# Sustainability in the built environment: the embodied carbon of steelwork in non-residential building structures

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## Glossary

The following glossary terms are largely extracted or adapted from the definitions in BS EN 15643-1, BS EN 15804 and the ICE (Hammond and Jones, 2010).

| | |
|---|---|
| Aggregated data | Data from different sources that has been processed and compiled into a summary for public reporting |
| Brief | Written document that states the client's requirements for a construction project |
| Building | Construction works that has the provision of shelter for its occupants or contents as one of its main purposes and is usually enclosed and designed to stand permanently in one place |
| Built environment | Collection of buildings, external works (landscape areas), infrastructure and other construction works within an area |
| By-product | Material that is a sub-derivative of the processing operations but is considered to have an economic value (e.g. facilitated by an application and market demand) |
| Carbon footprint | Amount of GHG emitted by a product and impacting on climate change. |
| Carbon Capture and Storage (CCS) | A system where carbon emissions from the steel industry are captured and recycled back into the blast furnace as a reducing agent in order to prevent the gases from escaping into the atmosphere |
| Client | Person or organisation that requires a building to be provided, altered or extended and is responsible for initiating and approving the brief |
| Cradle | The cradle is defined as being the earth i.e. material deposits within the earth |
| Cradle-to-cradle | Cradle-to-gate plus operation plus end-of-life processes. A complete life cycle study similar to cradle-to-grave but the disposal phase is replaced by recycling |
| Cradle-to-gate | Encompasses all input and output flow (as applicable from the system boundaries) between the confines of the cradle up to the factory gate of the final processing operation (i.e. before being delivered to the manufacturers) |
| Cradle-to-grave | Cradle-to-gate plus manufacturing, construction, operation and end-of-life processes. A complete life cycle study from resource extraction through to disposal phase |
| Cradle-to-site | Cradle-to-gate plus manufacturing and delivery to the site of use (installation site) |
| Component | Construction product manufactured as a distinct unit to serve a specific function or functions |
| Construction works | Everything that is constructed or results from construction operations |
| Decommissioning | Activities that change a building or an assembled system (part of works) from an operational status to a non-operational status |
| Dematerialisation | A strategy to reduce demand by utilising materials efficiently thereby reduces energy use and carbon emissions (e.g. the adoption of high strength steel demands fewer raw materials to be used to achieve the same product performance as normal steel.) |
| Design life | Service life intended by the designer |
| Disaggregated data | Constituent data collected from source that can be processed and compiled to form aggregated data |
| Disassembly | Restoration of used durable products for re-use |
| Disposal | Waste treatment operation other than recovery |
| Downstream process | Process that follows a given life cycle stage |
| Durability | Ability to maintain required technical performance throughout the service life subject to specified maintenance under the influence of the foreseeable actions |

| | |
|---|---|
| Economic impact | Change to the economic conditions, whether adverse or beneficial, wholly or partially resulting from construction works, part of works, processes or services related to their life cycle |
| Embodied carbon (EC) | GHG emissions associated with the manufacture, use and eventual disposal of a product |
| Embodied energy (EE) | The energy consumed during the manufacture, use and eventual disposal of a product |
| Environmental impact | Change to the environment, whether adverse or beneficial, wholly or partially resulting from construction works, part of works, processes or services related to their life cycle |
| Functional requirement | Type and level of suitability or usefulness of a building or assembled system which is required by the users or regulations, or both |
| Greenhouse gases (GHG) | Gases that when released into the atmosphere absorb and emit thermal infrared radiation. These gases trap heat within the atmosphere thus contributing to climate change |
| Heat of hydration | The heat from the exothermic chemical reaction between water and cement that needs to be controlled to avoid the cracking of concrete |
| Lateral torsional buckling | The tendency for steel beam to twist onto its weakest axis when the compression flange is free to displace laterally and rotationally |
| Life cycle | Consecutive and interlinked stages of a product system, from raw material acquisition or generation from natural resources to final disposal |
| Life cycle assessment (LCA) | Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle |
| Life cycle inventory (LCI) | Phase of life cycle assessment involving the compilation and quantification of inputs and outputs for a product throughout its life cycle |
| Maintenance | Combination of all technical and associated administrative actions during the service life to retain a building or an assembled system (part of works) in a state in which it can perform its required functions |
| Modulus of elasticity | Also known as Young's Modulus, is a measure of stiffness of an elastic material and defines the ratio of stress (force per unit area) over strain (deformation over initial length) |
| Non-renewable resource | Resource that exists in a finite amount that cannot be replenished on a human timescale |
| Once-through cooling | A continuous single pass flow of large quantities of water from one source to the plant that needs cooling and then back to the source. |
| Operational carbon (OC) | GHG emissions, other than embodied, associated with the in-use performance of a facility, which could be from heating, cooling, lighting and ICT (Information and Communications Technology) |
| Performance | Expression relating to the magnitude of a particular aspect of the object of consideration relative to specified requirements, objectives and/or targets |
| Primary energy | Energy that has not been subjected to any conversion or transformation process |
| Primary steel | The load-bearing and stabilisation components of a steel frame that transfer horizontal and vertical loads to the foundations. |
| Project specification | Specification of construction works for a specific project that prescribes the construction work and the construction products to be used and how they are to be applied |
| Rate of carbonation | The rate at which carbon dioxide from the atmosphere reacts with the calcium hydroxide in the cement paste of concrete, causing reinforcement to corrode. |
| Recovery | Waste treatment operation that serves a purpose in replacing other resources or prepare waste for such a use |
| Recycling | Recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes |

| | |
|---|---|
| Refurbishment | Modification and improvements to an existing building in order to bring it up to an acceptable condition |
| Re-use | Operation by which products or components that are not waste are used again for the same purpose for which they were conceived or used for other purposes without reprocessing |
| Site | Specified area of land where a building is defined to be located and construction works of the building will be undertaken |
| Secondary fuel | Fuel recovered from previous use or from waste which substitutes primary fuels |
| Secondary steel | Components forming part of the steel frame whose failure would not affect the overall integrity of the structure |
| Sensitivity analysis | Systematic procedures for estimating the effects of the choices made regarding methods and data on the outcome of a study |
| Social impact | Change to society or quality of life, whether adverse or beneficial, wholly or partially resulting from construction works, part of works, processes or services related to their life cycle |
| Sustainability | Ability of a system to be maintained for the present and future generation. |
| System boundary | Interface in the assessment between a building and the environment or other product systems |
| Technical building system | Technical equipment for heating, cooling, ventilation, hot water, lighting or for a combination thereof |
| Technical requirement | Type and level of technical characteristics of construction works or part of works, which are required or are a consequence of the requirements made either by the users or by regulations, or both |
| Transparency | Open, comprehensive and understandable presentation of information |
| Tertiary steel | Metal works such as handrails and open-mesh flooring that can be bought off the shelf |
| Triangulation | The use of more than one study method in order to enhance the validity of an outcome |
| Upstream process | Process that precedes a given life cycle stage |
| User | Person or organisation for which a building is designed (including building owner, manager and occupants) |
| Waste | Substance or object which the holder discards or intends or is required to discard |

## Abstract

This thesis describes a doctoral research undertaken on the embodied carbon of steelwork used in non-residential buildings. The broad area of sustainable development in the built environment is reviewed first and a reasoned rationale for the narrowing of the research topic to structural steelwork provided. The research then concentrated on steel, from the energy-intensive steelmaking process to the 100% recyclability of steel components at the end of a building life. Carbon emissions and energy consumption at various stages of steel production, manufacture, construction, maintenance and end-of-life are reviewed in detail. It has been established that a significant amount of research and energy saving initiatives are underway in the steelmaking industry. However, although research is taking place in the downstream processes, the effort is not well co-ordinated, resulting in numerous gaps in existing environmental data. In an attempt to close some of these gaps, a case study has been carried out on the fabrication and erection phases of a real steel building structure. The various activities, from procurement of materials to the erection of the steel frame on site, are described in detail. Furthermore, steel quantities of the fabricated frame were recorded during the case study, from which the carbon emission of the building was calculated using the British Constructional Steelwork Association (BCSA) Carbon Footprint Tool. This carbon footprint was estimated to be 12498 $tCO_2$ from the 4747 tonnes of steel, giving an average emission figure of 2.63 $kgCO_2/kg$ for the cradle to end-of-erection boundary case. The building had internal plan dimensions of 94m by 57m, which gave a carbon footprint of 2.3 $tCO_2/m^2$ of floor area.

# 1 Thesis introduction

The purpose of this thesis is to present a doctoral research that has been undertaken on the carbon footprint of primary steelwork for non-residential building structures.

According to Phillips & Pugh (1987), undertaking a research project is a mammoth task with varying difficulties that range from an over-ambitious scheme, fading of initial excitement, tedious work for a long period and lack of tangible progress at times. All these difficulties are usually caused by time mismanagement and lack of planning. The programme for this research was broadly based on Howard & Sharp (1983) seven step sequence of: identifying an area of interest; topic selection and focus; approach; research plan; data collection; data analysis; and presentation of findings.

The research started with a literature review to help place the subject within existing knowledge. The feasibility of the whole project became clearer through this literature review, which informed the approach to be followed and enabled the smooth progression of subsequent phases. Furthermore, familiarity with the most recent research helped to mitigate any weaknesses in the project that may have necessitated the revisiting of later phases, potentially causing significant financial and programme drawbacks.

The objective of this research is to understand how much embodied carbon is emitted in each process of primary steel production and use, enabling the effective management of the building carbon footprint and to direct efforts to hotspots that have the most impact. Chapter 2 discusses the principle of sustainable development and how this is linked to the literature review undertaken in this research. The chapter defines sustainable development, current legislation and the relationship between operational and embodied emissions. The details of the doctoral research are then established in Chapter 3, with the focus on the compilation of steelwork data from existing literature as well as from a real building project.

Theoretical approaches, methodology and methods are addressed in the Chapter 4, highlighting those that are employed for this research. The research involves a literature-based interrogation of existing environmental databases and the collection of observational data from the industry, which fall into an interpretivism approach. The overarching qualitative methodology adopted for this research is constructive research with a case study adopted for the field work.

Essentially, Chapters 5 to 7 establish the existing knowledge on steel and databases that is then used as the basis for the argument presented in subsequent chapters. Chapter 5 focuses on the steelmaking process, its history and the impact of chemical composition, heat treatment, fabrication and the engineering properties of steel. Present levels of steel production, use and distribution are covered in Chapter 6. Life Cycle Assessment tools are briefly discussed in Chapter 7, together with environmental data from one of the life cycle inventories currently available in the industry. Chapter 8 then follows with a detailed review of the environmental impact of each stage of steel production, manufacture and use from cradle to grave.

Chapter 9 and the associated Appendices 1 to 4 cover the case study carried out on a real steelwork building. This chapter documents the various stages and activities involved in the fabrication and erection phases of this non-residential building project. According to Yin (2009), a case study is considered a contribution to knowledge in its own right as it provides a better understanding of real world events. Indeed, this unique catalogue of information can be processed and interpreted in different ways by other researchers in future.

The analysis carried out on the whole research and the findings are presented in Chapter 10 and Appendix 5. The research is then summarised in the concluding Chapter 11, together with its expected contribution to knowledge and recommendation for further research. Figure 1.1 below details the process model for the research.

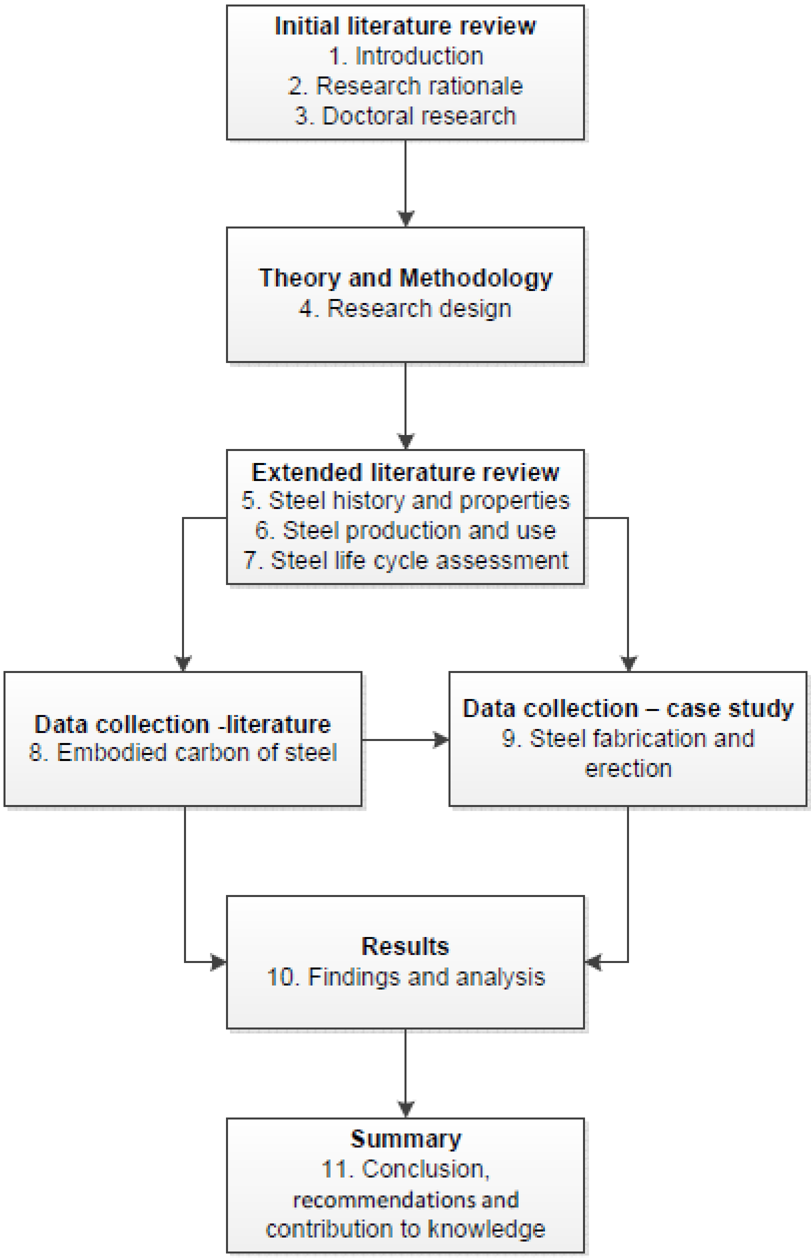



**Figure 1.1: Research process model**

# 2 Research rationale

Investigations into the phenomenon of climate change goes back as far as John Tyndall's work of 1858; it is understood as the process whereby some of the sun's rays, radiating from the Earth's surface, are reflected back to the Earth by the greenhouse gases (GHG) in the ozone layer resulting in global warming (Hulme, 2009). The majority of gases with two or more different atoms make up the GHG, but the most prevalent are carbon dioxide ($CO_2$), methane ($CH_4$) and nitrous oxide ($N_2O$). Owing to $CO_2$ being the dominant gas, environmental impact is often referred to as the carbon footprint and the inclusion of other GHG emissions is expressed as carbon dioxide equivalent ($CO_{2e}$).

Global warming and the consequent need for the sustainable use of natural resources are among today's major environmental challenges. Other environmental issues include: ozone depletion potential; water extraction; toxicity to humans and biodiversity; waste disposal; acidification; eutrophication; and photochemical ozone creation (BREEAM, 2011).

For over thirty years, sustainable development has been a "buzz" phrase in the UK construction industry. Sustainable development first came to the fore in mainstream discussions in the World Conservation Strategy (IUCN, 1980) and the term was propelled to prominence by the Brundtland Report, *Our common future*, of the World Commission on Environment and Development (WCED, 1987). These and subsequent international agreements have, over time, cascaded down into national policies and regulations.

Sustainability is a balance of maintaining economic growth, forging social progression and the effective protection of the environment (including the responsible use of natural resources) – the so-called "triple bottom line". Due concern should be paid to all three aspects without over-commitment to any one of them. For the purpose of this research, sustainable development is defined as development that "meets the need of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 24).

The Intergovernmental Panel on Climate Change 4$^{th}$ Assessment Report (IPCC, 2007) states that the global temperature increase should be kept below 2.4$^{o}$C if catastrophic effects of climate change are to be avoided. It recommends that this can be achieved if the 2050 global greenhouse emissions are reduced to below 50% of the 1990 values. In the UK, this target has been enacted in the Climate Change Act of 2008. Not only does this present a significant challenge, but also serious concerns, because the current emission levels are already much higher than those of 1990 and the world population is estimated to increase from the current 7.3 billion to 9.7 billion by 2050 (UNDESA, 2015). Global steel production is predicted to have nearly doubled by then and, therefore, emissions need to reduce to a quarter of the predicted 2050 figures if the target is to be met.

The built environment has a major influence on sustainable development with land use and energy consumption considered as the two of the main contributors (Uher, 1999). Buildings consume about 32% of the world's natural resources, 12% of fresh water and 40-50% of the world's energy (OECD, 2003). Furthermore, the building industry accounts for about 55% of UK greenhouse gas emissions and 40% of landfill waste (Atkinson et al., 2009).

The majority of GHG emissions in buildings are produced by mechanical ventilation, cooling, powering of equipment and artificial lighting. Heating in the UK also contributes to carbon emissions although it only accounts for a relatively small proportion because it uses natural gas as fuel (SCI, 2003).

As a consequence of all the above issues, the built environment needs a deeper understanding of sustainable development in order to reduce GHG emissions and the demand for energy, land, water and other natural resources.

From energy use and emissions data compiled by the International Energy Agency, the estimated total global GHG emission for 2005 was 44 $GtCO_{2e}$. Whilst the total emission is expected to increase on an annual basis, the proportions of each sector are relatively constant (Allwood and Cullen, 2012). Nearly two thirds of the total emissions are released from industrial processes, and the remainder are from agriculture and land use changes such as deforestation. The above fraction of the industrial emissions is made up of 31% buildings use and 27% transportation.

For the UK construction industry, the recent government focus has been on reducing the GHG emissions from the use of buildings and transportation, both because of the high emissions noted above and also the opportunities that are available to reduce these impacts. Operational energy and emissions primarily depend on building design, layout and orientation. Further improvements can be achieved through better insulation, sealing and air-flow design, but rarely are these emissions affected by the choice of the structural frame (SCI, 1998). The UK government intends to reduce to zero the operational carbon of homes and non-residential buildings by 2016 and 2019 respectively through making all new and refurbished buildings more energy-efficient (Communities, 2007). Figure 2.1 below shows the improvements in operational emissions expected in the UK.

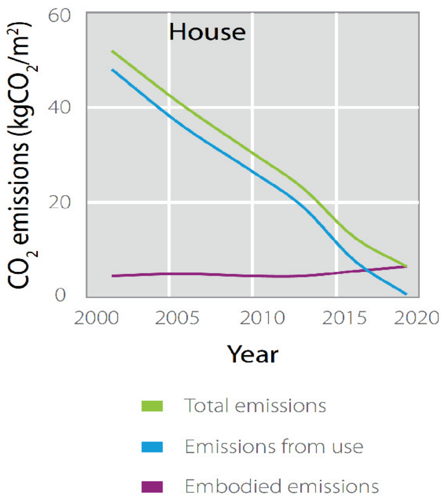



**Figure 2.1: $CO_2$ emissions per square metre of buildings (Allwood and Cullen, 2012)**

In addition to operational GHG emissions, Figure 2.1 shows embodied carbon (EC), which is the carbon emitted in the process of manufacture, use and disposal of a product. In the case of steel, EC emissions are from the extraction of the raw materials (mining), production (steelmaking), processing of the semi-useful products into useful components (manufacturing or fabrication), delivery of the steel to sites (transport), assembly of components on site (construction), maintenance during service (maintenance) and ultimate disposal (end-of-life). A large proportion of the EC is from energy consumed during production, particularly the liquid state of the metal. In addition, steel production releases non-energy related carbon as a result of chemical reactions that occur in the furnace (Worldsteel, 2012b).

According to the *Redefining Zero* report (RICS, 2009), the proportion of embodied to total carbon is 60% for warehouses, 45% for offices, 30% for houses and 20% for supermarkets. Furthermore, the amount of energy used by a building in service depends on its fabric and, therefore, operational emissions are intrinsically linked to embodied carbon. The structural frame itself has about 25-30% of the total embodied energy of a typical office building (SCI, 1998).

Figure 2.1 above shows that the whole life operational emissions of a building are currently an order of magnitude higher than its embodied carbon. The graph also shows that this balance is changing rapidly as improved and more efficient building designs are reducing operational emissions towards zero. With time, the focus will soon be shifting to embodied carbon as its contribution becomes prominent, which will influence the type and manufacture of materials used in the construction industry (CPA, 2012).

This research explores the whole life of steel used for the construction of non-residential buildings. Initially, an extended literature review was performed to seek an in-depth understanding of steel as a construction material and highlight the processes that produce notable contributions to the EC footprint of buildings. This will allow for the controlled advancement of the use of steel in the construction industry and avoid mistakes that have been previously encountered. This was underpinned by the researcher's experience in the field of structural steelwork design and construction.

This review informed the rest of the research work that followed by identifying gaps in existing knowledge. The majority of environmental concerns, such as land use and water consumption, are prevalent in the initial mining and steelmaking phases of steel production. However, these aspects are only discussed briefly in this research as the focus is on GHG emissions.

It has been established that there is a lack of complete inventory data, especially for the fabrication to end-of-life phases. Furthermore, the little available information is based on average worldwide data. Therefore, a case study was undertaken on a steel structure to bridge, to a small extent, this gap in knowledge.

The need to halve the 1990 emissions by 2050 is extremely challenging and it can only be achieved by looking at every sector and reducing emissions wherever possible. Steel is a carbon intensive construction material and its trade straddles national boundaries: it is, therefore, essential to review its environmental impact on a global and not national scale.

# 3 Doctoral Research

The primary question that constantly came up during the initial literature review and in the daily activities of the researcher as a structural engineer was:

***Is the environmental data for structural elements readily available, accessible and credible?***

Already there are several environmental assessment methods, covering the whole building framework, that have been developed in the building industry. These are formulated to measure the sustainable use of the world's resources as well as the control of waste and emissions. Some of the assessment methods reviewed in this research include the Building Research Establishment Environmental Assessment Method (BREEAM, 2011), Leadership in Energy and Environmental Design - LEED (USGBC, 2011), Green Star (GBCA, 2011), Comprehensive Assessment System for Built Environment Efficiency (CASBEE, 2011), CEEQUAL (2011) and the Code for Sustainable Homes (Zero Carbon Hub, 2009).

In all these schemes, the projects are assessed against a detailed criteria based on the environmental and social issues. The issues addressed by BREEAM (UK), LEED (USA) and Green Star (Australia) are listed in Table 3.1 below. The schemes have sets of tools and manuals to help with the scoring, justification and recording of information, which are verified by an independent certifier. Projects are encouraged to employ an assessor right at the outset in order to maximise input, minimise cost and encourage gradual compilation of the required supporting evidence. However, retrospective assessments are equally valid and acceptable.

**Table 3.1: Environmental and social categories - BREEAM, LEED and Green Star**

| BREEAM | LEED | Green Star |
|---|---|---|
| Management | Integrative process | Management |
| Health and Wellbeing | Indoor Environment Quality | Indoor Environment Quality |
| Energy | Energy and atmosphere | Energy |
| Transport | Location and transportation | Transport |
| Water | Water efficiency | Water |
| Materials | Materials and resources | Materials |
| Land use and ecology | Sustainable sites | Land use and ecology |
| Waste | (refer to materials) | (refer to materials) |
| Pollution | (refer to energy and atmosphere) | Emissions |
| ( included in sections above) | Innovation and design | Innovation |
| ( included in sections above) | Regional priority | ( included in sections above) |

Each country has a set of priorities which is used to devise regulatory environmental thresholds. The above assessment schemes are then used to measure the performance of a specific project in relation to these set limits. The award thresholds for the different schemes are listed in Table 3.2 below.

**Table 3.2: Award thresholds for BREEAM, LEED and Green Star**

| BREEAM | | LEED | | Green star | |
|---|---|---|---|---|---|
| Award | Score (%) | Award | Score (points) | Award | Score (points) |
| | | Unclassified | <26 | 1 star - poor | 10-19 |
| Pass | 30 | Certified | <33 | 2 star - Below average | 20-29 |
| Good | 45 | Silver | <39 | 3 star - Above average | 30-44 |
| Very Good | 55 | Gold | <52 | 4 star - Best practice | 45-59 |
| Excellent | 70 | Platinum | <70 | 5 star – Excellent | 60-74 |
| Outstanding | 85 | | | 6 star - World leadership | 75+ |

This study has highlighted that these various methods essentially adopt similar approaches, although there are subtle differences between them. Consequently, only the environmental issues considered by the commonly and widely used BREEAM were reviewed in detail.

BREEAM (2011) primarily focuses on technical building systems because currently a large part of the operational carbon footprint is related to energy use. Under this system, the structural engineer has a few credits to score, which the researcher considered disproportionate based on the fact that more than 50% of the building mass is its own structural weight and that the structure and roof contribute to half of the embodied energy of the building (DEW, 2007).

The main difficulty with BREEAM, or the other assessment methods for that matter, is that material choice is based on the comparison of indistinct environmental parameters that cannot be accurately measured, sometimes with regional variations (Ding, 2008). Based on the experience of the researcher, environmental assessments are complex and often parameters are either double-counted or ignored. Furthermore, achieving environmental awards costs money and, consequently, not all projects embrace these assessment schemes. If environmental information is simplified, transparent and readily available, then perhaps more projects will be encouraged to embrace sustainable development.

It is apparent that responsible material sourcing, which features in nearly every section of BREEAM, is one of the key environmental considerations. Yet it is theoretically feasible to achieve the highest “BREEAM Outstanding” rating without achieving any score under the “materials” section (BRE, 2011). Table 3.3 below shows the number of BREEAM credits available in this section.

**Table 3.3: Available credits in the materials section of BREEAM**

| Index | Credit | Credit Aim | Number Of Credits |
|---|---|---|---|
| Mat 1 | Material specification (major building elements) | To recognise and encourage the use of construction materials with a low environmental impact over the full life cycle of the building (external walls, windows, roof, upper floor slabs, internal walls, floor finishes/coverings) | 6 |
| Mat 2 | Hard landscaping and boundary protection | To recognise and encourage the specification of materials for boundary protection and external hard surfaces that have a low environmental impact, taking account of the full life cycle of materials used | 1 |
| Mat 3 | Reuse of building facade | To recognise and encourage the in-situ reuse of existing building facades | 1 |
| Mat 4 | Reuse of building structure | To recognise and encourage the reuse of existing structures that previously occupied the site | 1 |
| Mat 5 | Responsible sourcing of materials | To recognise and encourage the specification of responsibly sourced materials for key building elements (structural frame, ground and upper floors, roof, external and internal walls, foundations and staircases) | 3 |
| Mat 6 | Insulation | To recognise and encourage the use of thermal insulation which has a low embodied environmental performance relative to its thermal properties and has been responsibly sourced | 2 |
| Mat 7 | Designing for robustness | To recognise and encourage adequate protection of exposed parts of the building and landscape, therefore minimising the frequency of use of replacement of materials | 1 |

Arguably, structural engineers can design buildings without due consideration to robustness or responsible material sourcing but their projects could still achieve excellent overall BREEAM scores. On all the BREEAM projects that the researcher has been involved in since 2000, assessors have not pursued these material credits because of the difficulty in demonstrating compliance.

The majority of the existing literature on sustainability has been developed or managed by particular groups such as the Concrete Society or Worldsteel, who have commercial interests in the subject under study. Newman (1999) observed that knowledge is constructed and reconstructed with the authors adding "particular truths of their own" to each episode. Owing to sustainability being a subjective matter, it is possible for readers to have a different view to sustainability indicators (Haapio and Viitaniemi, 2008). Indeed, the researcher concurs with Oti and Tizani (2015) that each building profession, be it architectural, structural, mechanical or electrical, must be responsible for the sustainable performance of its design.

Other areas of concern are that environmental data availability is inadequate and some of the information in databases is provided by manufacturers without independent verification (IStructE, 2011). In some instances, available data has certain boundary conditions attached to it such that secondary information derived from such databases is not readily reliable. Even after ignoring reliability issues, Oti and Tizani (2015) recognised that there is still no comprehensive data to cover all building materials.

Having established the gaps in knowledge, this research aims to establish the carbon emissions of primary steel, one of the most commonly used structural materials. The study is restricted to steelwork on the basis of the researcher's interests, profession, and experience in the design of buildings as a structural engineer. Steel is a fascinating material because of its complex manufacturing process, which includes material movements across national borders. In the UK, the steel construction sector is well established with approximately 70% of multi-storey structural frames being built in steel. Furthermore, about 95% of low-rise industrial buildings have steel frames (SCI, 2003).

Due consideration has been given to what was practical and achievable within the available timescale, access to information and financial commitments to complete the programme. As a consequence, the research topic has been narrowed down to non-residential buildings. This research will involve the interrogation of existing databases and collection of data from a real steelwork building project using a case study to either supplement or verify existing information.

Considering all the above, this doctoral research will concentrate on the embodied carbon footprint of steelwork as a construction material in the non-residential building industry and is entitled:

"**Sustainability in the built environment: the embodied carbon of steelwork in non-residential building structures**."

The aim of the research is summarised as:

**"To verify if embodied carbon data for steel building structures is adequate and readily available."**

With the two main objectives being:

- **To investigate existing environmental databases and compile data used for structural steel;**
- **To collect physical data from steel fabrication, expedition and erection phases in order to verify and/or complement existing data.**

Although the *Inventory of Carbon & Energy (ICE)* (Hammond and Jones, 2011) and Worldsteel were the main sources of aggregated data used in this research, there are other Life Cycle Inventory (LCI) databases available as detailed in Chapter 7. The disaggregated data collected through the case study was processed using the BCSA Carbon Footprint Tool (SCI, 2011) to establish the carbon emission of the steelwork under study before a comparison with the existing aggregated data was made.

# 4 Research Design

Traditionally, research started from theories where hypotheses can be made and tested by collecting data. Analysis of the data can then confirm or falsify the theory thereby creating an intrinsic link between theories, data collection and analysis. Thus the answer to a research question is knowledge, which according to Knight and Turnbull (2008) is typically defined as "justified true belief."

However, the majority of research in the built environment starts with an observation and an inquisitive mind (research question) from which theories are generated (Gill and Johnson, 2010). As the case for this research, the questions emanate from practice and the objective is to build knowledge from it.

According to Grix (2004), the epistemological paradigm or the philosophical process pursued to get to data collection and analysis techniques needs to be clearly set out at the outset and the researcher bound by its constraints at all times. Saunders et al. (2012) simply refers to this epistemological paradigm as research design. This is basically a plan of how the research will be performed and generally comprises objectives, methodology, data sources, analysis and limitations (ibid.) It also involves setting clear auxiliary statements and operational definitions to ensure that the source and quality of justification of knowledge are reputable as well as to facilitate future revisions as more knowledge is discovered (Bechtel, 1988).

The experience of the researcher and the intended audience play a part in the choice of a research design. Indeed, a research design is a record of the researcher's perspective of knowledge in which light the readers need to review the importance and utility of the findings. Not only does research design assist the researcher to focus on the selected subject of study but also allow a logical presentation and defence of the work.

In philosophy, the question of knowledge derivation goes as far back as the Ancient Greek civilization and is linked to the infamous scholars such as Socrates and Aristotle. Different categories of knowledge have emerged over the years, making philosophy a difficult subject to comprehend. This is exacerbated by numerous different schools of thought that have evolved particularly over the last three decades (Dainty, 2008). Philosophical terms have been used loosely and interchangeably (Knight and Turnbull, 2008), often with misleading and unclear links. Even popular models, such as the research onion (Saunders et al., 2003; 2007; 2012), widely used in recent years have been evolving and adapted with time. For the purpose of this research, a recently adapted version of the research onion shown in figure 4.1 below shall be adopted.

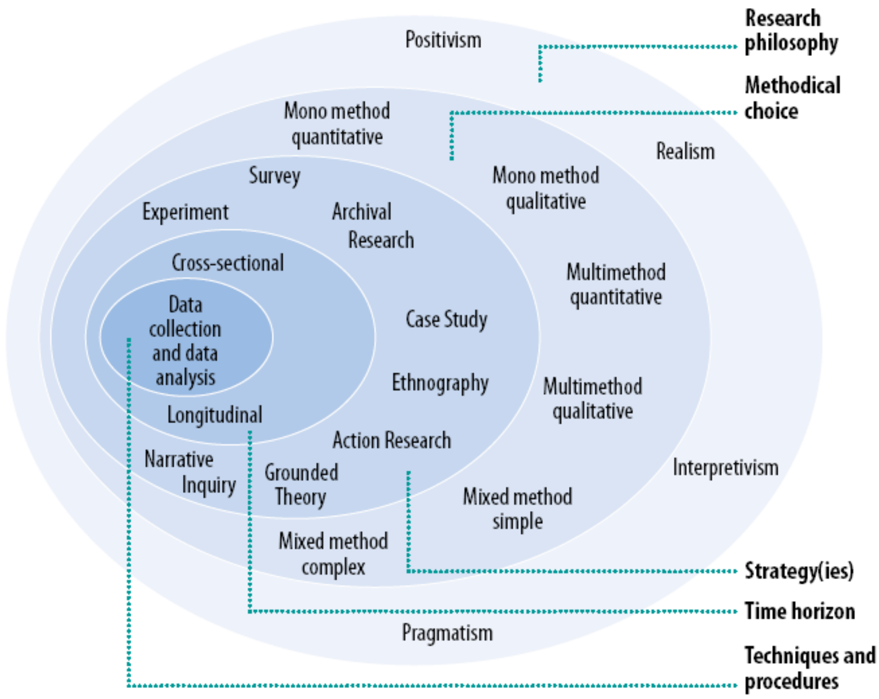



Figure 4.1: The research onion (Sanders and Tosey, 2012)

By the end of this chapter, the researcher aims to have explained what and how data has been collected and analysed for this research. This is done with the aid of Figure 4.1 above where each layer of the onion is explicitly reviewed in the context of this research, thereby defining the research design. Any variations from Figure 4.1 are explained in Subsection 4.2 as each layer is reviewed. Before starting to peel the onion, the following Section 4.1 defines the overriding terms of philosophy, epistemology, ontology and axiology; that have an all-embracing influence on the research design.

## *4.1 Philosophy, epistemology, ontology and axiology*

Philosophy is the fundamental principles that all knowledge can be explained (Runes, 1942). The main five branches of philosophy are metaphysics (study of existence), epistemology (study of knowledge), ethics (study of action), logic (study of linguistics) and aesthetics (study of art). This doctoral research seeks to contribute to the knowledge base and therefore falls into the epistemology branch.

Epistemology is the theory that covers the construction of knowledge and its justification (Dawood and Underwood, 2010). In any area of enquiry, epistemology is concerned with the structure, sources, limitations and conditions of knowledge derivation. It covers a wide range of positions from positivist on one extreme to interpretivist on the other, with realist and pragmatist stances falling in the middle (Saunders et al., 2012).

Ontology is a philosophical theory concerned with the nature of reality and it divides knowledge derivation into two categories of objectivism and subjectivism (Weber, 2004). Objectivism claims that reality and social actors are independent of each other, implying that knowledge derivation is not influenced by human cognition and its surroundings. In contrast, subjectivism assumes the interdependence of reality and the social actors. Thus for this category, knowledge is influenced by its creators and is a consequence of the actors' ways of life.

Dawood and Underwood (2010) defined axiology as the quality of a study, which encompasses the fields of ethics and aesthetics. This has been more commonly referred to as value theory in recent years, referring to the value that knowledge brings to its intended audience. In social science research, ethics and aesthetics are further broken down into a range of subjects such as social, economic, sustainability, appearance and logical benefits. According to Encyclopaedia Britannica (2015), these subjects were often considered in isolation and axiology is credited for unifying their consideration. The researcher concurs with Saunders et al. (2007) that axiology is one of the overarching philosophies that come before the outer skin of the research onion and that value is demonstrated in all stages of research, even in the choice of a research topic.

The above discussed principles act as substructure to knowledge research and hence influence the methodology, methods and sources of data. The following subsections discuss the research philosophy, starting with the outer skin of the onion in Figure 4.1.

## *4.2 Research philosophy*

Research philosophy is often referred to as theoretical approach as it represents the perspective from which the research is viewed and considered. Depending on the context in which beliefs are developed, the level and quality of justification will differ. As mentioned above, knowledge can be considered as objective which is independent of the observer's standpoint, or subjective and dependent on the values, culture and language of the observer (Runeson and Skitmore, 2008).

The built environment is not a discrete academic discipline and consequently has no single standard theoretical approach. According to Guba and Lincoln (1994), there are significant gaps between the extreme quantitative (objective knowledge about an objective reality) and qualitative (subjective knowledge about a subjective reality) researches. Social science as an area of study in the built environment naturally has both objective and subjective aspects embedded within it and, as such falls into this gap.

Figure 4.1 (Saunders and Tosey, 2012) lists four research philosophies of **positivism, interpretivism, realism** and **pragmatism** and these are briefly defined below. It is curious to note that Saunders et al. (2003) only lists positivism, interpretivism and realism whilst Saunders et al. (2007) lists several other theories such as objectivism and functionalist. The point here is that philosophical terms are often loosely and interchangeably employed and therefore it is always important to define the terms of reference of each research. Furthermore, it is the researcher's view that these additional categories of research philosophy are always derivatives of the two fundamental groups namely objective (positivism) and subjective (interpretivism) theories.

Platonic, rationalism, empiricism and **positivism** theories all have foundationalist approaches assuming an orderly reality and objective knowledge. These are often referred to as scientific or more recently as quantitative research. This approach is based on structured and methodical experience associated with scientific experimentation with an emphasis on explaining, and not understanding, human behaviour. Thus, quantitative theories believe in observational validation of knowledge (Grix, 2004).

Pyrrhonic, **interpretivism** and post-modernism epistemologies conversely have Sceptics values that view knowledge as dependent on the observer and social practices and all describe qualitative research. Research in this category often focuses on people (as opposed to objects) in their natural environment in order to draw subjective understanding, not explanation, of their human behaviour. Compared to quantitative theories that have foundational information to build upon, qualitative approaches are value bound as they are based on a particular setting at a specific juncture, thus making theories in this category more difficult to improve. This discrete nature of social theories has, in part, caused obsolete theories that should have been rejected to remain in circulation (Bechtel, 1988).

**Realism,** which is further subdivided into direct and critical realism, considers what is detected by the human senses as the truth (Saunders et al., 2012). Direct realism argues that human senses provide an accurate presentation of reality that is independent of the mind. This is in spite of the fact that the senses are controlled by the mind, which in turn is influenced by life experiences. On the contrary, critical realism allows the findings to be further processed by the mind in order to establish the root cause (ibid.) Although realism is often linked with the scientific approach, perhaps due to its structured and cause-effect approach, it is the belief of this researcher that direct and critical realism are variations of positivism and interpretivism respectively.

In the true sense of the word, **pragmatism** in research is concerned with observing practical outcomes. It is built on the premise that one point of view cannot tell the whole story and that several realities may exist (Sanders and Tosey, 2012). The research design may, but not necessarily, involve several techniques or procedures in order to paint this pragmatic picture that is reliable and credible. This approach could be considered a halfway house as it can involve both qualitative and quantitative procedures.

From Section 3, this research involves the collection of data through literature review as well as through a case study carried out in the construction industry. This includes the interrogation of existing databases and observing the construction of a steelwork building in real time. Both objective and subjective meanings are drawn from the findings and linked to the carbon footprint of steelwork in the non-residential building industry. The rational for adopting these techniques is covered in Section 4.6 but it is apparent that a **pragmatism** philosophy is employed for this research.

## *4.3 Methodological choice*

This is often referred to as methodology and is the study of research methods, mainly focused on how specific knowledge can be acquired (Grix, 2004). In delineation, methods are the specific procedures such as postal surveys and interviews that are adopted in the gathering and analysis of data. This section focuses on the former, discussing the two competing deductive and inductive research methodologies and a mixture thereof.

Figure 4.1 has provided a non-exhaustive list that can be summarised into four main categorises namely quantitative (aka **deductive**), qualitative (aka **inductive**), **mixed method** and **multi-method**. As the terms *quantitative* and *qualitative* have already been used to define research philosophy in Section 4.2 above, the alternative *deductive* and *inductive* terms will be adopted in this section in order to avoid confusion.

**Deductive** research involves the empirical testing of a theory through observation of a social reality based on foundationalist philosophical assumptions. This approach entails the establishment of a clear and prescriptive strategy prior to data being collected and analysed using a single method and procedure. Examples of strategies that fall into this type of research methodology include experiments and analytical surveys. Although it is still dominant, a deductive methodology was until recently the only acceptable methodical choice to social science research (Dainty, 2008).

Conversely, **inductive** methodologies are qualitative in nature and involve the construction of theories from observations. This is borne out of the critique of the neutrality philosophies of quantitative approaches and the subjective nature of human behaviour. Inductive methodologies are underpinned by the philosophical assumption that knowledge is not natural but constructed and distributed in a medium and language that serve particular epistemological institutions (Usher and Edwards, 1994). As these are emergent methodologies, they lack established procedures and reliable strategies. Research is undertaken in natural settings with the methodology loosely prescribed at the start and evolving with time, at times leading to large quantities of date being collected. Examples of strategies that fall into this type of research methodology include ethnography and constructive research.

These two principal (deductive and inductive) methodologies can be mixed with each other to form multi- or mixed methods (Saunders et al., 2012). Consequently, mixed or multi-methods often fall between the extreme deductive and inductive methodologies. It is important to note that whilst mixing methodologies might be appropriate in addressing a particular research question, researchers need to be aware of the philosophical commitments that each individual methodology imposes on how and what is to be investigated (Creswell, 2009).

As the name suggests, **mixed method** utilises aspects from both deductive and inductive methodologies to eliminate the inherent weaknesses of each individual strategy. Examples include transformative and concurrent designs. These methodologies evolved from social science research, where the consideration of deductive or inductive approaches alone was not considered adequate. Indeed, researchers usually exploit the strengths of both approaches, not only in the manner that data is collected and analysed, but also in the underlying philosophical approaches. It is therefore important for the researcher to consider the extent of mixing (merged or separated), weighting (equal or different) and timing (concurrent or sequential) of these methodologies (Creswell, 2009).

**Multi-method** also employs two or several methodologies in the same research in order to benefit from the inherent strength of each individual approach. However, all of the methodologies will either have deductive or inductive emphasises. There is no mixture of philosophical theories, procedures or techniques in this case. Thus, research carried out using this method is often referred to as either a multi-method quantitative or multi-method qualitative study (Saunders et al., 2012).

According to Gill and Johnston (2010), choosing a research methodology involves compromising between the underlying philosophical theories and practical considerations that include the research objectives, availability of financial and other resources, access to sources and prior training of researcher. Furthermore, ethical issues need to be considered

(Saunders and Tosey, 2012). This research adopts two strategies, constructive research and case study, both of which are inductive. Thus a **multi-method qualitative** methodology has been adopted to address the questions in this research and the justification and explanation for this choice is covered in the following Section 4.4.

## *4.4 Strategies*

A commitment has been made to a pragmatism philosophy and multi-method qualitative methodology in the above Sections 4.2 and 4.3 respectively. This implies that inductive strategies need to be chosen at this stage in order to remain within the established theoretical constraint (Gill and Johnson, 2010). This is borne out of the notion that there should be philosophical coherence throughout all the stages of research, from the theory chosen to the data collection methods employed.

Notwithstanding the above, it has also been established that inter-relations and theoretical boundaries are often considered porous (Saunders and Tosey, 2012). For instance a case study, which is often related with interpretivism can be justified to work for positivism. Indeed, both qualitative and quantitative data has been collected in the case study conducted in this research.

Various strategies exist in academic research and a majority of them can be adapted to work for this project. This layer of the onion in Figure 4.1 has listed several strategies including experiment, survey, case study, ethnography and action research. The list in Figure 4.1 is by no means exhaustive as several strategies have emerged over time. Indeed, one of the strategies to be employed in this research (constructive research) does not appear in Figure 4.1.

As research philosophy in general is outside the confines of this research, only a few strategies are briefly described below in order to highlight the typical inductive and deductive differences. True-experiment, quasi-experiment and analytical survey are examples of deductive strategies whilst ethnography, action research and descriptive survey form inductive methodologies. Each one of these strategies is briefly discussed in the subsections below before a case is made for the chosen strategies of constructive research and case study.

### 4.4.1 Deductive strategies

Laboratory or true-experiment is a well-established deductive approach that involves the measurement of changes to the dependent variable (the phenomenon whose change the research is designed to uncover) caused by the researcher's manipulation of the independent variable (features that cause the dependent variable to change). Experimental and control groups are designed into the procedure to neutralise the influence of extraneous variables (competing hypotheses that are not being directly investigated by the research). The assignment of subjects to the experimental and control groups can be done through random distribution or systematic controls (equivalent groups based on previously identified extraneous variables). This control of rival hypotheses preserves the internal validity of experimental outcomes and enables replication of the experimental investigations (Gill and Johnson, 2010). True experiments usually take place in laboratory conditions where the manipulation of independent variables and neutralisation of extraneous variables is under the complete control of the researcher (Creswell, 2009). As a consequence, true experiment in social sciences, where research is carried out in natural settings, is often inappropriate and rarely used.

A quasi-experiment is a deductive methodology that also shares the same logic and structured procedure as the true experiment but occurs in a natural everyday setting instead of under laboratory conditions. Whilst the natural setting improves the ecological validity of subsequent findings, their internal validity is compromised as the control over extraneous variables is reduced. Random or systematic distribution of subjects to experimental and control groups is not possible and thus comparable, rather than equivalent, groups are often adopted (Campbell, 1969). Furthermore, it is difficult to manipulate the independent variables in a quasi-experiment and consequently only the natural occurring variations are often observed (Gill and Johnson, 2010).

Analytical survey deductively develops or falsifies a theory using the logic of the true experiment but applying it in a natural setting (Creswell, 2009). As for the quasi-experiment methodology, the ecological validity is improved by the empathetic understanding and participatory observation that this collaborative approach presents but this is at the expense of the internal validity. Unlike experimental approaches, extraneous variables in a survey are controlled during statistical analysis (Ahlgren and Walberg, 1979). A literature review is therefore essential for the identification of these confounding factors, thereby facilitating the prior gathering of data necessary to enable control during the analysis process. Representative samples need to be assembled to ensure the population validity of the findings (Creswell, 2009).

### 4.4.2 Inductive strategies

Ethnography is a qualitative approach where a researcher is embedded into a cultural group and studies its behaviour through observation and interviews for an extended period of time. The research strategy is loosely prescribed and evolves with the actual behaviour and responses of this cultural group in its natural setting (Creswell, 2009). The unstructured nature of this approach implies that it cannot be easily replicated. Furthermore, the focus is on a small social group meaning that extending the results to the wider populations is a challenge in the majority of cases. Thus, both reliability and population validity are usually problematic for this approach. However, its natural setting and use of methods that avoid contamination of data and minimise researcher’s influence makes the ecological validity of this methodology undisputed. Ethnography has some overlapping principles with case study but it has not been adopted as a strategy for this research on the grounds that the investigated natural setting is not a cultural group per se.

Action research is usually ascribed to Kurt Lewin (Masters, 1995) and follows the logic of experimentation but, like the quasi-experiment, is undertaken in a natural occurring setting. Although there are no principal methodological protocols, this participatory inductive methodology has developed and detached itself from its original links with quantitative theories and deductive methodologies. The entry stage of action research is the establishment of a link between the practitioner and the researcher, followed by the identification of the problem. A diagnosis of the problem and how it will be solved is then undertaken. The general behavioural protocol of all stakeholders is also planned at this stage, including who will participate and when. This will also include the establishment of the potential findings and evaluation criteria. The findings will lead into some intervention being taken by the client organisation, with more data being collected to evaluate the effect of that change as it is actually implemented. Thus, action research is a long-term dynamic process where the findings are the solution to the initial problem but also the plan for the next stage of the research (Checkland, 1991).

This action research strategy is informed by qualitative theories and has process similarities with constructive research adopted for this study. Furthermore, the process of the researcher being embedded into a relevant practice and the inherent collaborative approach, to a certain extent, both apply to the case study proposed for this research. Unlike in experimental methodologies, where the researcher is assumed to have all the knowledge, action research integrates the practitioner and researcher contributions to enhance the findings and interpretations (Gill and Johnson, 2010). However, action research is not appropriate for this research mainly because this is not a long-term project involving several iterations.

Descriptive survey is an opposing methodology to analytical survey in that it inductively assesses and describes the features of a particular population at a specific juncture rather than deductively developing or falsifying a theory (Gill and Johnson, 2010). As in analytical survey, there is need to assemble an adequate and representative sample in order to ensure the population validity of the findings. Descriptive surveys are also used in conjunction with other qualitative methodologies such as ethnography and action research.

### 4.4.3 Chosen strategies

Sections 4.4.1 and 4.4.2 above were presented only to demonstrate the differences between a diverse selection of inductive and deductive strategies. For this particular research, a multi-method qualitative methodology, employing constructive research and case study strategies, has been adopted. These two strategies are now discussed in detail below.

Following the discussion in Section 3, a preliminary literature-based research on steel building sustainability and environmental assessment methods was conducted in order to confirm the established gap in existing knowledge. These assessment methods, just like the whole subject of sustainability, are subjective; they are products of social institutions and practices and largely depend on the perspective of the observer. Each country has a set of assumptions and criteria tailored to its local requirements and conditions (Oti and Tizani, 2015). Although there is sincerity behind national commitments to sustainable development, the assessment criteria are unfortunately driven and controlled by powerful political and institutional pressures (Allwood and Cullen, 2012).

Once the gap in knowledge had been confirmed and the research enquiry set, the main part of the study involved two main stages of: 1) detailed literature-based study of steelwork as construction material and its carbon footprint and; 2) case study on the manufacturing and construction phases of a steelwork building.

The first part involved a thorough literature review of existing information, databases and LCA software used to quantify the carbon footprint of steelwork in building construction. To a certain extent, this information acted as the priori hypothesis to be verified by the data collection exercise in the second phase of the research (Ahlgren and Walberg, 1979).

The second phase of the research involved the collection of construction data from a real steelwork building during construction. This data was then analysed to either supplement or verify existing information.

If this research was only covering the data collection from the industry, then a case study would have been the preferred methodology. However, constructive research is considered to be the overarching strategy for this research as it also covers data collected through literature-based research. Indeed, a hierarchy of methodologies exists, with the case study being subordinate. In the context of this research, the case study is used to collect the qualitative and quantitative data from the construction industry that is then processed and linked to existing knowledge using the constructive research strategy.

#### 4.4.3.1 Constructive research

In constructive research, researchers are either practitioners themselves or they work with practitioners to theorise practical problems. According to Jarvinen (2007), this methodology is widely used in engineering applications where the utility, rather than the intrinsic value of a theory is of more concern. Constructive research starts with an awareness of a problem followed by conceptual development, technical development, evaluation and then the results.

Conceptual development refers to the investigation of various options culminating in a model that is then fed into the next stage. The technical development stage processes the preferred scheme in detail and produces a reality, be it a new physical artefact, system or theory. In the evaluation stage, the researcher will test the effectiveness of the outcome (α-testing) in solving the original problem. However, it is often the subsequent third party testing (β-testing) that provides the important performance measure of its effectiveness and extent of application. This methodology is often referred to as improvement research because confirming and falsifying a theory are considered equally important.

This research seeks to provide a better understanding of steel carbon emissions in the building construction, obtain new data from the industry and convert it into general knowledge. If the outcome of this research is similar to that in existence then this will confirm that current assumptions are correct, whilst a different outcome will result in improved accuracy of carbon calculations. Gill and Johnson (2010) refers to this as symmetry of potential outcomes. Thus, both the successful and unsuccessful outcome of the research will be useful for the building industry. It is apparent that the requirements of this research are consistent with the constructive research strategy.

#### 4.4.3.2 Case study

Like Ethnography, a case study is an in-depth exploration of a particular activity or process using observations, interviews as well as review of written, audio and visual material. The researcher's role in a case study is established in a manner that facilitates the collection of data and is usually time-bound or limited to a specific activity (Creswell, 2009). Case studies produce empirical information linked to reality, resulting in theories being built from large quantities of data. As highlighted by Eisenhardt (1989), data from case studies is difficult to codify owing to its qualitative nature and consequently, building theories using this strategy is equally difficult.

The case study was used to investigate the processes and quantities of steel during the fabrication, expedition and erection stages of a real building structure. With the broad understanding of steel emissions established through literature review performed in the first part of the research, the case study was necessary to establish an in-depth understanding of these particular phases of steel lifecycle.

According to Proverbs and Gameson (2008), the validity of findings from a single case study will always be questioned. More so for the case study in this research, conducted on a highly unusual (both in dimensional scale and construction methodology) building. This is a 60m high single-storey industrial structure, roughly equivalent to a typical 20-storey building in the UK. It is therefore important to note that the case study was fittingly chosen in line with the particular objectives of this research. The ITER project is investigating the next generation of power supply using nuclear fusion with no residual GHG emissions or nuclear waste. However, the findings can only be considered to inform rather than represent other steel building projects.

The researcher was directly involved in monitoring the progress of the project and had access to relevant resources required for this exploration. There was no need to conduct formal interviews as the researcher was present during the majority of meetings and quality surveillances. Indeed, the focus of the case study was on observing the actual work being carried out as opposed to recording what the Subcontractor professed to have done.

Notwithstanding this, important information was occasionally recorded following responses to questions raised by the researcher and members of the construction team during meetings or inspections of the works. The results of this case study were compared with data collected from literature to validate the results. Thus, triangulation was performed through literature review, project information review and the physical observations to enhance the validity of the findings (Bryman, 2015).

## *4.5 Time horizon*

Saunders and Tosey (2012) describes time horizon as the time taken by a researcher to carry out a study. A cross-sectional research focusses on addressing a specific problem at a particular moment in time and strategies such as case studies or surveys are suitable for this type of investigation. Conversely, longitudinal research involves problems that required data to be collected over a prolonged period of time. In this instance, strategies such as action research and ethnography are more appropriate.

These terms should not be confused with the level of investigation to be conducted for which Proverbs and Gameson (2008) describes research as requiring either a longitudinal (in-depth) or transversal (broader) study. For instance, case a study can be limited to a single case of investigation to facilitate a detailed exploration (longitudinal) or a number of cases can be considered in order to investigate a wider correlation between these cases (transversal).

Access to information and time availability played a part in the selection of the case study employed in this research. The case study was conducted for nearly 30 months on a single construction project although it was in the last 16 months that the fabrication of the steel elements in the factory and erection of the components on site occurred. According to Saunders et al. (2012), this is considered as a cross-sectional time horizon.

## *4.6 Techniques and procedures*

Now that the theory and methodology has been established, this section deals with the core of the onion in Figure 4.1 involving data collection and analysis methods. Data collection techniques include observation, questionnaire and interviews, which need to be appropriately chosen within the constraints of the above strategies in order for the research to maintain coherence (Gill and Johnson, 2010).

### 4.6.1 Data collection

As mentioned above, a constructive research strategy has been employed for this project with a subordinate case study strategy for the field work. The first part of the research involved a detailed literature review and the outcome of this part is recorded in Chapters 5 to 8. The case study focused on the works of a steelwork subcontractor for the fabrication and erection phases of the Assembly Hall structural frame as detailed in Chapter 9. As the first part of the research was literature-based, the rest of this subsection focuses on the methods used for the case study.

The steel production was split between the Subcontractor factories in Portugal and Romania. The delivery of materials to site, the pre-assembly of the roof structure at ground level and the lifting of the heavy roof were sublet to other specialist Subcontractors. In addition to the activities of the main steel Subcontractor (Level 1), this research only covers the on-site activities of these other Subcontractors (level 2). Other entities involved in the monitoring and supervision of the works included the Contractor, Engineer, Employer and End-user as defined in Chapter 9.

The researcher was involved from the beginning to the completion of the steelworks as part of the Employer team. The data for this case study was collected during routine project quality controls. It is worth noting that, without the needs of this research, the researcher would have had access to the same level of project information. However, in addition to being a participant, the researcher assumed the role of observer thereby taking note of information that other participants would not identify as a matter of course.

According to Proverbs and Gameson (2008), a case study methodology can involve a number of data collection methods. In this case, data was collected from project documentation review as well as through observations at meetings, during site supervisions and factory inspections. Reviewed documentation included contractual documents, technical specifications, drawings, working procedures, correspondences (letters and e-mails), minutes of meetings, progress reports and quality assurance documents. The physical artefact itself, the steel frame, was inspected as it was being constructed piece by piece. All the data was considered primary information as it was collected in real time and at source during construction of the steel frame. Both the description of the activity and the researcher's personal reflection at the time were recorded in a notebook.

Care was taken in interpreting the project information as it was produced for a different purpose to that of this case study (Yin, 2009). Thus the researcher's involvement as inspector of the works had to be somewhat detached from the research in order to minimise bias. Furthermore, the Subcontractor was expected to behave differently during inspections involving the Employer team (as compared to when no Employer inspections were underway). Thus, in addition to the case study being focused on what was done rather than why it was done, a number of cases and documents had to be considered in order to paint a true reflection of everyday practices.

### 4.6.2 Data analysis

The result of this case study is a detailed record of the processes and steel quantities involved in the fabrication and erection of the structural steel frame, which is covered in Chapter 9 and the associated Appendices 1 to 4. This information alone is considered vital for the building industry but the researcher performed further analysis of the data in Chapter 10 to estimate the carbon footprint of the concerned steel frame.

The carbon footprint of the building considered in the case study was calculated using the BCSA Carbon Footprint Tool (v3) for the cradle to end-of-erection boundary case. This user-friendly tool, prepared by the Steel Construction Institute (SCI) for BCSA, comes with a detailed assessment methodology and user guide (SCI, 2011). The tool is very simple to use once the emission factors, boundary and methodology are established. The assumptions taken for the carbon footprint calculations carried out for this research are summarised in Chapter 7.

## *4.7 Summary*

This chapter explored the subject of philosophy and its influence on the research conducted and covered by this thesis. Following a review of the overarching epistemology, ontology and axiology, the research onion in Figure 4.1 was adopted in defining the rest of the research philosophy stages used in this study. The selected approach, which covers all the layers of the research onion, is summarized in the flowchart in Figure 4.2 below.

The findings and analysis of this research are documented in Chapter 10, where the disaggregated data from the case study is analysed using the BCSA Carbon Footprint Tool and compared with average aggregated figures obtained from existing literature. Consistent with the adopted constructive research theory, the results will either confirm or falsify the current beliefs (Jarvinen, 2007). The recommendations for further studies on the remaining gaps in knowledge identified through this research are detailed in Chapter 11.

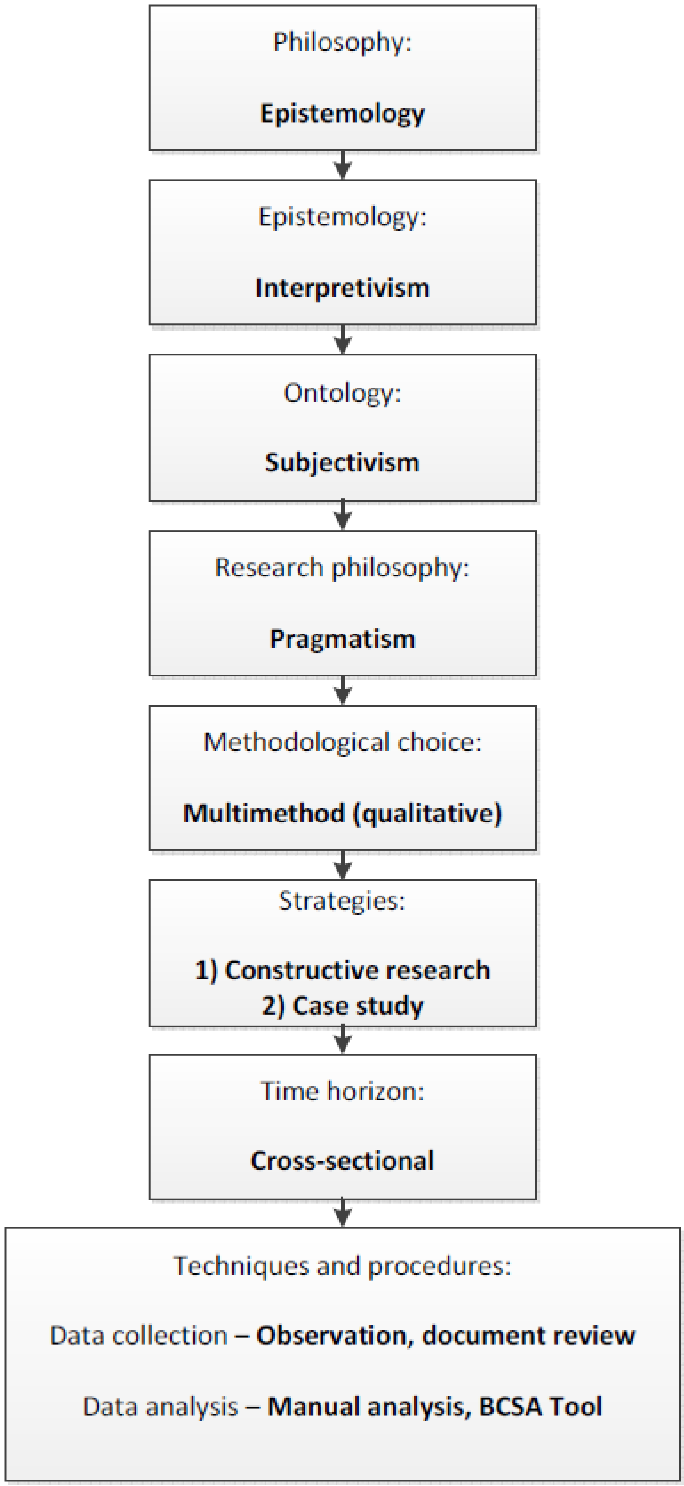



Figure 4.2: Research design flowchart

# 5 Steel

This section reviews the history of steel and how the demand for steel has risen to its present levels. The steelmaking process is then covered, including the impact of chemical composition, heat treatment and fabrication on the engineering properties of steel.

## *5.1 History of steel*

Steel is an alloy of iron, the metal which facilitated the industrial revolution of the 18$^{th}$ Century. Steel's prominence came in 1855 through the invention of the Henry Bessemer converter, whereby hot air was blown through liquid iron in the furnace in order to remove impurities. This process was immediately adopted by the UK steelmaking industry (Worldsteel, 2012b).

The Bessemer process facilitated the mass production of steel and brought about the second industrial revolution. This resulted in affordable steel products, transforming steel from a precious metal to one of the most common materials of this era. It is used in almost every sector including construction, machinery, automotive and transport. Apart from the change introduced by Robert Durrer in 1948 (IIMA, 2015), where hot air was replaced by oxygen for improved efficiency, the Bessemer process is still being followed in modern steelmaking.

By the turn of the 20$^{th}$ Century, there were large steelmaking companies in Europe and the USA, with production figures overtaking those of the UK (BCSA, 2006). Consequently, national tariff barriers existed for a good part of the 20$^{th}$ Century until the formation of free trade areas in Europe and Canada.

The steady increase in production that followed World War II was affected by the 1974 global energy crisis as shown in Figure 5.1 below. Together with a saturated market in developed countries, the crisis brought growth in steel production to a halt in the 1980s. The revival in demand came in the 1990s through developments in China, which in 2009 consumed about two thirds of the global iron ore. A steady growth has been maintained by demand in other developing regions, particularly in the other BRIC countries of Brazil, Russia and India (BCSA, 2006).

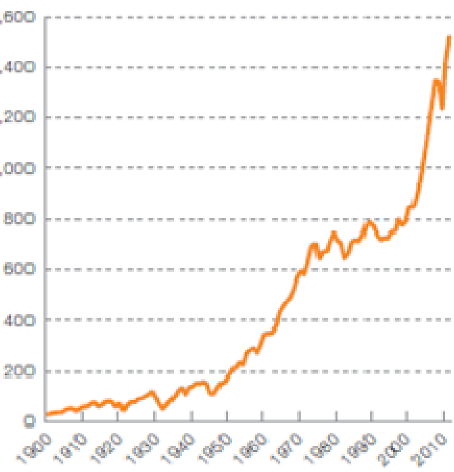



Figure 5.1: steel production growth rate in million tonnes (Worldsteel, 2012b)

Steel was a strategic national industry that benefitted from state support until the fall of the Soviet Union, among other things, led to a spate of privatisations in the early 1990s. Major acquisitions and mergers have recently led to the creation of global conglomerates such as ArcelorMittal. At present, China is the centre of attraction for trade in all things metal. It is importing ores from Australia and Brazil, machinery from Australia and Europe, scrap metal from the USA, steel and iron from Australia and Europe and, in return, exporting vehicles to the rest of the world (Allwood and Cullen, 2012).

## 5.2 *What is steel?*

Steel is a versatile structural material because of its combination of high strength, good strength to weight ratio, a wide range of material properties and product form, 100% recyclability, ready availability and affordability. It is a ferrous (i.e. it contains iron, as opposed to non-ferrous metals such as copper, aluminium and zinc) alloy with a number of other elements added in small quantities to achieve a variety of chemical compositions. The stock products from the steelmaking industry are structural sections, bars and plates, which are transformed into useful products through manufacturing. A small proportion of steel production consists of heavy forging and castings (SCI, 2003).

With strength levels ranging from 250N/mm$^2$ to 2000N/mm$^2$, steel can be formed into a wide range of different products. It has a constant modulus of elasticity up to yield strength but still has a high capacity of deforming plastically, making it a ductile material with good fracture toughness. Other useful properties include low thermal expansion and high melting temperatures (Allwood and Cullen, 2012).

The main problems of steel in the construction industry are corrosion and fire resistance. Although normal structural steel maintains strength to 300$^{o}$C, it progressively weakens at higher temperatures. Steel also needs to be protected from corrosion in adverse conditions. Both the hot strength and corrosion resistance of steel can be improved by chemical formulation but currently it is more cost effective to provide external protection (SCI, 2003).

## *5.3 The steelmaking process*

The term “steelmaking” is the process of transforming iron ore into stock products such as bars, plates and coils in the steel mill and the companies that carry out this work are described as the steel industry. Although variations exist, there are essentially three production routes for steel, namely the blast furnace-basic oxygen furnace (BF-BOF), the electric arc furnace (EAF) and the open hearth furnace (OHF). According to IIMA (2015), OHF can take up to 12 hours to convert 350 tonnes of iron to steel whereas modern BF-BOF furnaces will take 40 minutes. Owing to its energy intensity and severe environmental impact, the use of the OHF method is in decline with only four known furnaces remaining in existence today (Worldsteel, 2012b). Figure 5.2 below shows an overview of the BF-BOF and EAF steelmaking process.

In the blast furnace (BF), iron ore, coke (coal heated at 1000$^{o}$C to form a sinter), and limestone form the bulk of the raw materials (the burden). Hot air and traces of other materials are blown in from the bottom to control the chemical reaction, achieve the desired chemical composition and for deoxidisation, thereby reducing impurities. Coke reacts with air to form carbon monoxide (CO), which in turn reacts with iron oxide (at around 2000$^{o}$C the coke has more affinity for the oxygen atoms in the iron oxide) to form iron and carbon dioxide ($CO_2$) and lime reacts with impurities to form slag (SCI, 2003).

These materials react at high temperatures in the BF to produce molten iron with about 5-10% impurities, with the rest of the impurities floating on the surface as slag. The pig iron is continuously collected into ladles at the bottom of the BF, the majority of which finds its way

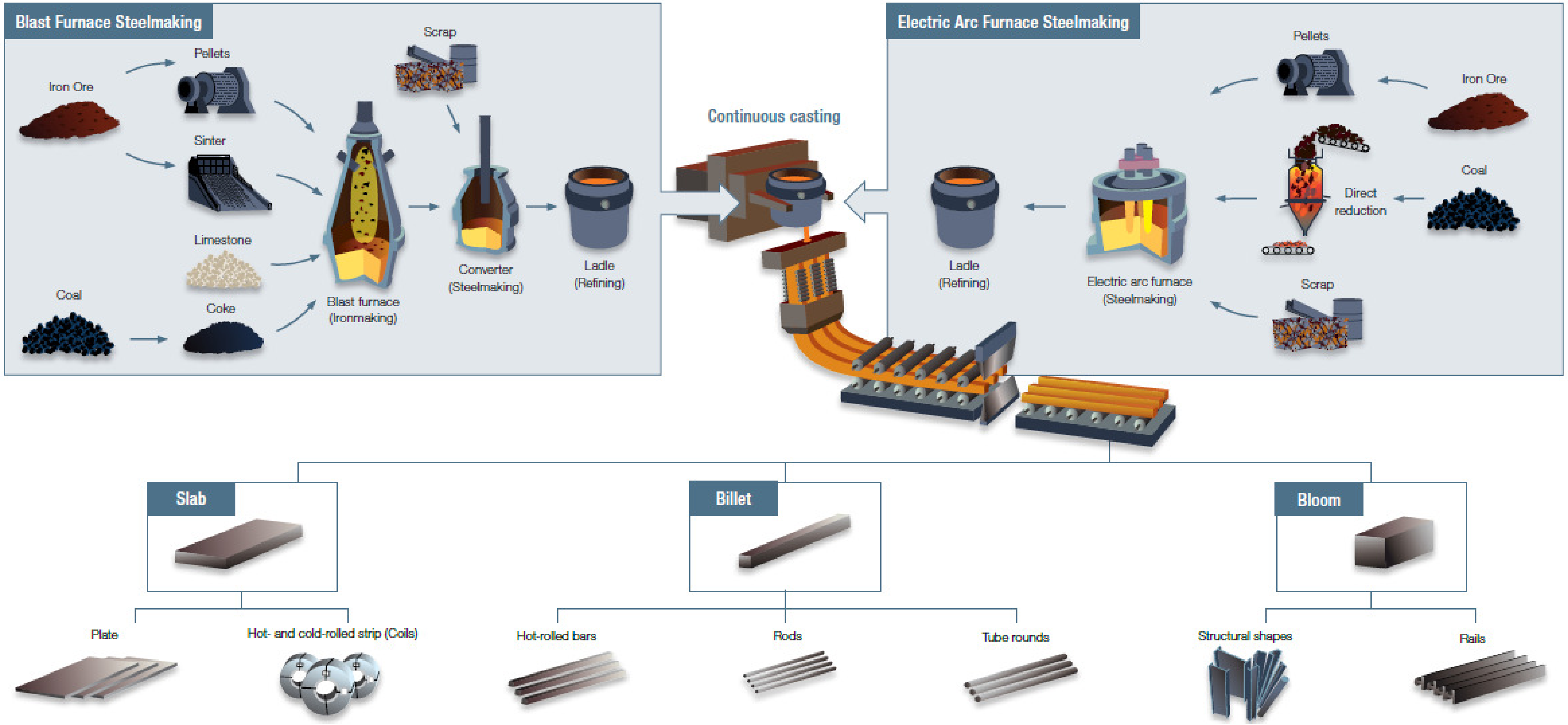



**Figure 5.2: steel production routes (Worldsteel, 2011c)**

into the BOF, which is the primary production route of steel from raw materials. However, a small amount of the molten iron is used in the EAF and OHF processes (Worldsteel, 2012b).

Slagging agents (limestone, dolomite and silica sand) are added to the blast furnace to facilitate the removal of impurities from the iron ore. The resulting elements are a mixture of aluminium, iron, magnesium and calcium oxides, which are lighter than iron and so they float above the liquid metal. These slags form the bulk of steel by-products and can be pelletised, air-cooled or granulated depending on how they are cooled. Air-cooled slag is used as aggregate whilst granulated slag is primarily used in cementitious material (SCI, 2003)

In the BOF, oxygen is blown through the molten iron thereby oxidizing the remaining carbon in an exothermic reaction and converting the alloy into low-carbon steel. The temperature in the BOF is controlled by the addition of recycled steel whose content is approximately 13% on average (Hammond and Jones, 2011). The refinement of the molten steel takes place in a separate ladle furnace.

EAF predominantly uses recycled steel, direct reduced iron (DRI involves the reduction of iron ore to iron in a rotary furnace heated up using natural gas or coal) and electricity. The recycled steel, together with the DRI or molten iron from the BF, are all fed in to the EAF. Electrodes, located above the metal surface, are lowered into surface to form a high temperature arc, with the metal acting as a conductor. Carbon, oxygen and other fossil fuels may be added into the furnace if the charge is not entirely recycled material, in order to facilitate the reduction reaction (SCI, 2003).

The liquid metal phase is the most energy-intensive process in steelmaking. On-going research on energy-saving initiatives for this phase is discussed later in Chapter 8 but, of the current production methods, the EAF is the most environmentally-friendly. This is because this method uses scrap steel as its dominant raw material, cutting out the amount of liquid iron required from the blast furnace or direct reduced iron routes. Nevertheless, steel products are durable and remain in existence for a long time with an average life of 32 years (Allwood and Cullen, 2012). Consequently, recycled material alone cannot meet the present demand for steel and hence the share of each production route is about 70% BF-BOF, 29% EAF and 1% OHF as shown in Figure 5.3 below (UK Steel, 2012).

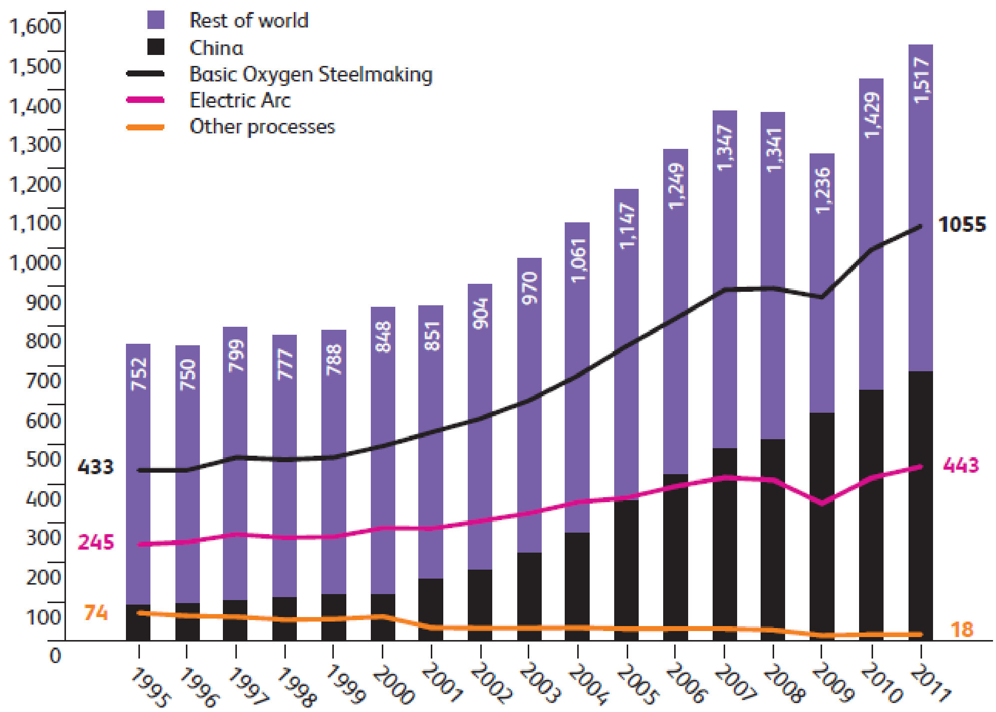



**Figure 5.3: World steel production in million tonnes (UK Steel, 2012)**

The downstream processes for the three methods are similar. Modern practice allows for continuous casting of the molten steel to form solid strands that are subsequently cut into slabs, billets and blooms. This method eliminates the heat treatments and initial rolling required by the traditional ingot process (Worldsteel, 2012b).

Casting involves the ingot production route. This is where the molten steel is cast into a mould and allowed to solidify before undergoing heat treatments by rolling to achieve the required properties. There is a small proportion of steel production, such as structural tubular sections and nodes, which still need this casting process to be followed (SCI, 2003).

In forging, blooms are heat-treated and formed before undergoing mechanical pressing until the desired shape is achieved. This involves specialised products such as rings for the reactor pressure vessel shell and is only a small fraction of the current production (Allwood and Cullen, 2012).

A significant amount of steel production involves rolling whereby steel is reheated to facilitate reshaping of the metal into desired profiles as it is passed through a series of mills with rolls. Strip and sheets are produced from slabs, rods and bars from billets and sections from blooms. Other processes such as cold-rolling and tempering can then follow if necessary. The stock products are then cut into the desired lengths, which can be supplied bare or subsequently coated with zinc (galvanized), tin, plastic or other organic coatings for corrosion protection (SCI, 2003).

BS 4-1 shows a standard range of rolled structural sections available in the UK. In 2011, the total UK supply to the home market was 1053kt of heavy sections, 1367 kt of tubes and 1756 kt of rods, bars and flats (UK Steel, 2012).

## *5.4 Chemical composition*

As outlined above, steel is a metal alloy and therefore does not have a chemical formula. Equation 1 below lists the majority of the constituent elements whose presence and amount depend on the required type and properties of steel, noting that some of these elements exist as impurities (SCI, 2003).

$$\text{Steel} \approx Fe+C+Mn+Si+S+P+Cr+Ni+Cu+V+Mo+Al+Nb+Sn+Sb+As+O+N \qquad \text{Equation 1}$$

Where Fe – iron, C – carbon, Mn – manganese, Si – silicon, S – sulphur, P – phosphorous, Cr – chromium, Ni – nickel, Cu – copper, V – vanadium, Mo – molybdenum, Al – aluminium, Nb – niobium, Sn – tin, Sb – antimony, As – arsenic, O – oxygen and N – nitrogen.

The iron – iron carbide diagram in Figure 5.4 below shows that steel contains up to 2.0% carbon by weight, above which it is considered to be cast iron. It is noteworthy that steel is a more pure form of iron than cast iron. Steel strength and hardenability (sensitivity to heat treatment) improves as the carbon content increases but ductility, which is the amount of movement that the material can undergo without breaking, reduces. Thus steel strength and ductility requirements conflict with each other. For structural steel, carbon content is kept low to maintain high ductility and weldability but traces of other elements are added to improve the rest of the mechanical properties including strength (Allwood and Cullen, 2012).

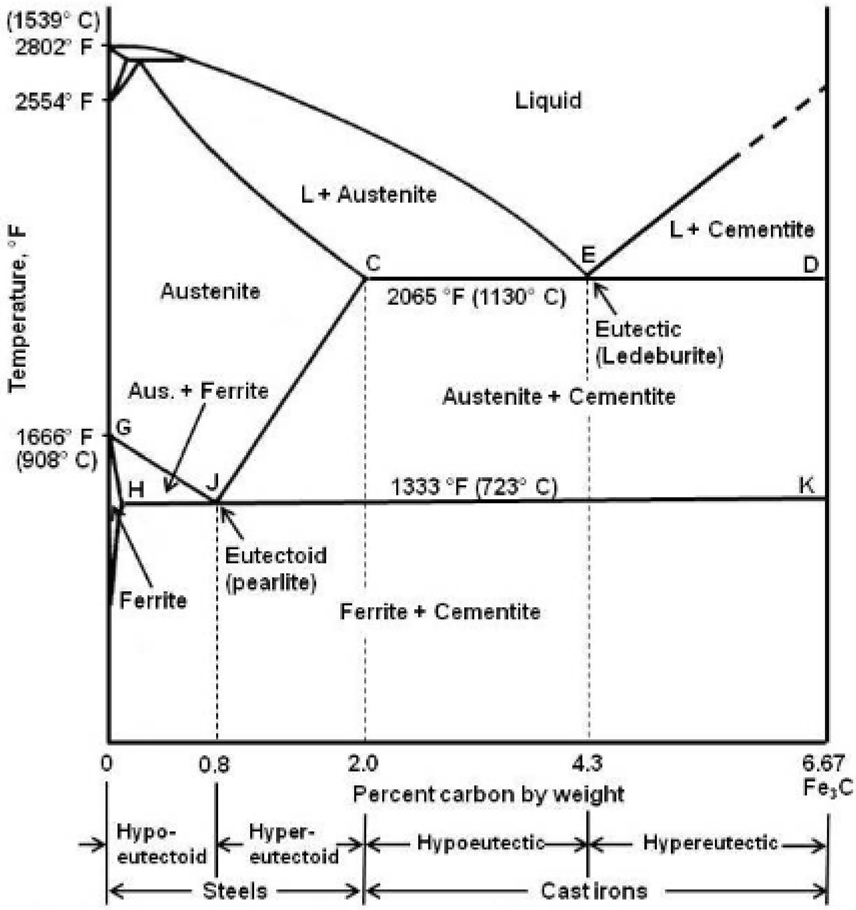



**Figure 5.4: The iron – iron carbine diagram (Shah, K.P., 2016)**

Basically, ductility is brought about by the movement of large dislocations in the steel to form microscopic deformations. Thus, multiplying and refining these dislocations (through heat treatment or the inclusion of other materials) hinder free movement thereby resulting in a stronger material.

The microstructure of steel is affected by manganese, chromium, molybdenum, nickel and copper. These elements perform the same purpose as carbon in increasing the strength of steel although to a lesser extent. Chromium, nickel and molybdenum have dual purposes as they are also used to improve corrosion resistance and hot strength. Indeed, the inclusion of nickel and chromium in large quantities results in stainless steel. Niobium, vanadium and aluminium are added in quantities of less than 0.05% by weight for nucleation which, when the steel is subjected to heat treatment, promotes grain refinement and hence increased strength (SCI, 2003).

Non-metallic inclusions need to be restricted to very small amounts and carefully controlled as they may be harmful to steel. Phosphorous and sulphur are residues from the iron ore and may cause brittle fractures and cracking of welded joints if they are allowed to remain in large quantities. For structural steel where welding is necessary, these impurities are reduced to quantities of less than 0.01% by weight. Arsenic, antimony and tin are other impurities that can cause temper embrittlement leading to poor fracture toughness. A high concentration of dissolved nitrogen and oxygen gases can lead to brittleness. The addition of aluminium and silicon reduces these gases to oxides, which can either remain in steel as solid non-metallic inclusion or removed as slag (SCI, 2003).

A range of compositions is given in PD 970 (2005), which includes steel grades that are still in regular use in UK but not covered by European Standards. Heat treatment and subsequent manufacturing processes have an impact on the mechanical properties of the resulting steel although some of the properties such as stiffness, conductivity and density are unaffected.

## *5.5 Heat treatment*

Heat treatment involves the cooling of the liquid steel at a prescribed rate from a peak temperature, thereby affecting the microstructure and properties of the solid steel. As described above, small amounts of additional elements cause the resulting steel to respond differently to heat treatment. This has the effect of increasing the steel strength while retaining good ductility, fracture toughness and weldability by keeping the carbon content low (SCI, 2003).

This process includes annealing (slow cooling of the metal in the furnace leading to coarse grained and softer final structure), normalising (natural cooling in air leading to fine grained and high yield strength material), controlled rolling (normalising combined with rolling and then cooled freely in air) and quenching (rapid cooling by immersion in water or oil bath). Tempering is a second stage heat treatment whereby previously hardened steel is softened and allowed to stabilise into a more ductile and tougher material. Heat treatment can be applied after fabrication to relieve residual stresses in regions such as welded joints (SCI, 2003).

## 5.6 Fabrication

In the construction industry, the stock products from the steel industry are converted into useful components through fabrication (or manufacturing). This fabrication process involves cutting, drilling, bending, forming, drawing, welding and painting resulting in steel components that are ready for assembly into buildings on site (Allwood and Cullen, 2012).

The basic processing requirements are cutting and drilling. Cutting can be in the form of sawing, shearing, cropping, machining, thermal nibbling or planing. For building structures, cutting is commonly done using guillotine shearing for thin sheets of up to 15mm thick. Cold saws, abrasive wheels and flame cutting, using an oxyacetylene torch, are employed for thicker sections. Laser cutting is used for thin but intricate forms. Drilling is done through numerical or computer controlled systems. For thinner materials, holes are punched through instead (SCI, 2003).

Welding involves the joining of two or more steel pieces through fusion. The temperature of the materials is raised to melting point to facilitate the fusion and a consumable electrode may be used as a filler material. The localised temperature gradient causes intense residual stress which can result in brittle fractures. The most common method used in the construction industry is arc welding, although other methods such as resistance, electron beam and laser welding exist (SCI, 2003).

Bending, forming and drawing are typically required for reinforcement bars or the cold-rolling of tubular sections from flat plates. Cold working can also result in increased strength in steel (Allwood and Cullen, 2012).

## 5.7 Engineering properties

BS EN 10025 provides the specification for weldable structural steels. Low carbon steel grades of S275 and S355 are commonly used in the UK building construction industry. Besides strength, structural engineers need to know the steel composition and a whole host of other mechanical properties. Furthermore, details of the steelmaking process are required as different heat treatments exist for each production route. Table 5.1 below shows a variety of steel properties and typical uses.

Table 5.1: Steel properties and typical uses (Allwood and Cullen, 2012)

| Alloy group | | Composition | Processing | Typical properties | Examples of application |
|---|---|---|---|---|---|
| Carbon steels | Low-carbon | <0.25wt%C | Hot rolled and allowed to cool in air | Low to medium strength and moderate ductility | Structural beams for buildings, plates |
| | Med-carbon | <0.25-0.5wt%C | Heat treatment through quenching and tempering | High strength and moderate toughness | Forgings |
| | High-carbon | <0.5-1.0wt%C | Heat treatment through quenching and tempering | Very high strength | Rail, wire |
| | Cast-iron | >2.0wt%C | Cast to shape directly, possibly with heat treatment | Low strength and ductility | Large equipment and transport parts |
| Alloy steels | High strength low alloy (HSLA) | <0.25wt%C plus Nb, Ti, V | Hot rolling with controlled temperature | Higher strength than plain carbon steels through grain refinement | Line pipe |
| | Stainless | >12wt%C plus Ni | Hot and cold worked | Corrosion resistance | Food handling equipment |
| | Tool | >5wt%C with combination of Mn, Cr, V, W, Mo | Hardened through heat treatments of surface or entire part | High strength and toughness | Machining tools, dies |
| | Interstitial free (IP) | Very low C and N content | Vacuum degassing and casting control to avoid carbon, nitrogen and oxygen pickup | Very high ductility and formability, low strength | Outer automotive panels |
| | Dual phase (DP) | <0.25wt%C plus Mn, Si, V | Heat treatment through intercritical annealing and controlled cooling | Low yield strength and similar tensile strength to HSLA steels with increased ductility | Automotive sheet |
| | Transformation induced plasticity (TRIP) | <0.25wt%C plus Si, Mn | Heat treatment through intercritical annealing and holding temperature | Higher ductility than DP steels at high strengths | Automotive sheet |

The chemical composition is tested on a sample of the liquid steel taken before it is tapped into a mould. The results will appear on the test certificate of all products made from the same batch, with the products themselves stamped with reference markings. The steel grade and quality of each component that makes up the completed building should be identified through fabrication and clearly linked to the corresponding test certificate. The test certificate includes the composition of the five basic materials, C, Mn, Si, S and P but may also include Cr, Ni, Cu, V, Mo and Al where applicable. The chromium and nickel weight content is provided for stainless and low-alloy steels (SCI, 2003).

The results of a tensile test, which include yield strength and elongation, are routinely included on the test certificate. Charpy (V-notch impact) test results are also provided when fracture toughness is considered necessary. However, Charpy and other additional chemical analysis tests incur extra costs as these cause disruptions to the normal steel production process (SCI, 2003).

Defects that develop during the steelmaking stage include shrinkage cracks and the inclusion of gaseous and solid impurities in steel. Additionally, surface imperfections and cold laps can appear in rolled products. These imperfections are taken into consideration in structural design codes by, inter alia, limiting the permissible compression stresses of slender sections (Allwood and Cullen, 2012).

Essentially, the steelwork used in building construction largely falls into the first row of Table 5.1 above, which is low-carbon steel with less than 0.25% carbon by weight. This classifies the steel considered in this research as low to medium strength with moderate ductility.

# 6 Steel production and distribution

This section looks at the quantity and distribution of current steel production, steel producing countries and companies, as well as the amounts consumed by the construction industry.

## 6.1 Production

Tables 6.1 to 6.3 below have been developed or extracted from the 2012 edition of *World Steel in Figures* (Worldsteel, 2012c), which provides comprehensive statistics on the steel industry including production, use and trade. There are other sources such as UK Steel that focus on national figures but these ultimately draw upon the information from Worldsteel when it comes to global productions.

**Table 6.1: Crude Steel production 2011 by Continent (data from Worldsteel, 2012c)**

| Continent | Steel Production (Million Tonnes) | Percentage | Comment |
|---|---|---|---|
| Europe | 215.1 | 14.2% | 177.2 in EU (27) [82.4% of Europe]* |
| C.I.S** | 113.5 | 7.5% | 68.9 in Russia [60.7% of CIS] and 35.3 in Ukraine [31.1% of CIS] [Together =91.8% of CIS] |
| North America | 117.5 | 7.7% | 86.4 in United States [73.5% of North America] |
| South America | 49.3 | 3.2% | 35.2 in Brazil [71.4% of South America] |
| Africa | 15.6 | 1.0% | 7.5 in RSA [48.1% of Africa] and 6.5 in Egypt [41.7% of Africa][Together = 89.8% of Africa] |
| Middle East | 20.8 | 1.4% | 13.2 in Iran [63.5% of Middle East] and 5.3 in Saudi Arabia[25.5 of Middle East][Together = 89.0% of Middle East] |
| Asia | 974.9 | 64.2% | 683.9 in China [70.2% of Asia], 107.6 in Japan[11.0% of Asia], 71.3 in India [7.3% of Asia] and 68.5 in South Korea[7.0% of Asia][Together = 95.5% of Asia] |
| Oceania | 7.2 | 0.5% | 6.4 in Australia [88.9% of Oceania] and 0.8 in New Zealand[11.1% of Oceania][Together = 100% of Oceania] |
| Total World Steel | 1517.9 | 100% | China produce 45.1% of the world's steel |
| * EU (27) = the main 27 countries that make up the European Union<br>**CIS = Commonwealth of Independent States (former Soviet Republic) | | | |

China's steel production, which makes up nearly half of 2011 global steel production of 1518Mt, is about seven times more than its nearest rival and 72 times that of the UK as shown in Table 6.2 below.

**Table 6.2: Major steel-producing countries (Worldsteel, 2012c)**

| Index | 2011 | |
|---|---|---|
| | Country | Amount of steel product (Million Tonnes) |
| 1. | China | 683.9 |
| 2. | Japan | 107.6 |
| 3. | United States | 86.4 |
| 4. | India | 71.3 |
| 5. | Russia | 68.9 |
| 18. | United Kingdom | 9.5 |

The major steel producing companies include ArcelorMittal and Hebei Group as shown in Table 6.3 below.

**Table 6.3: Top steel-producing companies (Worldsteel, 2012c)**

| Index | 2011 | |
|---|---|---|
| | Country | Amount of steel production (Million Tonnes) |
| 1. | ArcelorMittal | 97.2 |
| 2. | Hebei Group | 44.4 |
| 3. | Baosteel Group | 43.3 |
| 4. | POSCO | 39.1 |
| 5. | Wuhan Group | 37.7 |

It is curious that ArcelorMittal only accounts for 6% of the global production and this is more than double that of the second largest producer. This implies that the smaller steel mills still present healthy competition to the major producers, although the latter are likely to use their buying power to get better access to good quality raw materials. On the contrary, the mining industry is much more consolidated with the top three companies, BHP Billiton, Vale and Rio Tinto, accounting for more than a quarter of the global market. Downstream of the steelmaking industry, the construction market is predominantly served by many small companies (Allwood and Cullen, 2012).

## 6.2 Use and distribution

About a quarter of the 7 billion world population has inadequate housing with nearly 100 million homeless. World population is set to grow at 1.18% annually to 9.7 billion by 2050 (UNDESA, 2015) with more than 50% predicted to be living in cities. The steel industry makes a major contribution to the building sector, which currently accounts for 20% of global emissions (Mertz, 2010).

According to Worldsteel (2012b), there is a link between steel and economic growth. Figure 6.1 below shows the relationship between steel stock and Gross Domestic Product (GDP) for a selection of developed countries. This suggests that personal steel stock increases as the wealth of an individual increases.

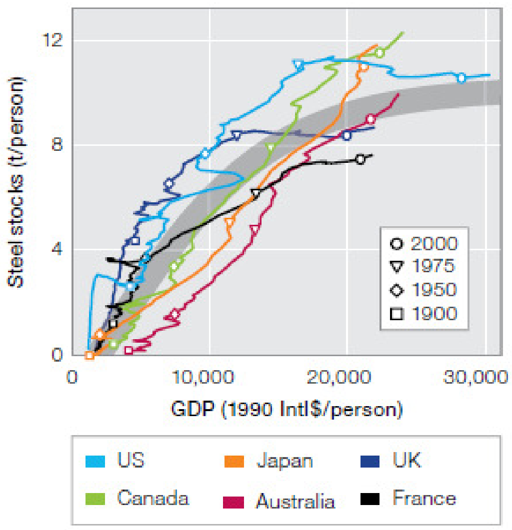



Figure 6.1: steel stock in-use versus GDP of different countries (Worldsteel, 2012b)

In developed countries, individual steel stocks have stabilized at a plateau ranging from 8 to 12t/person and any further increase is likely to be small. This is because, in these countries, people are replacing rather than buying new steel stock. The UK has a stable steel stock of approximately 10t/person, with an annual replacement rate of 0.4t/person (Allwood and Cullen, 2012).

As shown in Figure 6.2 below, steel stocks are posed to increase exponentially in developing countries such as China and India, whose figures are currently approximately 2t/person

(Muller et al., 2011). This rise in demand will lead to an increase in the total national production figures.

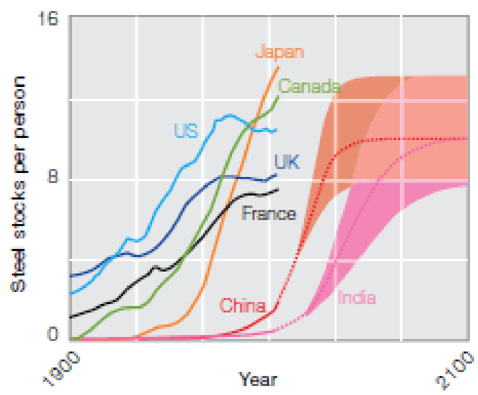



**Figure 6.2: Predicted steel consumption per capita (Worldsteel, 2012b)**

Mainland Europe still prefers concrete frames for its multi-storey buildings whilst Japan prefers flexible steel frames in this earthquake-infested region. Construction steel consumption therefore varies from approximately 3t/person in France to 9t/person in Japan with the UK, which also prefers steel-framed high-rise buildings, being about 4t/person (Allwood and Cullen, 2012).

The average global steel use per capita is 218kg, which is the total steel production in 2011 divided by a world population of around 7 billion (Worldsteel, 2012a). Table 6.4 below shows the apparent steel use per capita figures for the top five countries. The UK per capita consumption figure, which is below the world average, is also included for comparison purposes.

**Table 6.4: Countries with the highest apparent steel use per capita (Worldsteel, 2012a)**

| Index | 2011 | |
|---|---|---|
| | Country | Apparent steel use per capita (kilograms) |
| 1. | South Korea | 1,156.6 |
| 2. | Taiwan, China | 784.4 |
| 3. | Czech Republic | 595.7 |
| 4. | Japan | 506.7 |
| 5. | Germany | 479.6 |
| - | United Kingdom | 148.6 |

The UK (apparent steel) consumption shown in the table above is one of the lowest in Europe because the calculations are based on national production rather than consumption levels. Having outsourced the majority of its steel production to China and other developing countries, the UK now only produces less than 10Mt (UK Steel, 2012). However, the UK imports a significant amount of steel stock and products. After all the parameters (internal production, imports, exports and wastage) are considered, Allwood and Cullen (2012) estimate that ultimate UK consumption is around 28Mt, which pushes the per capita use up to 450kg. Clearly, the UK consumption, and hence carbon emissions, is grossly underestimated in the table above. On the other hand, the actual consumption figure for South Korea is significantly lower than that shown in the table above owing to its high export volumes of cars, ships and other steel-containing goods.

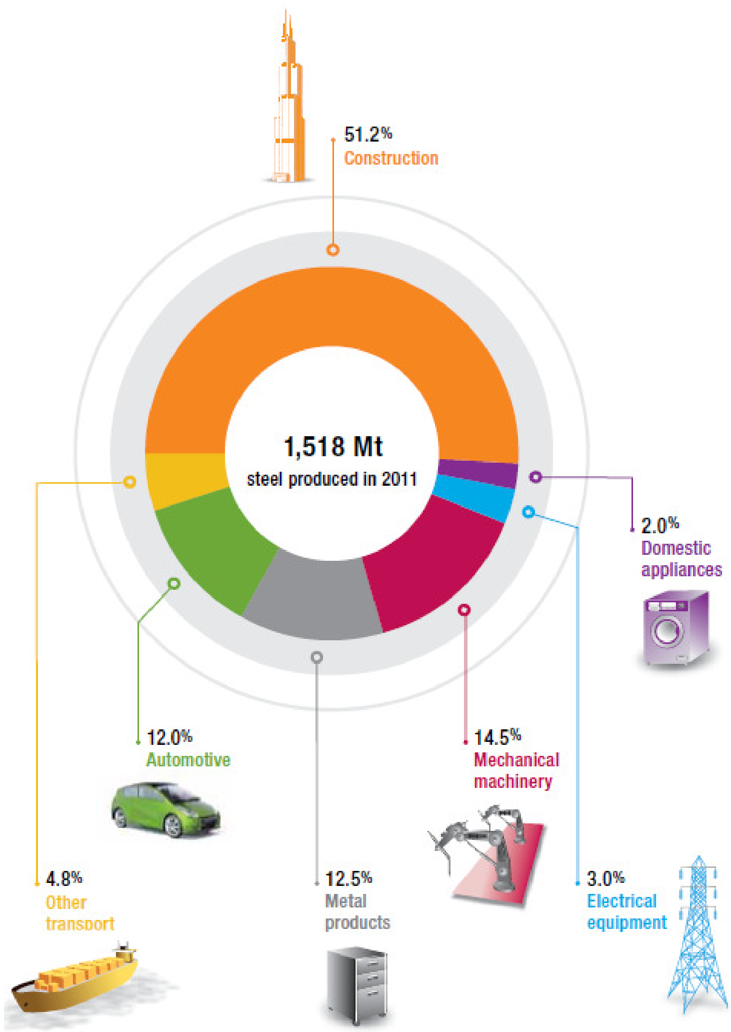



Figure 6.3: Steel production 2011 (Worldsteel, 2012b)

Figure 6.3 above shows that steel use can be categorised into the four main groups of: construction; transport; industrial equipment; and consumer goods. Consumer goods include domestic and office items such as cabinets, washing machines and cans for tinned foods which take up 14.5% of global steel production. The transport sector consumes 16.8% of global steel and is dominated by vehicles and ships, with trains and planes consuming only a smaller proportion. Industrial equipment accounts for 17.5% of global output and this includes paper mills, sewing machines as well as construction equipment such as cranes, drills and bulldozers (Worldsteel, 2012b).

The remaining 51.2% of global steel production is consumed by the construction sector as indicated in Figure 6.3 above. Indeed, Allwood and Cullen (2012) estimate this construction sector consumption to be slightly higher at 56%. For buildings, steel use includes structural sections, reinforcement bars and steel sheet products. The breakdown of the construction portion (56%) is summarised in Table 6.5 below.

**Table 6.5: Percentage breakdown of steel usage in the construction sector (Allwood and Cullen, 2012)**

| Construction Sector | Percentage Usage (%) | Comment |
|---|---|---|
| **Buildings** | 42 | 25% is structural sections; 44% is reinforcement bars; 31% is sheets products (e.g. cladding, purlins). |
| **Infrastructure** | 14 | 24% is structural sections; 54% is reinforcement bars; 6% is train rails; 16% in pipes. |
| Steel for structures such as electricity towers and cranes is in addition the above figures. | | |

Stadiums, bridges, tunnels, ports, stations as well as commercial, industrial and residential buildings, all use steel in the form of reinforcement bars and structural frames. As shown in Table 6.5 above, the largest proportion of steel in the construction sector is used for reinforcement bars in concrete construction. Countries such as Japan and the UK have a large proportion of their multi-storey buildings utilising steel frames. The remainder of the steel used in buildings is for façade and roof cladding, including supporting rails. In infrastructure, a small fraction of steel output is used for rail tracks and pipes for the distribution of utilities such as water and gas (Allwood and Cullen, 2012). Table 6.6 below shows an approximate percentage breakdown of steel usage for buildings and infrastructure.

Table 6.6: Percentage breakdown of steel usage for buildings and infrastructure (Allwood and Cullen, 2012)

| Steel construction | | Proportion of the construction sector (%) | Breakdown (%) | | | |
|---|---|---|---|---|---|---|
| | | | Reinforcement bars | Structural sections | Cladding | Pipeline |
| Buildings | Commercial | 22 | 40 | 30 | 30 | |
| | Industrial | 25 | 5 | 40 | 55 | |
| | Residential | 16 | 90 | | | |
| | Other (Schools, hospitals, stadiums) | 12 | 40* | 30* | 30* | |
| Infrastructure | Road and rail | 18 | 60 | 40 | | |
| | Utilities | 7 | | | | 100 |
| Total | | 100 | | | | |
| *Estimated by the researcher that this group consumes the same proportion as commercial buildings | | | | | | |

The focus of this research is the building superstructure, which uses structural steel sections for its frame. A steel-framed building primarily comprises steel beams (horizontal) and columns (vertical) sections as shown in Figure 6.4 below.

Figure 6.4: Steel frame for a 3-storey building

Indeed there will be secondary steelwork, not shown in Figure 6.4, for other purposes such as roof purlins, cladding rails and opening trimmers. In UK, floors typically consist of in-situ concrete on metal decking or precast concrete panels, although other floor types such as in-situ concrete on its own or timber exist. Shallow or deep foundations, normally of concrete construction, are required and will depend on the ground conditions and building size.

According to Worldsteel (2015), the structural sections make up 21.8% of the total 2011 production, which translate to 331 Mt (1518 x 21.8%) of steel. Thus, knowing the amount of GHG emissions produced per tonne of steel, the total amount of embodied carbon can be calculated. Prior to looking at the contribution of steel to GHG emissions, the following Chapter 7 reviews the assessment methods currently available in the industry that include LCA and LCI studies.

# 7 Life Cycle Assessment

As a result of the demand for low carbon buildings from private clients and governments (CGL, 2008), there are a number of different approaches and modelling tools that deal with carbon and energy assessments in the construction industry. These range from Life Cycle Assessment (LCA), Life Cycle Impact Assessment (LCIA), Environmental Product Declarations (EPD), Inputs-Outputs (IO) and simple carbon footprint toolkits that are developed by individual companies (CPA, 2012).

This chapter looks at the approach taken by these various methods before looking at the particular LCI and BCSA tool used in this research.

## *7.1 Definition and approach*

LCA is a tool used to evaluate the potential impacts on climate change and natural resources from all stages of a product's life (Reap et al., 2008). This is a rigorous technique used to compare different approaches of achieving the same product or for finding average data from a number of producers. The environmental impact of every process within a set boundary is examined, resulting in numerical values that can be summed and compared. According to CPA (2012), most LCA results are being manipulated to represent absolute figures instead of providing comparisons between products.

Commercially available LCA software includes GaBi (2011) and SimaPro (2011). For the steel industry, the Worldsteel (2011b) LCA methodology was launched in 1995 and is based on the BS EN ISO 14040 standards. In addition to providing a common methodology for the measurement and collection of cradle-to gate environmental data, member companies can now compare energy performance, resource usage and GHG emissions leading to improvements in eco-efficiency of the whole industry. Administered and promoted by the Worldsteel LCA Expert Group, this data is being used in the majority of LCA studies worldwide, thereby enabling the identification of merits and demerits of using steel on an individual project basis.

Life cycle inventory (LCI) is a compilation of resources and their GHG emissions. This database is the basis of LCA studies (i.e. each LCA will have an LCI behind it), but it can also be assessed separately to produce an indicator known as an LCIA. The data from LCI cannot be used on its own and needs LCA and LCIA tools to quantify the materials used and to harmonise the boundary systems and assumptions (CPA, 2012).

Approved standards need to be complied with if the methods and data collected for the LCA are to be credible. The international standards BS EN ISO 14040, BS EN ISO 14044 and the associated technical report PD ISO/TR 14049 have been influential in this regard. However, these standards are non-prescriptive as they define an acceptable methodology rather than methods. This has given rise to a variety of methods being applied in the industry making it difficult to compare studies.

Some of the more prescriptive methods that have been developed include the Carbon Trust PAS 2050 carbon label methodology (BIP 2181, 2011) and the BRE methodology for environmental profiles (BRE, 2011). A carbon footprint is the sum of all the carbon emissions associated with a product and this single figure approach is what has been adopted for PAS 2050. The Carbon Trust has defined its own method as a consequence of the lack of an industry-wide strategy.

The BRE uses the principle of EPD, which is another way of expressing LCA data based on common Product Category Rules (PCR) and life cycle stages (BS EN ISO 14025; BS EN 15804). These EPD's have been compiled into environmental profiles that form the basis of the BRE *Green Guide to Specification* (BRE, 2012). BREEAM and the Code for Sustainable Homes are two building level environmental rating schemes that are based on this specification.

Concerned with the trade barriers that national EPD schemes were potentially creating, the European Union (EU) commissioned the European Committee for Standardisation (CEN) through its technical committee (TC) to develop a harmonised set of standards. The product of this work is a series of standards on the sustainability of construction works referred to as CEN/TC 350 (BS EN 15643-1; BS EN 15643-2; BS EN 15978). These standards form EU Directives, which member countries are legally required to follow without the need to change their national laws (CPA, 2012). In essence, methods such as PAS 2050 and BREEAM cannot be used in the UK if they conflict with the CEN/TC 350 standards.

The IO methodology, adapted from Wassily Leontieff's 1936 invention, involves the allocation of emissions to monetary flows, which are traced from the beginning of production until final demand (Allwood and Cullen, 2012). It is a logical but not easily understood approach, particularly in the assignment of emissions to money flows. A huge amount of data is also required, which may not necessarily exist, and the results are for the whole sector rather than for an individual product.

The Building Information Modelling (BIM) initiative has developed tools to support every phase of a project from inception until end-of-life (Autodesk, 2012). The structural analysis and design models are linked seamlessly to the material take-off and 3D visualization tools enabling environmental impacts to be accurately predicted before the structure is built. It combines the embodied carbon assessments with building design and cost reviews in a workflow that enables alternative schemes to be explored at the onset of a project or during its lifecycle (BIM-IWG, 2011). This facilitates informed decisions to be taken in pursuance of low carbon footprint and efficient use of materials in buildings. BREEAM may eventually be integrated with BIM (Oti and Tizani, 2015) but currently the challenge is to find a systematic way of incorporating the sustainability ratings from methods such as BREEAM at design inception stage.

## *7.2 Life cycle inventory (LCI)*

A significant amount of environmental data is already available in LCI databases such as the BRE *Green Guide to Specification* (BRE, 2012) and the *Embodied Carbon: The Inventory of Carbon & Energy (ICE)* (Hammond and Jones, 2011), and some is hidden behind commercially guarded LCA software such as GaBi (2011) and SimaPro (2011). These existing LCA tools adopt different approaches, meaning that comparison is practically impossible without further processing of outcomes from the individual methods.

For instance, there are different allocation methods that can be applied to recycled materials. The PAS 2050 methodology allocates 100% benefit to the user of the recycled material, known as the recycled content or 100:0 approach. The new CEN/TC 350 standards allocate 100% of the benefit to the producer of the recycled material, a method known as the substitution or 0:100 method. In some circles, this method is also referred to as the recyclability or closed loop system expansion method (Worldsteel, 2011b). Considering both these methods at the same time would constitute double counting, and Hammond and Jones (2011) propose a share of the benefit between the producer and user of the recycled material in what is referred to as the 50:50 method. This appears to be a sensible trade-off as the two parties have a mutual relationship since both the producer and the user are required for the benefit to exist.

To add to the complexity, LCI data can be available with different boundary conditions which include cradle-to-grave, cradle-to-site and cradle-to-gate (Hammond and Jones, 2011). Whenever a boundary case other than cradle-to-grave is considered, sensitivity analysis should be carried out to evaluate the influence of the remaining phases of the product life in order to enable the comparison of studies.

Emissions from materials such as steel are front-loaded and will not appeal to users if only earlier stages of the material cycle are considered. The downstream processes in steel produce very little emissions in comparison with other construction materials. Regardless of the boundary case considered or the method employed, the cradle-to-gate, operation and end-of-life stages should be reported separately for transparency and improved accuracy (Tata Steel & BCSA, 2012).

The ICE (Hammonds and Jones, 2011) data has been used in this research as it is an open and referenced source without confidentiality issues presented by commercial LCA packages. This database includes over 1800 records of 34 classes of material used in the construction industry. It was developed by the University of Bath in UK and published by BSRIA (Building Services Research and Information Association). One of the authors has been an advisor to the UK Department of Energy and Climate Change. The database is extensively referenced in the construction industry.

The data in Table 7.1 below has been derived from the ICE database and compares the embodied energy and carbon for four of the commonly used materials in construction, namely masonry, steel, concrete and timber.

**Table 7.1: EE and EC of the four main structural materials (Hammond and Jones, 2011)**

| Material | Embodied Energy and Carbon Coefficients | | | Comment |
|---|---|---|---|---|
| | EE (MJ/kg) | EC ($kgCO_2/kg$) | GHG ($kgCO_{2e}/kg$) | |
| **Block** (8MPa) | 0.59 | 0.059 | 0.063 | |
| **Brick** | 3.00 | 0.23 | 0.24 | |
| **Concrete** (32/40MPa) | 0.88 | 0.123 | 0.132 | Unreinforced |
| **Concrete** (32/40MPa with 50% GGBS) | 0.78 | 0.094 | 0.100 | Unreinforced |
| **Concrete** (32/40MPa with 150kg/$m^3$ rebar) | 0.88+1.04x1.5 = 2.44 | 0.123+0.072x1.5 = 0.231 | 0.132+0.077x1.5 = 0.248 | Reinforced |
| **Precast Concrete** (32/40MPa with 80% rebar) | 0.88+0.45+1.04x0.8 = 2.162 | 0.123+0.027+0.072 x0.8 = 0.208 | 0.132+0.029+0.077 x0.8 = 0.223 | Reinforced |
| **Steel** | 20.10 | 1.37 | 1.46 | 59% recycled content |
| **Timber** * | 10.00 | 0.30fos+0.41bio | 0.31fos+0.41bio | No calorific value or carbon storage |

*Off-cuts of timber from sustainably managed forests, which are burnt as energy in the furnace during manufacture, provides biomass fuel that can significantly reduce the embodied carbon emissions. For instance, the table shows that the timber EC figure is 0.41 $kgCO_{2e}/kg$ if biomass (bio) fuel is used and 0.72 $kgCO_{2e}/kg$ (=0.31+0.41) if fossil (fos) fuel is used.

The figures in the above table are for the cradle-to-gate boundary case. While the embodied energy (EE) coefficient of steel shown above is 23 times that of plain concrete, the corresponding embodied carbon (EC) coefficient is only 11 fold due to variations in fuel mixes. The ratio reduces further to 6:1 when the EC of steel is compared to that of reinforced concrete. Note that GGBS, a by-product of steel, can be used to reduce the EC of concrete. For UK fuel use only, it is estimated that the GHG ($CO_{2e}$) emission is 6% higher than its EC ($CO_2$) value (Hammond and Jones, 2011).

It is clear from the figures above that, for the boundary case considered, steel is a carbon-intensive material compared to other construction materials. However, these coefficients cannot be used in isolation to decide on the most sustainable material because functional requirements as well as the economic and social impacts need consideration. Furthermore, other factors such as durability (impacts on maintenance requirements), material density (affecting the quantity of material used) and disposal (re-use, recycling and waste requirements) will need to be taken into account. For instance, although the EC coefficient of concrete is low, the total weight of material required to produce a building that has the same structural function as an equivalent steel frame will be higher.

## *7.3 BCSA Carbon Footprint Tool*

The quantitative data collected during the case study is included in Appendices 1 to 3. This disaggregated data has been processed using the BCSA Carbon Footprint Tool v3 to establish the aggregated carbon emission of the steelwork under study. The footprint tool is based on PAS 2050 (2008) and Defra (2010) guidelines, the latter being consistent with the Greenhouse Gas Protocol (WBCSD and WRI, 2004).

BCSA is a UK national organisation whose primary objective is to promote the use of structural steelwork in the construction industry. Its members include the steelwork contractors involved in the design, fabrication and erection of steelwork; suppliers of material and; professionals involved in the specification, certification and erection techniques. The Carbon Footprint tool is one of the professional services that the body provides to its members, which includes all UK steel contractors. The tool has been developed by the Steel Construction Institute (SCI), a leading and independent UK provider of technical expertise to the steel construction industry.

The tool has been designed to calculate the carbon footprint produced by a steelwork contractor through its manufacturing and business operations. The manufacturing aspect covers emissions resulting from the manufacture, transportation and erection of the steelwork whereas the business aspect covers all other day-to-day activities of the company including administration and design. These two emissions are then combined to come up with the overall company footprint.

Alternatively, the tool can just be utilised to calculate the carbon footprint of steel manufacture and erection of a particular project. The BCSA Carbon Footprint Tool was utilised for this second purpose and, as no specific company data was collected as part of this research, the simplified approach was followed.

Whilst the case study was limited to the fabrication, transportation to site and erection phases of the steelwork, the footprint tool considers all the other upstream phases. The boundary condition for the footprint tool is therefore cradle to end-of-erection on site. Furthermore, the benefits of recycling at the end of life have been factored into footprint tool using the Worldsteel (2011b) system expansion method.

Owing to the dominance of carbon dioxide in GHG emissions and the lack of available data in many of the other anthropogenic gases, the tool relies on the available $CO_2$ data. The tool considers all the three scopes of GHG emissions as defined by the Greenhouse Gas Protocol: Scope 1 (emissions from sources owned or controlled by the Subcontractor); Scope 2 (indirect GHG emissions from the generation of purchased electricity consumed by the Subcontractor) and; Scope 3 (other indirect emissions that result from the activities of the Subcontractor, although not under its control). The following sections describe how each phase of the steelwork, which happened to be all hot-rolled, was considered in the carbon footprint tool.

### 7.3.1 Production

The case study only recorded the quantities of the fabricated steelwork. Therefore for the incoming steel intermediate products for the factory, a 7% increase has been applied to the finished product to cater for wastage (6.8%) and temporary steelwork (0.2%) as described in Sections 8.4 and 10.3 respectively. The emission factors shown in Table 7.2 were then applied to these quantities to obtain the production carbon impact. As mentioned above, a sensitivity analysis has been carried out for the recyclability of steel using the Worldsteel (2011b) system expansion method and the impact is already included in these emission factors.

**Table 7.2: Emission factors for steel production including end-of life recycling (SCI, 2011)**

| Steel Element | Emission Factor (kg$CO_{2e}$/kg) | Comment |
|---|---|---|
| Plate | 0.97 | |
| Tubes | 0.92 | Assumed to include square and rectangular hollow sections |
| Sections | 0.79 | |
| Angles and Channels | 0.79 | |

### 7.3.2 Transportation to manufacturer

The same steel quantities as in Section 7.3.1 above were considered in this section. The type of vehicle, weight laden and distance travelled from the supplier to the factory was not studied in this research and so default information was used for the tool:

- Distance travelled - 250km
- Type of vehicle - articulated truck
- Weight laden – 50%
- Return trip – empty

The total transport emissions factors shown in the Table 7.3 below are made up of direct (from combustion during delivery) and indirect (from production of the fuel) portions, as derived from Defra (2010).

**Table 7.3: Articulated diesel freight transport emission factors (SCI, 2011)**

| Weight laden | $kgCO_{2e}$ per vehicle km | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| 0% | 0.709 | 0.136 | 0.845 |
| 50% | 0.942 | 0.181 | 1.123 |
| 60% | 0.988 | 0.190 | 1.178 |

### 7.3.3 Manufacture

The quantities of incoming steel intermediate products described in Section 7.3.1 above were used to work out the carbon emission for this phase. Wastage is worked out as the difference in quantities between the fabricated and incoming products.

The energy required by the contractor to manufacture this steelwork was not studied in this research and consequently, an estimated value of 2.55 kWh/kg of fabricated steel was used as discussed in Section 8.4.

### 7.3.4 Transport to site

From the data in Appendix 3, it was estimated that trucks loads were generally between 50% to 100% weight laden, considering that the articulated diesel freight used for the transportation of all the steelwork to site had a net capacity of 33 tonnes. From the study carried out in Chapter 10, approximately 1505 Mt of steelwork from Romania was delivered to site in 73 truckloads. This works out to an average truck load of about 19.5Mt, roughly 60% weight laden. The return trips were considered to be totally empty, meaning 0% weight laden. The applicable emission factors are also shown in Table 7.3 above. The actual quantities of finished components recorded during the study were used in this calculation.

### 7.3.5 Erection

Due to all the variables that are linked to each particular site, the accuracy of average emission data that is available in the industry and can be applied to the erection phase is very low. The following information, derived from Appendix 1, has been entered into the BCSA footprint tool for the erection of the 4747 tonnes of Assembly Hall steelwork:

- Cranes – three mobile cranes that spent 54, 35 and 18 weeks on site each, giving a total of 107 weeks;
- MEWP – eight Mobile Elevated Working Platforms (MEWP) that spent 54, 48, 27, 18, 18, 14, 4 and 4 weeks on site each, giving a total of 187 weeks;
- Forklifts – five forklifts that spent 18, 18, 18, 9 and 9 weeks on site each, giving a total of 72 weeks.

## *7.4 Summary*

This section looked at the different approaches and tools that are used to assess carbon footprint in the industry, which include LCA, LCI and carbon footprint tools. The aggregated embodied carbon coefficients for the four most common structural materials (brick/block, concrete, steel and timber) were established from the ICE. A closer look at the BCSA Carbon Footprint tool was then taken, including the manner that the disaggregated data from the case study will be entered into this footprint tool.

It has been established above that direct comparison of results from carbon footprint tools is difficult due to the adoption of different approaches and boundary cases, even when the background data is coming from the same source. The following chapter will now cover the embodied carbon of steel in more detail.

# 8 Embodied carbon of steel

On one hand, the production and use of steel contribute to the global environmental challenges of climate change and depleting natural resources (Ayres, 1997). Furthermore, the world population is increasing year on year resulting in more urbanisation, which in turn increases steel demand, GHG emissions and environmental degradation. On the other hand, steel contributes to a sustainable society through the provision of employment and adequate housing. At present, the steel industry directly or indirectly employs over 2 million people worldwide (Worldsteel, 2012b).

Can the "the best of both worlds" of minimising emissions and maximising benefits be achieved? Of course, no one can predict the future with total accuracy, but understanding past and current patterns through constant review of steel production and use helps to reliably estimate future demand and emissions.

**Table 8.1: EE and EC of steel and its constituent elements and by-products (Hammond and Jones, 2011)**

| Material | Embodied Energy and Carbon Coefficients | | |
|---|---|---|---|
| | EE (MJ/kg) | EC ($kgCO_2$/kg) | GHG ($kgCO_{2e}$/kg) |
| Iron | 25.00 | 1.91 | 2.03 |
| Chromium | 83 | 5.39 | - |
| Manganese | 52 | 3.50 | - |
| Nickel | 164 | 12.40 | - |
| Silicon | 2355 | - | - |
| Vanadium | 3710 | 228 | - |
| Slag (GGBS) | 1.60 | 0.083 | - |
| Molybdenum | 378 | 30.30 | - |
| Steel general UK | 20.10 | 1.37 | 1.46 |
| Virgin | 35.40 | 2.71 | 2.89 |
| Recycled | 9.40 | 0.44 | 0.47 |
| Bar and Rod | 17.40 | 1.31 | 1.40 |
| Virgin | 29.2 | 2.59 | 2.77 |
| Recycled | 8.8 | 0.42 | 0.45 |
| Sections – UK (EU) | 21.5 | 1.42 | 1.53 |
| Virgin | 38.00 | 2.82 | 3.03 |
| Recycled | 10 | 0.44 | 0.47 |
| Plate- UK (EU) | 25.1 | 1.55 | 1.66 |
| Virgin | 45.4 | 3.05 | 3.27 |
| Aluminium - General | 155 | 8.24 | 9.16 |
| Virgin | 218 | 11.46 | 12.79 |
| Recycled | 29.0 | 1.69 | 1.81 |
| Tin | 250 | 13.50 | 14.47 |
| Zinc - General | 53.1 | 2.88 | 3.09 |
| Virgin | 72 | 3.9 | 4.18 |
| Recycled | 9 | 0.49 | 0.52 |
| Copper | 57 | 3.6 | 3.81 |

Table 8.1 above gives similar information to that of Table 7.1 but focusses on steel and its constituent elements. The data is extracted from Hammond and Jones (2011), who acknowledge the difficulty of compiling data from several sources that employ different boundary conditions. Consequently, the data range is wide in some cases and depends on a number of assumptions. For instance, all steelmaking processes in practice include at least a small scrap metal content and, therefore, the primary (virgin) steel data included in Table 8.1 below is hypothetical.

Ashby (2009) has shown that the only real substitute for steel as a construction material is concrete. However, concrete is only strong in compression and needs steel reinforcement in tension zones. Furthermore, concrete cannot be used outside the construction industry. As the world population is predicted to reach 9.7 billion by 2050 (UNDESA, 2015), steel production is anticipated to have risen by 1.7 times to approximately 2500 Mt/annum as shown in Figure 8.1 below. About 1500 Mt of this amount is expected to be from primary (iron ore) production and the balance from secondary (recycled) production (Worldsteel, 2012b).

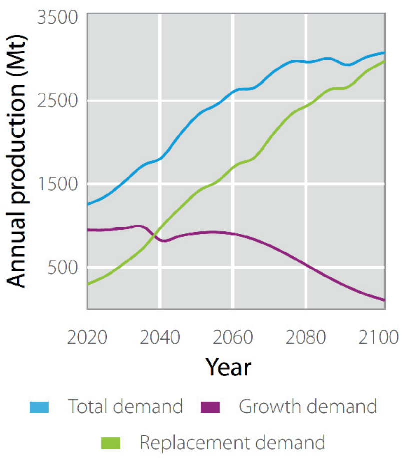



**Figure 8.1: Predicted steel use (Worldsteel, 2012b)**

At present, the iron and steel industry emits approximately 35% of the industrial sector and 7% of the global greenhouse gases, of which 93% is carbon dioxide (International Energy Agency). The emissions depend on the production route followed but the weighted average, based on the production share of the three main methods, is 1.8kg of $CO_2$ for every kilogram of steel produced (Worldsteel, 2012b). Table 8.2 indicates the approximate emission breakdown for each steel production process, including fabrication.

**Table 8.2: Emissions estimates per unit processed for major steel production processes (Allwood and Cullen, 2012)**

| Process | Emissions (kg$CO_2$/kg) |
|---|---|
| Iron making - blast furnace | 0.5 |
| Coking | 0.2 |
| Sintering | 0.4 |
| Direct reduction | 1.2 |
| Steelmaking – oxygen blown furnace | 0.2 |
| Steelmaking – electric arc furnace | 0.5 |
| Scrap preparation | 0.01 |
| Steelmaking – open hearth furnace | 1.0 |
| Continuous casting | 0.01 |
| Ingot casting | 0.05 |
| Hot strip milling | 0.1 |
| Cold strip milling | 0.4 |
| Plate mill | 0.1 |
| Rod and bar mill | 0.2 |
| Section mill | 0.2 |
| Galvanising plant | 0.2 |
| Tinning mill | 0.04 |
| Extrusion | 0.2 |
| Primary mill | 0.1 |
| Forming | 0.1 |
| Steel product casting | 2.4 |
| Iron foundry casting | 1.7 |
| Fabrication | 1.0 |

The absolute emissions are estimated at 2.0 Gt$CO_2$/year for making liquid steel only, 2.5 Gt$CO_2$/year for stock products and 3.5 Gt$CO_2$/year for final products (Allwood and Cullen, 2012). In spite of an increased fraction of recycled metal over the years, these GHG emissions are predicted to double by 2050.

As steel cannot be substituted at present, the only practical solution is, therefore, to continue improving the current processes and developing innovative solutions that reduce emissions and energy consumption. It is inevitable that a significant amount of resources will be required in research and intervention from policymakers and the industry. A logical starting point is an in-depth understanding of the lifecycle of steel shown in Figure 8.2 below with a view to suggest practical improvements that can be effectively implemented at relatively low cost.

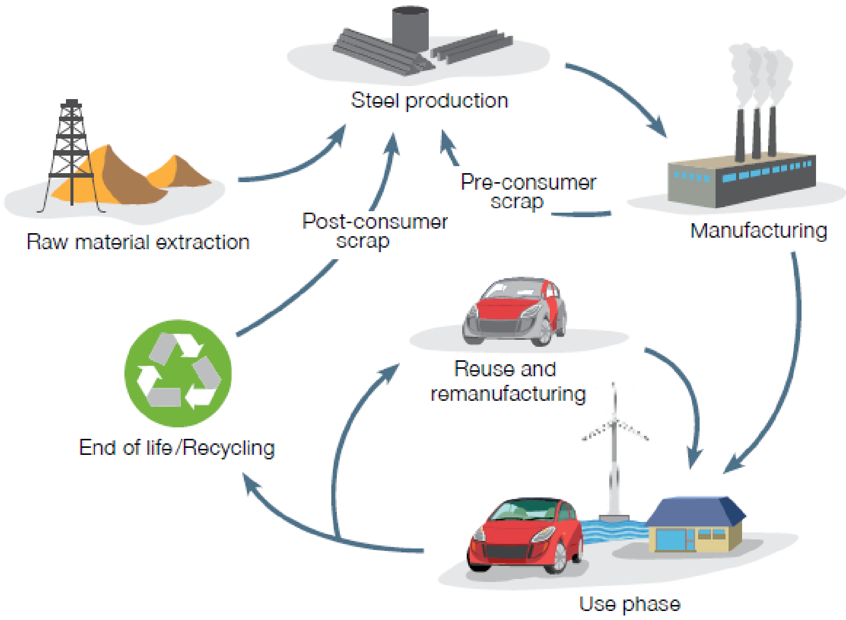



**Figure 8.2: The life cycle of steel (Worldsteel, 2012b)**

Steel production (steel mill) is at the centre of the cycle, purchasing ore from mining companies that extracts raw materials from the ground and, usually through scrap metal merchants, recycled metal from manufacturing (pre-consumer scrap) or individual product owners at the end of the steel life (post-consumer scrap). The steel mill then produces its stock products and sells them directly to manufacturing (fabricator) or to a stockiest, who in turn sells them to the fabricator. Individual clients employ fabricators to manufacture the stock steel into completed components and assemble them into buildings on site. Some steel products and their components, including buildings, are considered for re-use and remanufacturing prior to end-of-life recycling (Metals for Buildings, 2011).

The majority of the emissions in the production, manufacture and use of steel are related to the energy required to process it. A combination of primary and secondary (electricity) energy is required for the mining and steelmaking phases, but downstream processes mainly use electricity. Having a metred fuel supply and a known quantity of processed material means that the amount of energy consumed can be precisely computed. However, energy needs depend on the production route and number of processes involved. Downstream of the steelmaking process, the records are not accurately maintained and individual companies are reluctant to release information that is considered to be commercially sensitive (Allwood and Cullen, 2012). Therefore, allocating energy to products is not a clear-cut exercise.

Emissions are rarely measured in practice and often the published figures are drawn from calculations or deductions from experimental investigations. These emissions are from chemical reactions in the reduction of ores to liquid metal, directly from fuel combustion and indirectly from electricity generation. The first two emissions can be calculated from the quantities of material and primary fuel involved in the process. The third, electricity, is a direct energy which needs to be linked back to the primary energy source such as coal, as this is the source of carbon emissions. Of the most common power plants, an onshore wind power station has the least environmental impact whilst a coal-fired power generation has the largest, as shown in Figure 8.2 below (NEI, 2016).

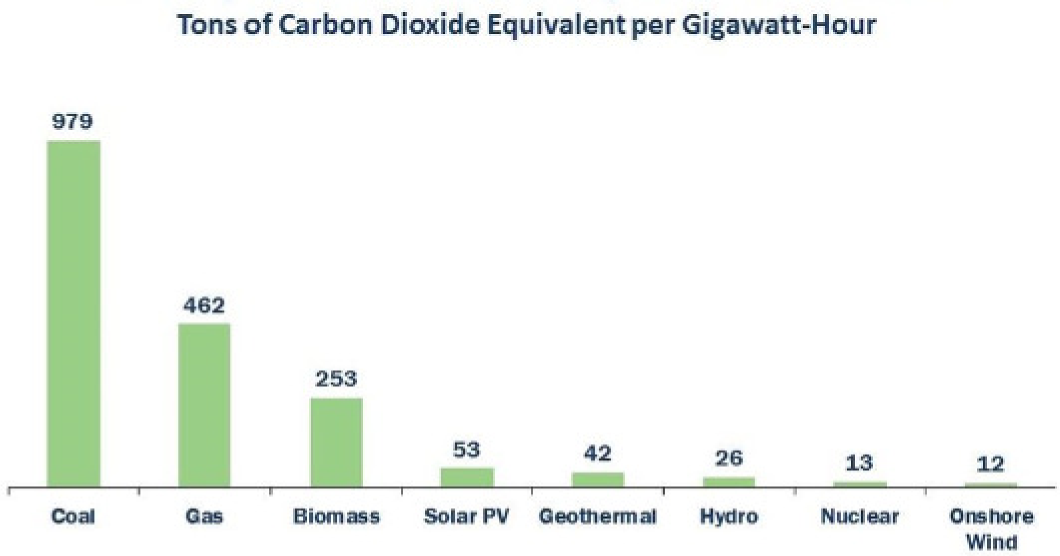



**Figure 8.3: Comparison of lifecycle emissions of energy technologies (NEI, 2016)**

However, the environmental impact of a power plant should not only be judged by the amount of carbon it produces but also by the benefits it provides. For example, coal-fired power generation produces fly ash as a by-product, which can be used as an additive in cement thereby reducing the carbon content of concrete, cement and grout.

## *8.1 Mining*

As established in Chapter 5, iron ore, coke (processed coal) and limestone are the main natural resources required to make steel. Iron is a chemical element that, because of its natural affinity for oxygen, appears naturally in the form of iron oxide. The most common forms of iron oxide are haematite and magnetite, which both have low metallic concentrations such that good quality ores consist of about a quarter of pure iron. The extracted rock is crushed first and the iron ore separated from the quartz by use of magnets for magnetite and floatation for haematite (Worldsteel, 2011a).

Iron ore is one of the earth's most abundant materials (USGS, 2012) but at the current consumption rate the world will eventually run out of this natural resource. The current operations are targeting the best deposits in terms of quality and ease of extraction. Future ore deposits will be less convenient and may lead to greater energy requirements and more carbon emissions during their extraction.

The uneven geographical distribution of iron ore has adverse environmental and economic impacts on steel production. For instance, cheap hydro-electricity is largely available in Canada, while iron ore is abundant in Australia, Russia and Brazil. This means that raw materials are being transported long distances or a more carbon-intensive power supply is being used for processing steel. Currently China acquires the majority of its imported iron ore from Australia. In future, this uneven distribution of iron ore may cause political conflicts as the resources start to deplete (Allwood and Cullen, 2012).

Although not to the same extent as during the steelmaking phase, the mining stage emits greenhouse gases through the combustion of fuels used by the mining equipment and for the transportation of the ores. The extraction process requires the use of chemicals some of which are harmful. Some of the material production processes are water intensive and, depending on the location of the mining site, may cause local water stress (Worldsteel, 2011a).

A tonne of steel requires much more than a tonne of feedstock material, with the majority of impurities removed during the steelmaking process. Furthermore, to yield a tonne of ore typically requires 10 tonnes of the rock to be extracted. The band of iron ore is usually not on the ground surface and so much more land stress and environmental degradation occurs during the mining process. Rio Tinto iron ore expansion in Western Australia gave them access to 71 thousand square kilometres of land, an area larger than half of England (Allwood and Cullen, 2012).

## *8.2 Steel production*

The steel industry produces liquid steel from the ores and recycled steel and casts it into stock products. The major impact of the steel manufacturing process is the use of virgin materials and energy, which results in the emission of greenhouse gases. The materials include: iron ore; coal; limestone; and recycled steel; but other materials are added in small amounts as outlined in Chapter 5. The main emissions include: carbon dioxide; sulphur oxides; nitrogen oxides; and dust (Allwood and Cullen, 2012).

Over the years, the steelmaking industry has developed technology that uses raw materials efficiently. According to Worldsteel (2011a), a tonne of crude steel produced through the BF-BOF route requires 1.4 tonnes of iron ore, 0.77 tonnes of coal, 0.15 tonnes of limestone and 0.12 tonnes of recycled steel. The EAF typically requires 0.88 tonnes of recycled steel, 0.15 tonnes of coal and 0.043 tonnes of limestone to produce a tonne of crude steel.

Converting iron ore into steel is an energy-intensive process, especially the liquid metal phase. Energy is required to melt the materials in order to facilitate casting into different shapes, to energise the atoms leading to diffusion and to encourage chemical reactions between atoms (Allwood and Cullen, 2012).

In compliance with well-established international standards, steel products from different steel mills cannot be easily distinguished and so consumers have the freedom to buy the cheapest stock on the market. Thus, it is difficult for the steel mills to dictate the selling price of their stock, although they can control operating costs. With energy use accounting for up to 40% of operating costs (APPCDC, 2010), this has been the principle cost-cutting initiative in the industry for years as highlighted in Figure 8.4 below. The graph shows that, on average, energy consumption has been halved over the past 35 years.

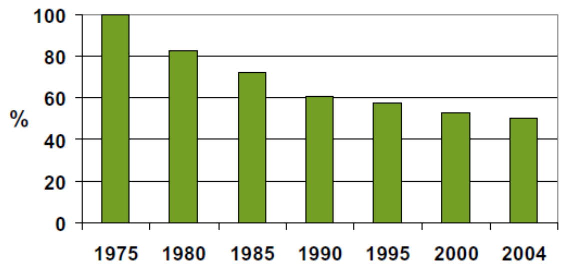



**Figure 8.4: Indexed energy consumption/t crude steel produced in North America, Japan and Europe (1975 = 100%) (Worldsteel, 2008)**

According to Allwood and Cullen (2012), the theoretical minimum energy for an ideal steelmaking process from ore is 6.7GJ per tonne of liquid metal. A current best practice of about twice this absolute limit demonstrates the maturity of the steelmaking technology. The savings are realised through process efficiency, improvements in electricity generation and developments in technology. A single continuous thermal cycle in the furnace helps to further reduce heat losses and start-up energy consumption. However, there are processes such as tempering (high temperature after quenching) and annealing (high temperature after cold forming) that still require a second thermal cycle.

The high temperatures involved in steelmaking mean that intricate cooling techniques are necessary. About 80% of the water used in steelmaking is for once-through cooling and the remaining amount is used for cleaning and cooling other areas of the process, as well as in heat processing equipment. Sea water is preferred as it can be returned to the source with nominal change in quality (for example, the water may be slightly warmer than the original state) but this depends primarily on availability and national legislation. Water consumption is very low and recycling rates of up to 98% in advanced technologies are possible, with the main losses being through evaporation (SCI, 2003).

Emissions into the air are monitored by the industry, enabling process improvements to be investigated and implemented. Some of the control methods include dust suppression, thermal oxidation, chemical treatment, scrubber and filtration systems (SCI, 2003).

Considering that extensive research and marked progress has been made over the years, can the environmental footprint of the steelmaking process be reduced any further? The parameters for an efficient furnace have been long established and these include using pure oxygen instead of air, increasing capacity to benefit from economies of scale, continuous operation of furnaces to minimise stabilisation energy, properly sealed and insulated furnaces to reduce heat losses, maintaining the optimum air-fuel ratio, heat recovery from exhaust gases and better programming and control of processes (Allwood and Cullen, 2012).

The answer, however, is a resounding yes! Although advanced technologies are now very efficient, steelmaking companies are at different maturity levels. The average energy consumption in primary steel production is estimated as 25 GJ/tonne compared to the theoretical minimum of 6.7 GJ/tonne (Allwood and Cullen, 2012). This average figure is also more than double that of the current best practice. There are still significant improvements to be brought to some sites through technology transfer and sharing of best practice in order to achieve optimum operating levels.

According to the IEA and OECD (2009), if all sites have the latest steelmaking technology installed, there will be a saving of about 14% in the current emissions. The industry's target is to reduce the use of primary energy in steel production (see Figure 8.4 above) to 19% (Worldsteel, 2012b). Some of the areas of improvement include increased recycling rates and the utilisation of by-products, energy efficiency and process automation to enhance precision.

Most of the carbon dioxide is generated from the ore reduction process within the blast furnace as a result of the chemical reaction between iron ore and coke. Whilst coke cannot be completely substituted because of the structural role it serves in the BF, there is already replacement (by pulverized coal or natural gas) of up to 50% in some applications (SCI, 2003).

Furthermore, there has been large-scale research in low-carbon technologies across the globe. These programmes include the EU's ULCOS (ultra-low $CO_2$ steelmaking) and Japan's Course 50. Other programmes, largely sponsored by the steelmaking industry, are taking place in the USA, Canada, South America, South Korea, China and Australia. Technologies that reduce GHG emissions by 50% have been identified and a number of experiments are now in the feasibility stages. For example, a demonstrator for the ULCOS-BF has just been completed in the Netherlands. This process relies on the separation of the top gas and the

Carbon Capture and Storage (CCS) principle to recycle the useful gases back into the blast furnace as a reducing agent (Worldsteel, 2009).

Although steel already has a superior strength to weight ratio when compared with other construction materials, there is on-going research on improving both its strength (in order to reduce material weight through dematerialisation in designs that are governed by strength) and ductility (which improves flexibility and the manufacturing process) properties (SCI, 2003).

The two most common grades of steel in building design, S275 and S355, cannot be distinguished by visual inspection. There has been a long standing debate on whether it would be beneficial to only maintain the higher grade S355 steel (Needham, 1978). Not only does this prevent on-site errors of inadvertently incorporating an S275 section where S355 grade was specified, but it facilitates dematerialisation and encourages disassembly and re-use (no verification is required for re-use if a single grade is adopted).

In addition, there have been discussions on whether there is any benefit in liquid steel being cast in the shape of the final product. Allwood and Cullen (2012) highlighted that it will be difficult to control the grain sizes, defects and cooling rate of the steel. This is likely to lead to a less strong and less tough product, with defects that are difficult to remove through further processing.

This efficiency in the steel-making process has been extended to recycling rates and co-product use. The main by-products of the steelmaking process include slag, dust, sludge and gases. These are recycled back into the process or sold under the "industry symbiosis" programme whereby companies trade in by-products. Not only does this arrangement reduce landfill waste and generate revenue for the steel producers but it conserves natural resources and reduces GHG emissions (Allwood and Cullen, 2012).

In modern steelmaking processes, nearly 100% of iron making (blast furnace) slag is recovered. However, the recovery rate of steelmaking (ferro-lime) slag is slightly lower at approximately 80% owing to its high free lime content. Research on the separation of this free lime is underway, which has ready applications in fertilisers and cement production (Worldsteel, 2012b).

Clinker, the main ingredient of cement, produces about 0.52 $tCO_2$ emissions per tonne of the material.  Cement itself is known to contribute to 2.4% of global $CO_2$ emissions (Gibbs et al., 2001). In the UK, ground granulated blast furnace slag (GGBS) can be used to replace up to 85% of normal cement in concrete.  Supplies of GGBS in the UK can be limited and is rarely disposed of on waste sites.  Although concrete with GGBS suffers from a slightly longer setting time and an increased rate of carbonation, it benefits from a considerably low carbon footprint and reduced heat of hydration.  Slag is also used as a substitute for primary aggregates in construction (Hammond and Jones, 2011).

Exhaust gases contain 80% of chemical energy lost from the furnace.  These gases can be captured, cleaned and combusted to recover the energy through innovative technologies such as the CCS system mentioned above. The recycled energy can be used as fuel in the furnace and other downstream processes or for heating up the coke-making ovens, thereby reducing the need for primary energy.  Research on the capture of hydrogen from coke gas is also underway (Worldsteel, 2008).

Whilst the dust and sludge are fed back into the steelmaking process, the iron oxides are sold for the manufacture of electric motor cores and cementitious products. Zinc oxides from the EAF and coke oven gas from the BF-BOF are raw materials to be sold to the fertilisers and plastics industries.  According to Worldsteel (2012b), steel waste rarely finds its way to landfills and the industry target is zero waste.  Worldsteel (ibid.) claims that an average of 98% of raw the materials currently being used in the production of crude steel are being converted into useful products or by-products.

Steelmaking involves high economies of scale, meaning that the more volume that each site can produce, the cheaper the processing costs.  As a consequence, most of the steel is produced from relatively few locations across the globe (Worldsteel, 2012b).  Whilst the large conglomerates rely on this benefit, developing economies are likely to emit less carbon as they can provide newer technologies and cheaper labour costs.

The level of demand for steel products, and the efficiency in their use, are the result of large investments by the industry in the training and education of its consumers, employees and the general public. This includes the training of professionals such as structural engineers who help to create the demand for steel through building designs and specifications. The following subsection will therefore look at this design phase prior to moving on to the fabrication stage.

## *8.3 Design*

Even an aggressive approach to the reduction of energy consumption in material production will not meet the 2050 carbon emission target set in the Climate Change Act without a reduction in material demand (Gutowski et al., 2013).

Whilst design is not a phase of steel production per se, it is a vital stage that generates the demand for steel products. Prior to ordering material from the steel mill, the fabricator would have received an order from a client to construct the building structure. An engineer would be involved, either from the client or fabricator side, to carry out the structural design and prepare the relevant technical specifications.

The material to be used for the building frame is decided during feasibility studies as informed by a structural appraisal (BS 5950-1; BS EN 1993-1-1). Many factors, such as aesthetics and energy consumption, are simultaneously considered by the delivery team of professionals involved in order to achieve a balanced design across building quality, functionality, cost and environmental impact.

However, environmental impact is seldom considered because the structural arrangement is decided right at the outset of a project before any LCA has been undertaken (DEW, 2007). Yet the best opportunity to address environmental issues is at this early stage of design (Ding, 2008; Kohler and Moffat, 2003).

As a construction material, steel offers many benefits such as fast and safe assembly, less noise on site and manufacturing precision as it is fabricated off-site (SCI, 2003). Not only does the off-site manufacture reduce wastage on site, but the little waste collected by the fabricator goes straight to the furnace without the need for further processing.

Structural engineers are best placed to complement the improvements being realised by the steel manufacturing industry through the design of robust and efficient buildings. Below are some of the areas where the structural engineer can contribute in the reduction of carbon footprint of building:

- Steel can span long distances due to its superior strength to weight ratio relative to other construction materials such as concrete, leading to a reduced amount of supports. Furthermore, long span beam design is usually governed by deflection rather than bending capacity whereby pre-cambering of steel beams can be employed to maintain in-service deflections within limits and still use relatively lighter sections. The principle of steel-concrete composite action (use of concrete in compression and steel in tension zones) can also be employed to optimise the steel beam sizes. Less material and fewer columns translate to lighter foundations as well as reduce the effort required to transport and assemble the steel structure (SCI, 2003).
- The adoption of a repetitive structural grid and/or floor heights will minimise steel fabrication and construction effort. Often this leads to the specification of standard cladding panels and other follow-on trades, thereby reducing GHG and waste on downstream activities. This will also support the development of simple and efficient interface details that can be tightly sealed to avoid air infiltration and cold-bridging.
- Buildings cannot be made of steel alone and the design of all associated elements should be conducted with the minimisation of overall emissions in mind. For example, a steel frame is lightweight and requires relatively fewer and lighter foundations but the use of heavy partitions may negate this benefit.
- The more material used, the more embodied carbon and, therefore, the variety of other components that completes the building must complement the steel in order to achieve overall material efficiency. Wise (2010) refers to a building where only 40% of the concrete frame was provided for structural performance reasons (the remaining 60% as finishes). High carbon materials such as steel and concrete should only be used for structural purposes. Wise (2010) suggested that Building Regulation approval should only be granted if the utilisation ratio of structural elements is more than 90%, implying less than 10% waste.

- Minimising the environmental impact of buildings begins with keeping the building simple and functional, right from the outset of the design phase. The energy that the building is likely to consume is directly proportional to the complexity of the technical building systems (Atkinson et al., 2009). Passive (solar heating and natural ventilation) control is one of the main techniques used in building system design to minimise operational energy consumption.
- With the correct building layout (for example, north facing) and structural arrangement (for example, the provision of thermal mass), passive heating and cooling can be utilised to achieve thermal comfort during the building operating phase (DEW, 2007). The structural engineer needs to work closely with the rest of the delivery team and other stakeholders to develop the building shape, form and orientation that optimises passive control. Unfortunately, passive design is still being supplemented by mechanical plant in the UK, especially for those rooms located away from the building elevations.
- Not only does passive control reduces operation carbon emissions but also minimises the size of the mechanical plant to be installed in the building, resulting in lower loadings to be applied to the structure. Recent design developments such as open plan offices and use of lightweight cladding systems have resulted in further reduction of structural loadings. With developments in 3D modelling technology, it should be possible to further evaluate and establish realistic building loadings and behaviours, in terms of both structural performance and energy needs. Thus, a lean and efficient structural design will result in the optimisation of structural materials, which translates to a low embodied carbon footprint (DEW, 2007).
- Often long after their design life, steel buildings can easily be adapted for change of usage if the superior strength to weight ratio of steel is exploited in creating long spans and flexible spaces. A steel building should first be designed for interchangeable use in its primary location without the need for major renovation or demolition (Oti and Tizani, 2015). If this is not viable, the building should be designed for disassembly for use in developing markets where they add value, thereby extending the useful life of the steel. A building can also be dismantled and the steel

components re-used for temporary supports or as reinforcement in concrete elements.

- It is at the design stage that important clauses can be written into the contract documents. Building owners can be obliged to justify re-use and recycling before considering disposal at end-of-life (Ayres, 1997). A recovery plan should be part of the designer's remit in order to ensure that the quality of the re-used building or recycled material is maintained. The plan should include the available options for re-use, floor and foundation load capacities, construction and demolition methodologies, scrap steel separation methods and where the steel could be recycled.

As stated above, there is a balance to be struck among the environmental, social and economic aspects of sustainable development. Allwood and Cullen (2012) estimate the average metal value to be 6% of the final purchase price of a building and consequently material costs seldom take priority in decision making. Indeed, it is argued that the UK industry may be specifying and purchasing more steel than necessary in order to minimise its high labour costs.

The researcher believes that, in order to minimize emissions, the structural design of steel buildings should not be carried out by the manufacturer but by an independent consultant. Often significant decisions would have been made by the time the project reaches the steel contractor and introducing visionary thinking at that stage will cost money that most clients are not willing to pay. Secondly, manufacturers are there to sell steel and for them to propose solutions that reduce their income does not make business sense. However, these manufacturers should be employed as early as possible to allow their experience to be captured into the structural designs.

The outcome of the design phase is a set of technical specifications, drawings and other supporting documents that allows the fabrication phase to commence.

## 8.4 Fabrication

The stock products from the steelmaking industry are processed into final components through manufacture. The fabrication processes involved include cutting, drilling, forming, and joining of steel elements into complete components that are ready for final assembly. Unlike the steelmaking industry, where environmental data is managed by the Worldsteel (2011b) LCA forum, data collected from this stage onwards is no longer co-ordinated properly. Therefore, there is a lack of consistency that has resulted in gaps in existing knowledge.

The energy use in this phase mainly depends on the number of processes involved. For instance, very few processes are involved with the Universal Beam (UB) and these could be limited to: rolling into shape; cutting to length; and welding end plates for connections (Allwood and Cullen, 2012). The majority, if not all, of the steel fabricators in the UK use metered electricity as their energy source and, with accurate measurement of the amount of processed material, emissions could be easily calculated.

Despite the energy use in this phase being relatively low compared to the upstream activities, it is still significant enough to present opportunities for savings. Bergstrom (2010) established on a particular case study that 2.55 kWh/kg of fabricated steel was used for this manufacturing phase. Shot-blasting was found to be the most energy-intensive process contributing to about 86% of the energy used in the factory, followed by the welding equipment at 6%.

According to Worldsteel (2012b), more scrap metal is collected during fabrication than that at the end-of-life of the steel product. Pre-consumer scrap is of high value because it is of known composition and can be separated in the workshop and recycled directly into steel of an equivalent grade. Nonetheless, fabricators ought to minimise waste as this will in turn reduce the energy consumed and emissions produced in their factories. Likewise, the energy and emissions associated with transportation of materials to the factory and waste back to the mills will also reduce.

A discussion held with one fabricator in UK revealed that this particular company only kept offcuts longer than 1.5m in its yard for future smaller jobs. This implies that anything less than 1.5m long was automatically considered as waste. However, the fabricator strived to minimise cutting wastage to no more than 300mm by carrying out optimised material cutting plans before placing an order. For a 22m long beam (the maximum length that was supplied to this fabricator at the time), the above offcuts give a range of 1.4% to 6.8% waste. From a separate case study carried out on a particular manufacturer, Bergstrom (2010) established that 8.4% waste was produced in the factory.

UK fabricators have made or are making significant investments in 3D modelling technologies such as Computer Aided Design (CAD), Computer Aided Manufacturing (CAM) and Computer Aided Process Planning (CAPP) with direct links to Computer Numerical Control (CNC) machines. Further investment in associated IT software has facilitated the transfer of information between fabrication and construction (SCI, 2003). Added value includes the sharing of methods of working that minimise emissions and waste as well as maximising the time available for the refinement of the design.

There are several cost-cutting initiatives that are being pursued by steel manufacturers visited by the researcher that have inadvertently resulted in low carbon footprint. These initiatives include the use of optimisation software (to minimise waste), just-in-time trading software (to optimise time spent handling materials thereby reducing rework) and ordering of the right size of materials from mills (avoid additional welding in the factory and minimise waste).

In order to encourage the implementation of improvements to the manufacturing process and the reduction of carbon emissions, the steel industry has developed the Climate Action programme in 2009, a framework where fabricators collect data relating to GHG emissions and energy consumption. The Worldsteel forum processes the information on behalf of the participating companies and provides a comparison of results to assist stakeholders understand where improvements are most effective or needed (Worldsteel, 2011b).

Under the “corporate social responsibility” banner (ISO 26000), many manufacturers and contractors subscribe to environmental management systems (BS EN ISO 14001) that encourage the monitoring of improvement of their operations. The participating companies are required to voluntarily report the mass and energy flows of the materials they process at their workplace at least once annually. The dissemination and transparency of such information still need to be improved.

From Table 8.2, the carbon emission for this phase is shown as 1.0 $kgCO_2$/kg of steel. The case study in Chapter 9 has also reviewed this fabrication phase of steelwork.

### *8.5 Transport*

There are different forms of transport that link the various phases of a product's life. For steel, these include the link between mining, steelmaking, steel merchant, fabrication, construction site, scrap yard and back to the steelmaking yard.

On average, transport contributes less than 7% of the cradle-to-site embodied carbon emissions for construction materials although this figure is higher for materials that require low processing energy such as concrete aggregates (Hammond and Jones, 2011). The unit for transport impact on GHG emissions is tonne kilometre (tkm), which is the effect of transporting a tonne of material over a distance of one kilometre. Consideration is given to whether return trips are empty or not. In general, road transport has a larger impact than sea or rail. Online route planners can be used to evaluate travel distances.

The stage that is reviewed in the case study in this research is the often-ignored factory gate to the construction site phase. Indeed, the carbon emitted during expedition to site is normally included as part of the fabrication phase. The steelwork considered by the case study in Chapter 9 was hauled over long distances from the fabrication factories to the site.

### *8.6 Construction*

Steel offers the safest construction material because the components are prefabricated in a controlled factory environment with minimum requirements for on-site adjustments. The erection of the steel requires a very small number of skilled personnel with minimal shuttering and handling operations that are potentially dangerous (Worldsteel, 2012b).

Steel frames involve fast, clean and quiet construction, thereby providing earlier weatherproofing for follow-on trades on site and reducing the overall cost. Waste disposal in landfill, disruptions to neighbouring communities, noise and dust pollution can be controlled owing to the fabrication process being carried out under factory conditions (SCI, 2003).

According to Smart Waste (cited in Hammond and Jones, 2011), up to 22$m^3$ of waste is generated for every 100$m^2$ of floor area during the construction process. This amount of waste needs to be considered in the embodied carbon assessments. Waste from structural steel, if any, will be generated by design and construction errors as well as over-ordering by contractors.

Assembling the steel frame into its final shape and form is straightforward and usually needs very few components to be adjusted. The energy expended is substantially less than the processing stages, so much so that it is often ignored in carbon footprint calculations. This consideration will be investigated as part of the case study in Chapter 9.

## *8.7 Operation and Maintenance*

Unlike timber, steelwork is resistant to attack from fungi and termites. However, it occasionally needs corrosion and fire protection. With the right specification, steel structures can have a long service life without the need for periodic maintenance. UK buildings are generally designed for a functional life of 60 years and bridges for 120 years. In reality, this life expectancy can be surpassed by a large margin when adequate surface treatment and proper maintenance is provided (SCI, 2003).

With adequate design considerations, lightweight partitions can be moved around during service without affecting the structural integrity of a steel building. The lightweight nature of steel structures often allows alterations to be carried out on the superstructure without overloading existing foundations. Where the structural elements need to be replaced, these can be taken apart and rebuilt relatively quietly and discreetly with minimal dust emissions (SCI, 2003).

The embodied carbon emissions of steel will be minimal for this phase of the building life. These emissions will be linked to activities such as repairs, restoration, alterations and general maintenance. For the majority of well-designed buildings, only the major restorations and alterations activities will affect the primary steel structure. When the longevity of steel structures is factored in, the in-use embodied carbon emissions are considered to be insignificant.

This phase will not be covered in the case study in Chapter 9. It is noted though that the emission of operational carbon, often an order of magnitude high than the embodied carbon, would have started at this stage.

### *8.8 Re-use*

Re-use is the best form of recycling and is preferred because no energy-intensive reprocessing operation is necessary. Furthermore, valuable virgin materials are conserved and potential waste is diverted away from landfill. Fittingly, the durability of steel allows many of its products to be used over and over again, thereby reducing GHG emissions. According to Allwood and Cullen (2012), building re-use can save up to 1.5kg$CO_2$ emissions for every kg of steel.

Traceability (in the form of records provided by the supply chain including test certificates) facilitates re-use and recycling of buildings and their components. Unknown residual elements derived from scrap metal may have a detrimental effect on the future use of steel with a recycled content. This difficulty especially pertains to the traceability of material bought from stockholders and intermediate manufacturers (SCI, 2003).

A steel frame is conceptually a kit of prefabricated beam and column components that are delivered to site for final assembly. Modern buildings are designed for disassembly, enabling subsequent re-use of building components. With improvements in standardisation and optimum use of materials, re-use of steel frames in the UK can be increased above the current 5% estimate (Tata Steel and BCSA, 2012).

The majority of companies involved in the re-use of structural steel downgrade the material strength to the lowest possible in order to avoid expensive verification processes (Allwood and Cullen, 2012). More effort is still required to promote consumer confidence in re-used steel buildings and their components. In future, steel fabricators can be certifiers of used steel components with the help of governments and the industry in setting out the necessary guidelines.

This part of the steel building life is not being investigated in the case study covered in Chapter 9.

## *8.9 End-of-life: Recycling and Waste*

Even after several re-uses and an extended life, a steel building will eventually need to be decommissioned. Steel can undergo several lifetimes with no detrimental effect on quality owing to the current recycling method of melting, casting and rolling. Approximately 50% of world steel production is from recyclable sources (Allwood and Cullen, 2012).

Waste is defined as any of the steel and its by-products that are not recovered and either find their way to landfill sites or remain in the ground as contaminants. The 100% recyclability of steel implies that it can only become waste due to lack of proper recovery measures (Worldsteel, 2012b).

Magnetic separation can facilitate 100% recovery of steel at the end of its life. Also, technology that separates waste by alloy type already exists, but a lot of effort is required to make it commercially viable for businesses. However, Allwood and Cullen (2012) argue that a steel recycling rate of 90% should be the maximum in order to allow a margin for improvement and avoid creating an environmental burden whereby other users of scrap metal are forced to use virgin steel.

As shown in Figure 8.5 below, steel is recovered more than any other construction material in the UK with rates of 99% for all structural steel and 94% of steel construction products (Tata Steel and BCSA, 2012). The average global recovery rate is approximately 85% at present. The high recovery rate of scrap steel is driven to a large extent by the monetary value brought about by an established worldwide market.

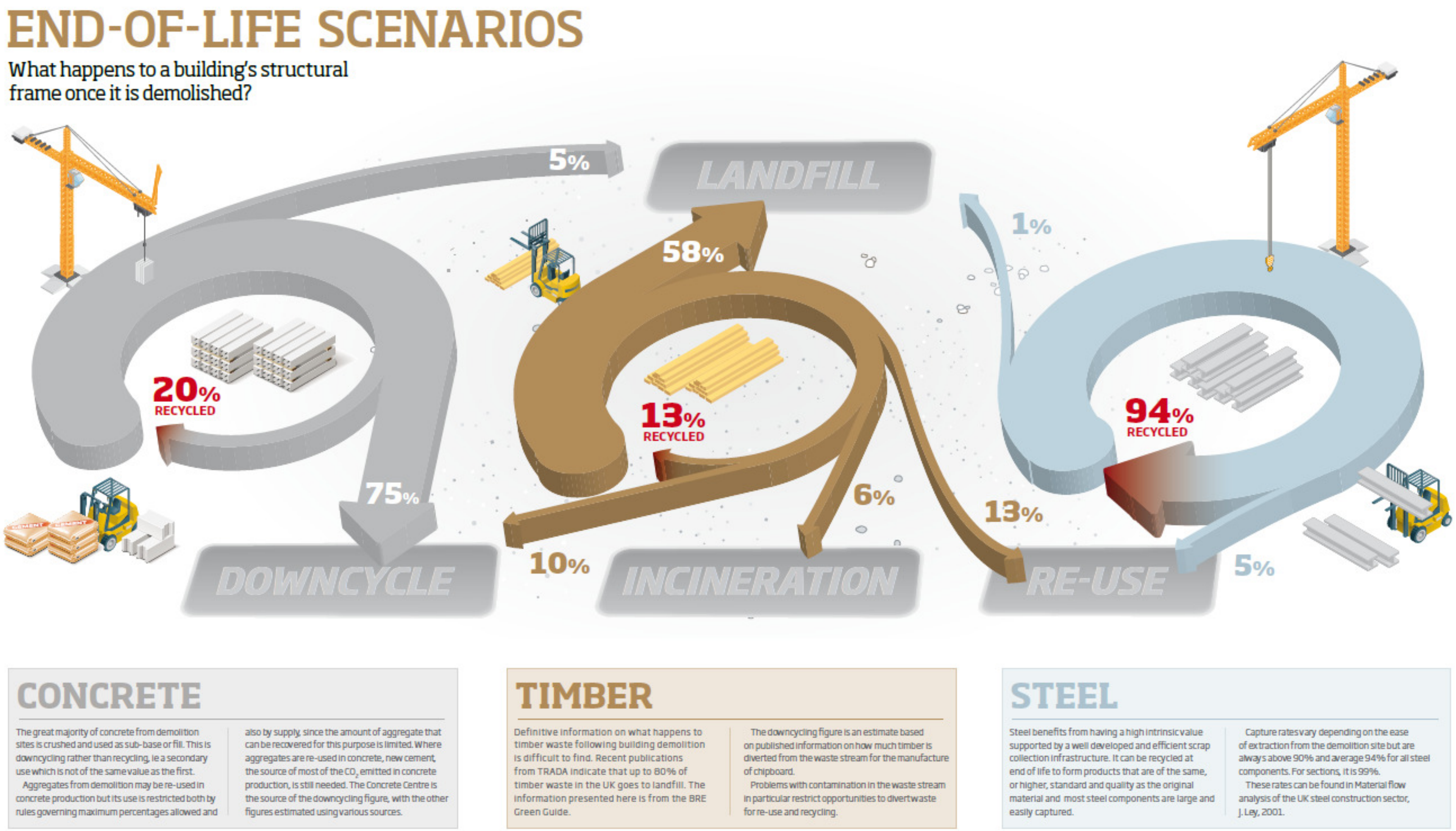



**Figure 8.5: End-of-life scenarios for concrete, timber and steel (Tata Steel and BCSA, 2012)**

Substructure steel recovery rates are less than those for superstructure steel and, therefore, more effort is still required in this area. Steel encased in concrete, steel piles and other below ground steel structures, including reinforcement bars in foundations, are rarely recovered for recycling at end-of-life owing to the high expense involved (SCI, 2003).

As explained in Section 8.4 above, pre-consumer scrap (excess materials and off-cuts from steel production and fabrication) is fed directly back into the steel production. In contrast, post-consumer scrap (recovered at the end of a product's life) needs to be prepared by shredding and baling, including the removal of contaminants such as zinc, before it can be recycled back into the furnace (SCI, 2003).

The benefit of recovering scrap metal is that it prevents the need for the same quantity of steel to be made from the primary production route. Allocation of the potential savings should be carefully considered in order to avoid double counting. A good design will strike a balance between the use of recycled material and designing for recyclability. Therefore, a shared benefit between the systems that provide and consume the scrap metal is more appropriate (Hammond and Jones, 2011).

Efficiency is not only found in the recovery rates at the end of the building's life but also in co-product use as discussed in Section 8.2. The case study in Chapter 9 will identify waste generated on site during the erection of the primary steel frame.

## *8.10 Summary*

At the beginning of this chapter, the published carbon emission figures for several phases of the steelwork lifecycle were identified. This was then followed by a closer look at the process producing these emissions at each phase to see if any improvement could be made.

As outlined in the above sections, the production of steel emits significant greenhouse gases but a huge amount of research is being conducted by the steel industry in the improvement of the production processes (e.g. research in low-carbon technologies and waste separation) and hence reduction of carbon emissions. It has also been established that, although the processes downstream of the steelmaking industry emit relatively less greenhouse gases, additional effort is needed in the collection and dissemination of embodied carbon data.

To that end, the following chapter will now look at a case study for the construction of a real steelwork building. Taking into consideration the available time and resources, the investigations carried out in the case study was limited to the following phases of the steel life cycle:

1. Fabrication;
2. Transport (from factory to site) and;
3. Erection.

# 9 Case Study: fabrication and erection of the Assembly Hall

## *9.1 Introduction*

This case study looks at the construction of the Assembly Hall structural steelwork on the International Thermonuclear Experimental Reactor (ITER) project at Cadarache in Southern France. The study is restricted to the stages between the final design carried out by the Contractor and Subcontractor and erection of steel on site, including the controls carried out along the process.

ITER is a €14 billion project whose primary purpose is to demonstrate the technological and scientific feasibility of producing energy on an industrial scale through nuclear fusion. This involves simulating the process that occurs on the Sun where hydrogen nuclei fuse together to produce helium atoms and an incredible amount of energy. In the absence of natural gravitational forces that facilitate fusion on the Sun, the ITER project is essentially creating conducive conditions for fusion of the hydrogen isotopes (deuterium and tritium) here on Earth. Once the heat is eventually converted into electricity (through steam by use of turbines and alternators), ITER is expected to produce 10 times the amount of power used to run the process. Additional benefits of this process are the low waste burden as well as the absence of pollution and greenhouse gas emissions; the main by-product is the non-toxic, inert helium gas (ITER, 2014b).

Fossil fuels have served the world well as the source of energy up to now but these, through the burning of gas and coal, have damaging environmental impact. With depleting natural resources and energy demand projected to triple by the end of the 21$^{st}$ century (ITER, 2014b), the ITER fusion project was fittingly chosen for this case study on embodied carbon.

The seven contributors to the ITER project, known as Domestic Agencies (DA), are China, the European Union, India, Japan, South Korea, Russia and United States of America. While construction of the infrastructure and buildings by the EU-DA was underway on site (ITER, 2014a), the equipment and services to be housed in these facilities were being manufactured by the other DA across the globe. It is a complex and ground-breaking project in every dimension; be it in scale, technology, scientific, cultural, financial or collaboration between nations.

To align with the overall delivery programme and various financial arrangements, this huge project was broken down into smaller manageable Tender Batches (TB). The Assembly Hall was part of the main civil engineering and finishing works (TB03), procured through competitive dialogue, with an initial contract value of €254m and an overall construction programme of 66 months. The reactor is housed in the main building on site called the Tokamak Complex. There are several auxiliary buildings (ITER, 2014a) to support the smooth functioning of this Tokamak. The Assembly Hall, which is the subject of this case study, is one of these facilities.

Although a number of activities are discussed to bring the study into perspective, the scope of the case study is restricted to the work carried out by the steelwork Subcontractor on this Assembly Hall. It is focused at studying the design, procurement, fabrication, delivery and erection processes involved. The primary aim is to understand and record the activities, resources and time scales involved in this process.

For ease of comprehension, the main parts of this case study are categorized in chronological flow of works as Project Control, Design, Material Procurement, Fabrication, Protection, Expedition and Erection. The general topics of topographical survey, bolt tightening and traceability are also discussed before the concluding section to this chapter. Prior to discussing these processes in detail, an introduction of the Assembly Hall, scope and responsibilities as well as the programme of works are first discussed below.

### 9.1.1 Assembly Hall

The Assembly Hall (ITER, 2014) is a single-storey rectangular building whose function is to provide shelter to the pre-assembly tooling for the Tokamak machine components. This building is equipped with large overhead cranes for the movement of these components. The construction value of the steel frame was approximately €10m, constituting about 4% of the original estimated contract value.

This is a large steel-framed structure of approximately 99m long by 61m wide by 60m high. The roof comprises steel trusses spanning the width of the building and supported on steel columns spaced at 9.3m centres. The building has metal cladding on all four sides although the North gable that abuts the Tokamak complex is considered as a temporary barrier. This barrier is intended to remain in place for approximately five years until the Tokamak building elevation is completed. There is a large access door of 33m wide by 12m high on the South gable.

The Assembly Hall building houses two large cranes of 750 tonnes each and two smaller cranes of 50 tonnes located at about 45m height. For personal access, there is a lift and several staircases in the building. The building is stabilised by steel bracing in the longitudinal direction and portal action in the transverse direction. The roof structure is braced horizontally at the top and bottom chord levels. Figure 9.1 below shows a 3D model of the Assembly Hall steel frame.

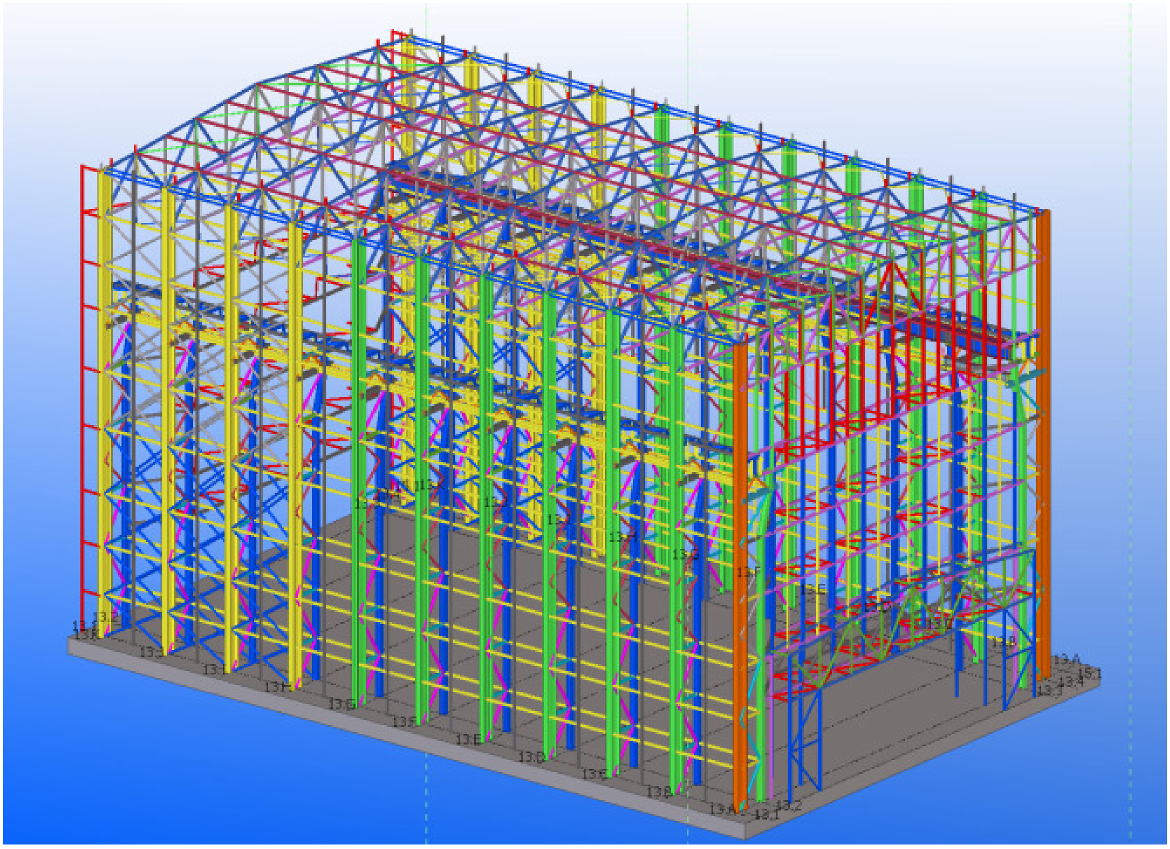


**Figure 9.1: 3D model of the Assembly Hall steel frame viewed from the South-West (by Subcontractor)**

As mentioned above, the works on site were contracted under several bite-size Tender Batches. The 1.2 to 2.2m thick concrete raft slab for the Assembly Hall, including the holding down bolts for the steel columns, was constructed as part of a separate enabling works Tender Batch and was all designed by the Engineer. Therefore, the scope of the contracted works covered in this study is limited to the steelwork superstructure (i.e. steelwork above the concrete raft slab).

### 9.1.2 Scope and responsibilities

Like any other nuclear project, there were numerous bodies involved in the construction of the ITER project. The Assembly Hall is not a nuclear building per se but its failure could impact on the Tokamak Complex and therefore the French nuclear safety authority (*Autorité de Sûreté Nucléaire* - ASN) had a vested interest in its construction. The flowchart in Figure 9.2 depicts the contractual (solid) and communication (dashed) lines between the different stakeholders involved in the works covered by this case study.

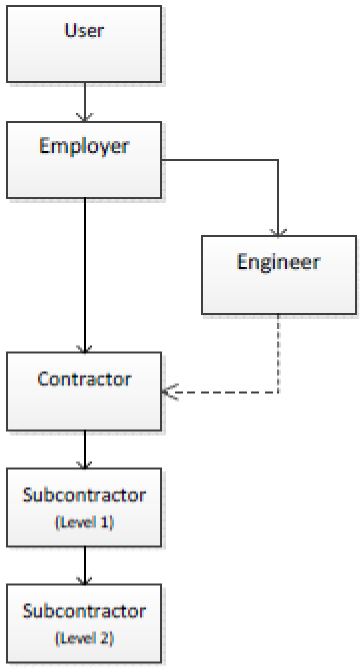



Figure 9.2: Flowchart showing the contractual and communication lines between stakeholders

The **User** is essentially the ultimate client; the entity that occupies and uses the completed building. During the construction phase the User was an active stakeholder, with its surveillances and monitoring carried out by competent construction advisors and the ASN. The **Employer** was responsible for the procurement of the construction contracts and was supported by various expects and specialists, including Legal Inspection and HSPC. The **Engineer** had a dual responsibility of designing the primary steel frame up to detailed design stage and administering the Employer-Contractor contract. The main **Contractor** was responsible for the construction of the whole project as well as carrying out all the remaining structural design works. The steelworks were sublet to a specialist **Subcontractor (Level 1)** *[hereafter referred to as Subcontractor]*, parts of which were in turn sublet to various other **Subcontractor (Level 2)** *[hereafter referred to as Sub-subcontractor]* and suppliers. These defined terms are employed throughout this chapter.

The Subcontractor was responsible for the procurement and fabrication of all the steelwork for the Assembly Hall. The selection of the steel materials needed to conform to European Standards, primarily BS EN 10025, BS EN 10210 and BS EN 10219, in accordance with the specification. The application of corrosion and fire protection to the steelwork, in the factory and on site, was part of the Subcontractor's scope. Although the road transportation of the steel was subcontracted, the Subcontractor was responsible for all the logistics including loading of the components onto the trucks in the factory and unloading on site. The erection of the steel frame on site was also the responsibility of the Subcontractor. The design responsibilities are defined in Section 9.3.

Owing to other on-going projects, the Subcontractor had initially planned to split the steel fabrication between its Portugal and Romania factories. Eventually, only the columns on the East façade were fabricated in Romania and various other Sub-subcontractors were appointed in order to maintain the construction programme on site.

### 9.1.3 Programme of works

If this was a straightforward, non-nuclear project with all input data available from the outset, the Subcontractor estimated that the Assembly Hall works would have taken 14 months to complete (3 months of document production and approvals, 2 months of material procurement and 9 months of fabrication and erection). However, the actual programme of works from procurement to the installation of the roof steelwork alone was 20 months as outlined in Figure 9.3 below.

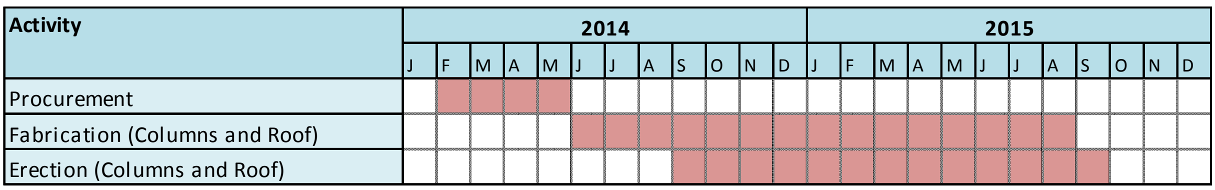



**Figure 9.3: Outline programme for the Assembly Hall**

The global contractual programme was developed by the Contractor in Primavera and the steelworks schedule was produced by the Subcontractor using Microsoft Project. The day-to-day activities were monitored through a three-week look-ahead schedule produced on an Microsoft Excel sheet. The control of the schedules was managed through weekly project meetings with emergent issues addressed through the contractual modification and non-conformity processes.

## *9.2 Project Control*

In order to place this case study into perspective, the following subsections briefly describe the controls implemented to manage documents, equipment, subcontractors, factory activities and site works, together with the non-conformities arising therefrom.

### 9.2.1 Documentation Control

The electronic document management system used to administer the contract was SGTi. Managed by the Engineer, all documentation and communication between the Employer and Contractor teams were handled through this system. The mechanics of how SGTi worked is not a matter of this research but it is worth mentioning that the whole process was made complex by the use of other document management systems listed on Table 9.1 below.

**Table 9.1: Electronic document management systems used by different stakeholders**

| Administrator | Electronic Document Management System | Description |
|---|---|---|
| User | IO-IDM | For internal validation and dissemination of information between User and Employer |
| Employer | F4E-IDM | For internal validation and document management between Employer and its expert advisors |
| Engineer | SGTi | For internal validation and dissemination of information between Engineer, Employer, Contractor and Legal Inspector |
| Contractor | DYMADOC | Intranet for internal validation and dissemination of information between Contractor and Subcontractor |
| Subcontractor | INET | Intranet for internal validation and document management |
| | SAP | Internal information management system for resources and materials (piece by piece) |

The use of different systems is a result of the evolution of the project and the inherent management processes of the different stakeholders involved. In addition, contractual arrangements between different parties made it difficult to unify the document management system. Consequently, significant effort was required from all stakeholders to minimise transcription errors and overall document review periods.

### 9.2.2 Quality and Control Plan

The Contractor was required to submit its quality and control plans for approval by the Engineer, Employer and User prior to any work commencing on site. In addition, key Subcontractors and their quality plans had to be approved by the Engineer and Employer before their part of the works could start.

#### 9.2.2.1 Quality Plan

In the case of the Assembly Hall steel frame, both the Contractor and Subcontractor quality plans were submitted for approval to ensure that adequate planning and control measures were put in place before design and construction activities begun. The Contractor quality plan was divided into system compliance and implementation parts.

The Subcontractor quality plan focused on the design and production works within its scope and was aligned with the main Contractor's plans and commitments. Furthermore, it defined key personnel in charge of its deliverables, with the project and quality managers involved at all stages of the project.

#### 9.2.2.2 Control Plan

The quality control process was broken down into several subsections namely design, details, procurement, material reception, cutting, assembly, welding, surface treatment, expedition, reception on site and erection.

Each of these categories was itemised and detailed in a control plan that comprised a description and type of the activity to be performed, frequency and method of control by each stakeholder, project requirement and control procedure as well as the acceptance criteria and record reference. For the controls, each stakeholder's intervention point could be a hold point (where no further work could progress without the approval of the stakeholder), review (where documents needed to be submitted for review), witness point (where stakeholders needed to be invited to witness the works) or just a notification point (where stakeholders were just notified of the start of activities). The frequency of these surveillances could involve the inspection of the whole works (100%) or random inspections as detailed in each stakeholder's surveillance plan.

Depending on the criticality of the activity, the Subcontractor employed four levels of inspection comprising 1) self-check by the operator, 2) check carried out by the team supervisor, 3) check done by a suitably qualified quality inspector and 4) check performed by an independent member of the Contractor or Employer team.

There were several levels of control plans, with the amount of detail increasing from the top to the lower level control plans. The top level control plan (Level 1) was a general high-level document which only included contractual commitments. It was the last control plan to be signed off for the majority of the activities prior to the contractual milestones being released. Level 2 comprised building level control plans and included all the high-level activities for each facility. Level 3 comprised phase or activity control plans, for which steelwork was one. The focus of this study is on the Level 3 control plan, which covered the Subcontractor works from design to erection of the steel frame on site.

Although it was clear from the outset that the Subcontractor's overall project controls were carried out in Portugal, there was still a challenge to provide consistency in technical, programme and quality between the two factories and several other Sub-subcontractors. This, coupled with the Subcontractor's lack of nuclear experience, implied that a steep learning curve and significant effort were necessary in order to maintain the required technical quality. For this reason, a significant number of surveillance intervention points were built into the production process and the Subcontractor was required to maintain detailed records (e.g. compliance matrices) anonymous with nuclear projects.

#### 9.2.2.3 Subcontractor approval

The main Contractor was selected through a stringent tender process which, including the competitive dialogue stage, took over 18 months to conclude. An adaptation of the FIDIC "Red Book", combining both re-measurable and lump-sum packages, was the preferred Conditions of Contract. On the contrary, the selection of the Subcontractor was relatively quick and primarily the Contractor's responsibility. Notwithstanding this, the project required that certain Subcontractor details be submitted to the Employer for approval before it could be engaged on the project.

### 9.2.3 Control of equipment

In order to ensure proper functioning of measuring and monitoring devices, the Subcontractor was required to inspect and calibrate all equipment before use. To ascertain the correct functioning of machines, the Subcontractor carried out a validation exercise on supplier documents such as the EC declaration of conformity, maintenance plan, registration verification, insurance policy, operation manual and the statement of good functioning (BS EN ISO 9001). Detailed records of this information were maintained for the Engineer's inspection or audit and submitted as part of the final as-built package.

### 9.2.4 Audit and surveillance

A quality audit plan for the production of steel for Assembly Hall was established by the main Contractor and approved by the Engineer. Furthermore, the Subcontractor had internal audits regulated under its own management procedure.

In addition to these audits, surveillances were carried out on the Subcontractor works by the Contractor, Engineer, Employer and User, managed through the Control Plans described in Section 9.2.2.2 above.

### 9.2.5 Non-conformities

A non-conformity is defined as an anomaly between requirements and the implemented works, which can involve management (services) and/or operational (products, material and equipment) processes. The project controls described above were put in place to detect and correct these non-conformities.

The non-conformities and improvement opportunities could be identified by any stakeholder, including suppliers, during review of documents, factory and site inspections as well as audits and project meetings. In the majority of cases, anomalies occurred during the manufacturing process and so the Contractor or Subcontractor was required to raise a non-conformity report (NCR). The root cause of the non-conformity was analysed, resulting in the identification of corrective (make good the particular problem) and preventative (avoid recurrence) measures that satisfied all stakeholders. This being a nuclear project, it was important that the mitigating measures and responses to non-conformities were carefully thought through in order to maintain the trust of all stakeholders, especially the ASN.

Once identified, the non-conformity was recorded and categorized into one of three classes by a team made up of representatives from each stakeholder. The categorisation depended on the gravity of the non-conformity and considered, among other things, risk of recurrence, programme impact, frequency of occurrence and costs involved. Attention was paid to some non-conformities that appeared insignificant at a particular juncture but could potentially have major impact in a different setting.

Category 3 non-conformities were considered to be major and impacting on requirements such that their resolution involved the User. Category 2 non-conformities were those that affected cost, programme and quality and the Employer involvement was considered pertinent. Category 1 non-conformities were minor and were directly resolved by the Engineer. Whatever the category, the project required all non-conformities to be made available to all stakeholders.

The NCR were employed in the evaluation of performance of each stakeholder and, more importantly, as lessons learned for the continuous improvement of services and products.

## *9.3 Design*

The detailed design of the primary steel structure was carried out by the Engineer and handed over the Contractor to develop the fabrication details. The Engineer was also responsible for maintaining the overall stability of the structure. All the necessary technical reviews and approvals by the User and Employer were already conducted at that stage. Any minor queries raised by the Employer were carried forward and incorporated into the fabrication details by the Subcontractor.

The design of the secondary steel structure (roof purlins and cladding rails) was carried out by the Contractor. Firstly, a review and analysis of the input data (drawings, specifications and reports) provided by the Engineer was performed and requests for information (RFI) were raised by the Contractor where information was missing or needed to be clarified. This was followed by a preliminary design phase where the structural philosophy and construction methodology were established prior to detailed calculations being produced. Following the approval of the detailed design by the Engineer, the Subcontractor proceeded to develop the execution details.

The structural design of steel connections was then performed by the Subcontractor design office in accordance with BS EN 1993-1-8 (bolts and welds). Indeed, there was close collaboration between the design and fabrication teams in order to optimise the connection details. The Subcontractor was also responsible for the design of all temporary works related to the erection of the steel structure. Robot structural software was used for the analysis and design and, where required, complemented or verified by hand calculations. For complex connections, 3D Tekla modelling was employed to check constructability. Drawings and details were produced using 3D Tekla and 2D AutoCAD software. Table 9.2 below includes a full list of IT licences held by the Subcontractor.

**Table 9.2: IT licences held by the Subcontractor**

| Index | Software description | Version |
|---|---|---|
| 1 | MS Access Data | 7 |
| 2 | AutoCAD Building Design Suite Premium Architectural | 5 |
| 3 | AutoCAD Civil 3D 2013 Architectural | 3 |
| 4 | AutoCAD Design Suite Standard 2014 Architectural | 3 |
| 5 | AutoCAD Design Suite Ultimate 2014 Architectural | 1 |
| 6 | AutoCAD LT 2014 Architectural | 150 |
| 7 | AutoCAD Professional 2014 Architectural | 12 |
| 8 | Lantek CAD/CAM/MES/ERP | 5 |
| 9 | MS Project Planning | 58 |
| 10 | Robot Professional 2014 Design | 28 |
| 11 | SAP Management | 198 |
| 12 | Solid Works Detailing | 25 |
| 13 | Tekla Structures Detailing | 72 |
| 14 | MS Visio Flowcharts | 7 |

The deliverables from the design team included a calculation plan (which defined the method and methodology), calculation reports (for the connections) and validation documents (spreadsheets showing manual validation of the calculation reports).

The connections were considered to be part of the execution design and did not need to undergo the Employer's review. Nevertheless, the design was submitted for the Engineer's assessment in order to ensure that the overall structural behaviour was maintained.

Following the Engineer's approval, the production of the execution documentation then commenced. All execution drawings approved by the Engineer were stamped BPE (*Bon Pour Exécution*) by the Contractor and served as reference for all fabrication and erection details.

Finally, the fabrication drawings were produced from the same 3D model but these included more details when compared to the execution drawings. The approved fabrication details were also stamped BPE and, at that stage, automatically linked to the fabrication workshop (CNC machines), logistics department for material reception and project/quality management teams.

In addition to structural calculations being performed in France, Spain, Portugal and the UK and the fabrication details being split between Portugal and Romania, material suppliers came from all over Europe. It was therefore a challenge to ensure that submitted documents were consistent and in an acceptable format. Some software came in specific format, language and version that were not compatible with project requirements.

## *9.4 Material procurement*

Procurement of raw material started with the Subcontractor issuing the relevant technical and contractual documents to several suppliers under a cover of an "intention to purchase" letter. Both the supplier capability to meet project (technical, programme and quality) requirements and cost impact were considered in the evaluation and selection process. This involved the Subcontractor reviewing the suppliers' track record and recent experience on similar works. Supplier references were contacted, facilities inspected, quality records scrutinised, sample test results reviewed, current workload assessed and solvency checked. A number of companies from mainland Europe, China, Turkey and UK were considered before the Subcontractor settled on the list of plate, profile, tube and bolt suppliers shown in Table 9.3 below.

Table 9.3: Approved material suppliers for the Assembly Hall (for Portugal unless noted otherwise)

| Material | Supplier | Location | Comment |
|---|---|---|---|
| Hot rolled plates | Arcelor Factory Olaberria | Olaberria, Spain | |
| | Arcelor Factory Bergara | Bergara, Spain | |
| | Arcelor Factory Zaragoza | Zaragoza, Spain | |
| | Arcelor Factory Belval | Belval, Luxembourg | |
| | Arcelor Factory Verina | Verina de Abajo, Spain | |
| | Makstil | Skopje, Macedonia | |
| | Tecnosider | Giorgio di Nagaro, Italy | |
| | Dillinger Espana | Oviedo, Spain | |
| | Trametal | Genova, Italy | |
| | Ferriera Valsider | Genova, Italy | |
| | Marcegaglia | Ippoliti Mantova, Italy | |
| | Xinyu Iron and Steel | Xinyu City, China | |
| | Nanjing (NISCO) | Liuhe District Nanjing, China | |
| | Arcelormittal Galati | Galati, Romania | For Romania |
| | Stomana Industry | Vladaysko vastanie Str., Bulgaria | For Romania |
| Hot-rolled profiles | Arcelor Factory Olaberria | Olaberria, Spain | |
| | Arcelor Factory Bergara | Bergara, Spain | |
| | Arcelor Factory Zaragoza | Zaragoza, Spain | |
| | Arcelor Factory Belval | Belval, Luxembourg | |
| | Duferdofin | San Zeno Naviglio | |
| Hot-rolled hollow sections | Ferpinta | Val de Cambara | |
| | Arvedi | Cremona, Italy | |
| | Padana Tubi | Guastalla Regio Emilia, Italy | |
| High-strength Preloaded and Non-preloaded bolt assemblies | BAPP Group | Darton, UK | |
| | Cooper & Turner Ltd | Sheffield, UK | |
| | Fontana | Veduggio con colzano, Italy | |
| | Fator | Bacelona, Spain | |
| | Intord | Madrid, Spain | |
| Filler Material | ESAB | France | |
| | Air Liquide | Romania | For Romania |
| Paint | Hempel | Palmela, Portugal | |
| Profile metal deck | Northern Steel Decking | Sheffield, UK | |
| Shear studs | Suministros Dobra | Posada de llanera, Spain | |
| | N'Akron | Sevilla, Spain | |
| | Nelson | Gevelsberg, Germany | |

Once an acceptable list of suppliers conforming to project requirements was established by the Subcontractor, the Engineer's approval was requested as detailed in the Control Plans. The material had to meet all technical requirements specified in the project specifications. Relevant supporting information such as name of the product, origin, destination, certifying board, quality and seismic classifications, health and environmental classifications was also required. The Subcontractor was then free to order from any of the approved suppliers, providing the materials were compatible with requirements. Any variations had to be approved by the client through a formal supplier deviation request.

The first material optimisation exercise performed by the Subcontractor, so as to minimise cutting wastage, was based on the quantities extracted from the 3D model approved at the execution design stage. The Subcontractor produced provisional material plans from which purchase orders were developed. These purchase orders included the material technical specifications. At this stage, the Subcontractor was in a position to order about 80-90% of the required raw materials.

The final order was placed only after the second optimisation was carried out, and this followed the approval of fabrication drawings. The connections constituted about 10-15% of the material and, because they needed more time to finalise, were part of the final order. In addition, there was an Employer conditional acceptance of the primary steelwork design performed by the Engineer, which prevented the crane runway beams to be procured as part of the first order.

A reception guide for the steel material and welding consumables was developed from each purchase order. This guide consisted of all the relevant technical specifications, quantities and sizes for each element from the selected supplier and was the reference document used for the reception of materials in the factory.

The supplier documentation (delivery note, test reports and material certifications) was first checked by the logistics team against the reception guide, followed by a visual inspection (BS EN 1090-2) of about 20% of the materials. Errors in material specifications seldom occurred but they could not be completely ruled out, particularly where material was ordered from stockists.

The mills themselves produced the material certificates in accordance with BS EN 10204 and the steel was graded to BS EN 10025-2 (grade S355). As prescribed by BS EN 1090-2, surface defects were checked against BS EN 10163-2 for hot-rolled plates, BS EN 10163-3 for hot-rolled sections, BS EN 10210-1 for hot-rolled hollow sections and BS EN 10219-1 for cold-rolled hollow sections. The processed but uncoated rust grade steel sections needed not to be heavily pitted than Grade C of BS EN ISO 8501-1.

Welding consumables, which needed to conform to BS EN 1090-2 and BS EN ISO 15609-1, were supplied with certificates produced in accordance with BS EN 1090-2 and BS EN 10204.

Storage of this welding material was required to comply with BS EN 1090-2 and the manufacturers' recommendations.

Similarly, bolt material and test report certification needed to meet the requirements of BS EN 1090-2. Bolt grade 8.8 and 10.9 were used for this project. In accordance with BS EN 14399-1, samples were provided by the supplier for conformity tests such as strength, ductility and dimensional tolerance.

The paints for corrosion and fire protection were ordered by the Subcontractor procurement department and handled as recommended by the suppliers. The supplier certification was in accordance with BS EN ISO 12944-7. Each order, which could contain several types of paint, was assigned a unique component number. Of particular importance was the storage of paint that needed to comply with the product data sheet, BS EN 1090-2 and BS EN ISO 12944-7.

Once accepted by the logistics department, the steel was unloaded from the truck in the presence of the quality team. A random visual inspection of the raw material was then conducted and this included flatness and dimensional tolerances. Each material was marked up with all the relevant identification information (project number, section reference, plate thickness and number, dimensions, steel grade, heat and batch numbers as well as performed tests) using a ball point metal marker. An acceptance of the material was the final sign-off required from the quality team prior to all the paperwork, including the completed checklists, being returned to the logistics department for upload onto the Subcontractor's internal document management system.

Finally, an administrative reception was conducted on the electronic management system and the records completed with additional information that included the purchase order number, certificate number and date, manufacturer identification, applicable standards, unloading location as well as weight, quality and size of material.

Material that was found to be defective was placed in quarantine followed by a non-conformity report being raised by the quality team and the relevant entity (supplier, transporter, etc.) notified. An example is when some plates were supplied without the ultrasonic test certificates; in this instance the plates were detained in the quarantine area until the certificates were received from the supplier. The performance of suppliers was under constant monitoring in order to ensure timely delivery of the materials and avoid delaying the overall project programme.

## 9.5 Fabrication

The fabrication process commenced on 2 June 2014 following the approval of the Subcontractor's manufacturing procedures. Any subsequent versions of these procedures was reviewed accordingly as the works progressed. The fabrication activities were primarily based on BS EN 1090-2, with control sheets produced for each activity in the factory.

All raw material requirements were detailed on a fabrication plan produced by the workshop manager prior to start of works in the factory. The plan also included a list of all the cutting, element, assembly and welding drawings. Below is a brief look at the factories before reviewing, in subsequent subsections, the fabrication activities performed therein.

### 9.5.1 Factories

From the onset, the Subcontractor was considered more than capable of producing and erecting the 5800 tonnes of steel for the Assembly Hall frame. Visits were made to both Subcontractor factories in Portugal and Romania on 21/01/2014 and 03/09/2014 respectively. At the time, the annual steel production capacity was estimated to be 20000 tonnes for the Portugal factory and 11000 tonnes for Romania. These were theoretical figures estimated from recorded man-hours, assuming that simple fabrication (cutting, fabrication and painting) takes 10 – 15 man-hours and complex fabrication takes 15-30 man-hours per tonne of carbon steel.

The Portugal yard comprised two large workshops, the smaller one (Workshop #2) being a 2-bay facility of 80m width by 600m long. Together with the larger 5-bay workshop (Workshop #1), the facility provided approximately 100 000m$^2$ of working space dedicated to carbon steel works. Figure 9.4 below shows Workshop #1 in Portugal.

**Figure 9.4: Photograph of the third bay of Portugal Workshop #1**

The first bay of Workshop #1 was largely a logistics area where all the materials such as the plates brought in from Workshop #2 were stored, ready for fabrication. The second bay housed large CNC cutting machines which incorporated drilling and punching facilities. The third bay was dedicated to assembly and welding and housed numerous welding stations, including large automatic welding machines. All the welding consumables were stored in a nearby (temperature and humidity) controlled room as required by BS EN 1011-1.

Following hard-stamping, the steel components went through a large sand-blasting machine located at one end of the third bay and re-emerged in the fourth bay, where corrosion protection was applied. The unique identification number was still visible when the component left the sand-blasting machine. The opposite end of the fourth bay was linked to the dispatch bay where completed components were loaded onto delivery trucks.

The last bay was used for the fabrication of thin sheet and houses all the cutting and bending machinery for these metalworks (e.g. cladding sheets). Trial assembly of frames and fabrication of small jobs were also handled in this bay. All the apprentice welders were trained in this area before being qualified to work unsupervised in the main welding bays. A paint shop was located at one end of this bay and the dispatch area at the opposite end.

Workshop #2 had the same facilities as Workshop #1 but, in addition, housed all the four modern paint booths on the factory. Also, the laser cutting machine for all plates supplied to both workshops was located in this area. This workshop was more than half a kilometre long with large overheard cranes of up to 40 tonnes capacity. Figure 9.5 below shows the interior of Workshop #2 in Portugal.

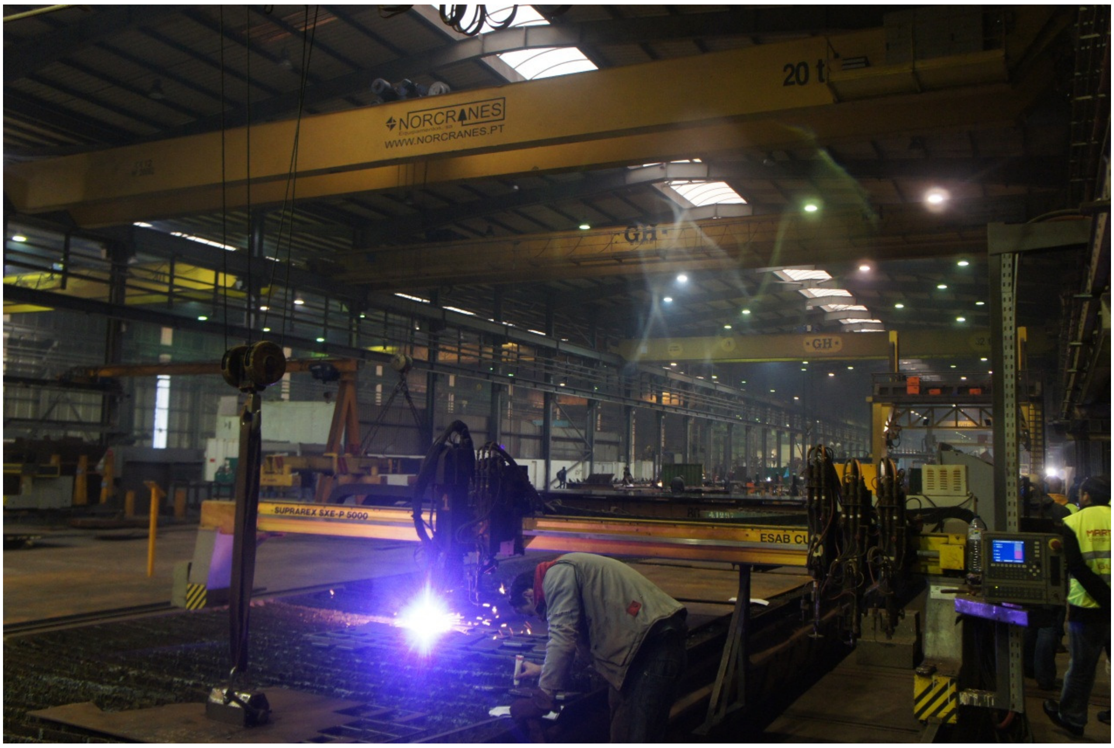



**Figure 9.5: Photograph of the plate cutting machine inside Portugal Workshop #2**

The Romania factory (Workshop #3) was the smallest of the three but it was by no means insignificant. It was a 4-bay workshop with a working area of approximately 15000m$^2$ (about 150m long by 100m wide). It boasted of 41 welding stations, including two large robot machines, and several overhead cranes of capacities of up to 70 tonnes. A photograph of the factory is shown in Figure 9.6 below.

The factories had small storage areas and therefore materials had to be ordered in a timely manner, supported by the just-in-time trading system. Similarly, the finished components had to be delivered to site as soon as it was practically possible.

Figure 9.6: External view photograph of Romania Workshop #3

The following Table 9.4, 9.5 and 9.6 detail the equipment in each of these three factories.

**Table 9.4: Machinery in Portugal [Workshop #1]**

| Index | Type of Machine | Quantity |
|---|---|---|
| 1 | Portable Arc Submerged | 3 |
| 2 | Rolling Machine | 2 |
| 3 | Beveller | 2 |
| 4 | Compressor | 2 |
| 5 | Arc Submerged | 3 |
| 6 | Pickling Chamber | 2 |
| 7 | Stacking machine | 4 |
| 8 | Slotting Machine | 1 |
| 9 | Countersink | 1 |
| 10 | Drill Machine | 1 |
| 11 | Generator | 2 |
| 12 | Shearing Machine | 1 |
| 13 | Lacquering | 1 |
| 14 | Special Lathe | 1 |
| 15 | Cut and Drill | 4 |
| 16 | Stud Welding Machine | 1 |
| 17 | Beam Welding Machine | 1 |
| 18 | Portable Plasma | 1 |
| 19 | Scissors Lift | 1 |
| 20 | Crane Bridge - 2.5T | 7 |
| 21 | Crane Bridge - 10T | 1 |
| 22 | Crane Bridge - 16T | 1 |
| 23 | Crane Bridge - 20T | 3 |
| 24 | Crane Bridge - 25T | 2 |
| 25 | Crane Bridge - 10+10T | 1 |
| 26 | Crane Bridge - 2x 5T | 1 |
| 27 | Crane Bridge - 3.2T | 8 |
| 28 | Crane Bridge - 5T | 6 |
| 29 | Crane Bridge - 6.3 T | 2 |
| 30 | Folding Machine | 3 |
| 31 | Cutting Robot | 1 |
| 32 | Welding Robot | 4 |
| 33 | Welding Machine - ELECTREX | 26 |
| 34 | Welding Machine - ESAB | 4 |
| 35 | Welding Machine - AIR LIQUIDE | 2 |
| 36 | Welding Machine - KEMPPI | 79 |
| 37 | Welding Machine - PRAXAIR | 3 |
| 38 | Saw | 2 |
| 39 | Hand Lathe | 3 |
| 40 | Transfer | 6 |
| 41 | Parbuckle | 2 |

Table 9.5: Machinery in Portugal [Workshop #2]

| Index | Type of Machine | Quantity |
|---|---|---|
| 1 | Drill Sharpener | 1 |
| 2 | Portable Arc Submerged | 2 |
| 3 | Maquina Armação virolas | 1 |
| 4 | Maquina Armação virolas | 1 |
| 5 | Balance Outdoor | 1 |
| 6 | Crane Bridge - 2T | 3 |
| 7 | Painting Cabin | 4 |
| 8 | Rolling Machine | 1 |
| 9 | Machining center | 2 |
| 10 | Column Welding Machine | 1 |
| 11 | Compressor | 2 |
| 12 | Arc Submerged | 11 |
| 13 | Pickling Chamber | 2 |
| 14 | Stacking machine | 5 |
| 15 | Column Drill Machine | 2 |
| 16 | Radial Drill | 1 |
| 17 | Generator | 1 |
| 18 | Shearing Machine | 1 |
| 19 | Magnet 15 TON | 1 |
| 20 | Magnet 14 TON | 1 |
| 21 | Magnet 20 TON | 3 |
| 22 | Magnet 5 TON | 1 |
| 23 | Cut and Drill Line | 1 |
| 24 | Table Alignment | 1 |
| 25 | Metallization Machine | 3 |
| 26 | Oxigen Cutting System | 4 |
| 27 | Scissors Lift | 2 |
| 28 | Crane Bridge | 2 |
| 29 | Crane Bridge - 16T | 1 |
| 30 | Crane Bridge - 32T | 4 |
| 31 | Crane Bridge - 5T | 1 |
| 32 | Crane Bridge - 20T | 2 |
| 33 | Crane Bridge - 16T | 1 |
| 34 | Crane Bridge - 40T | 8 |
| 35 | Beveller x1 | 1 |
| 36 | Straightening Press - 250 T | 1 |
| 37 | Deep Drawing Press | 1 |
| 38 | Punching Machine | 1 |
| 39 | Folding Machine | 1 |
| 40 | Welding Robot | 2 |
| 41 | Dryer | 1 |
| 42 | Welding Machine - KEMPPI | 63 |
| 43 | Welding Machine - ESAB | 11 |
| 44 | Welding Machine - PRAXAIR | 2 |
| 45 | Welding Machine – SAF | 2 |
| 46 | Welding Machine – CEA | 3 |
| 47 | Welding Machine – LINCON | 1 |
| 48 | Welding Machine – KEMPO | 7 |
| 49 | Crane Bridge - 4T | 1 |
| 50 | Crane Bridge - 2T | 1 |
| 51 | Crane Bridge - 32 T | 2 |
| 52 | Crane Bridge - 40T | 1 |
| 53 | Crane Bridge - 25T | 1 |
| 54 | Dryer | 1 |
| 55 | Saw | 1 |
| 56 | Transfer | 7 |

Table 9.6: Machinery in Romania [Workshop #3]

| Index | Type of Machine | Quantity |
|---|---|---|
| 1 | Oxygen Cutting System | 2 |
| 2 | Drill Machine | 1 |
| 3 | Shearing Machine | 1 |
| 4 | Punching Machine | 1 |
| 5 | Saw | 3 |
| 6 | Welding Machine | 41 |
| 7 | Arc Submerged | 8 |
| 8 | Crane Bridge - 25T | 1 |
| 9 | Crane Bridge -  5T | 2 |
| 10 | Crane Bridge - 10T | 4 |
| 11 | Crane Bridge - 40T | 1 |
| 12 | Crane Bridge - 70T | 1 |
| 13 | Crane Bridge - 20T | 1 |
| 14 | Crane Bridge 10+10T | 1 |

### 9.5.2 Cutting, assembly and welding

These three activities occurred in succession and always in this order: cutting, assembly and then welding.  Notwithstanding this, the lower level plate girder columns needed to go through this process twice as the constituent plate elements were not long enough.

Technically, welding was the most complex of the three activities.  As required by BS EN 1090-2, the welding workstations in the factory and on site were adequately protected against extreme weather conditions such as rain, wind, temperature.

Each factory had a welding engineer qualified to meet the requirements of BS EN 1090-2 and BS EN ISO 14731.  The welder and welding operator needed to periodically (every 2 years) demonstrate their capabilities to an independent certifier in accordance with BS EN ISO 9606-1 and BS EN ISO 14732.  Depending on the level of qualification being sought, the validation could be carried out by an internal or external examiner.

As only arc-welding was permitted on this project, the specification of the welding procedure was based on BS EN ISO 15609-1.  The welding process was managed to BS EN ISO 3834-2 whilst geometrical checks on welded profiles were performed in accordance with BS EN 1090-2.  Furthermore, non-destructive testing (NDT) was implemented through visual inspections (BS EN ISO 5817, BS EN ISO 17637, BS EN 1090-2), dye penetration test (BS EN ISO 3452-1), magnetic test (BS EN ISO 17638, BS EN ISO 23278), ultrasonic test (BS EN ISO

17640, BS EN ISO 11666, BS EN ISO 23279) and radiographic test (BS EN ISO 17636-1 and BS EN ISO 17636-2).

For clarity, the following subsections discuss these fabrication activities of cutting, assembly and welding for each different component separately.

#### 9.5.2.1 Plate girder columns

The columns comprised plate girders, meaning that plates were welded together in the workshop to form the desired steel profile. Each column was manufactured in five levels of 14.82m, 9.90m, 11.90m, 11.90m and 9.21m high that were then spliced together on site. The heaviest of the column pieces weighed in excess of 30 tonnes, which was considered as exceptional load in terms of road haulage.

The plates came in maximum lengths of 12m, a function of the 10 tonnes maximum lifting capacity of the steel mill. For instance, a 50mm thick plate would come in dimensions of about 12m long by 2m wide in order to remain within this weight limit (the density of carbon steel being 7850 kg/m$^3$). This was long enough for the upper column levels but the lowest level (14.82m high) needed two plates to be butt-welded together before being fabricated into a profiled section.

The plate and heat numbers were recorded onto the cutting order as the material was delivered to the cutting sector. Following the material being cut to length using the CNC machine, the oxicut machine was employed to prepare the welding joints. The joint surface was then cleaned up by a grinder before being assessed by a quality inspector. Once approved, the pieces were handed over to the assembly team.

The assembly of the plate was carried out using the submerged arc welding (SAW) machine. The elements were held together by tack welding and checked for alignment, square and flatness by the quality team prior to being handed over to the welding team, where the two elements were then fully welded together. The reference numbers of the constituent elements and the welds were marked up on the resultant component using a ball point metal marker. The welds were then tested in accordance with the specification.

With the plate now to the correct length, it was sent back to the cutting sector for the fabrication of the profiled section to begin in earnest. Thus, the process described below applied to all the five column levels. The plate sizes to be cut into the constituent flanges and webs were detailed on the element drawings included in the cutting plans. Figure 9.7 below shows the cross sections of the outer (for non-braced and braced bays) and inner columns.

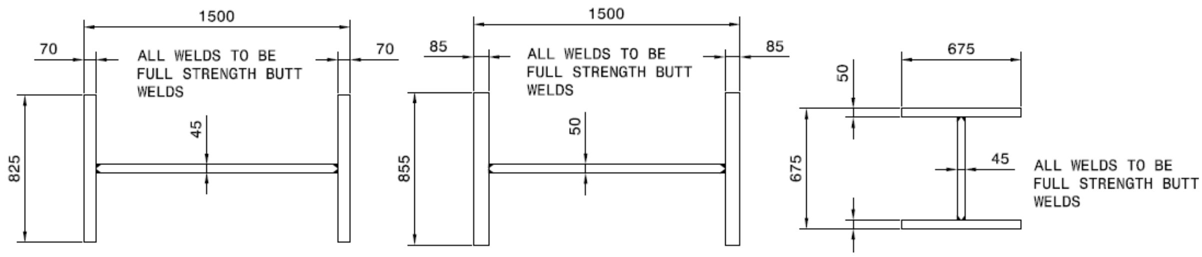



**Figure 9.7: Cross sections of outer non-braced, outer braced and inner columns (by Engineer)**

The heat and plate numbers were noted down onto the cutting order before the plate was cut using an oxicut machine. A dimensional check was performed by the operator before the material was removed from the cutting table. All materials were then marked up with the reference numbers as defined in the cutting plan.

Subsequently, the bolt holes were drilled on the flange elements using the automatic drilling machine and in accordance with the specifications and tolerances shown on the drawings. The positions of all the connection holes were marked up on the plate before the drilling commenced. Care was taken to ensure that the holes were the right size, in the correct location and perpendicular to the plane of the flange in order to avoid defects. Dimensional checks were carried out, in accordance with BS EN 1090-2, before the plate elements were freed to leave the drilling machine.

As specified on the workshop drawings, the web plate was then prepared for welding to the flanges. This comprised cutting v-shaped chamfers to the edges of the plate using an automatic oxicut machine before grinding off the blemishes. Any dirt and waxes on the flange joint areas were also grinded off before assembly.

The assembly drawings showed all the constituent elements of the columns, which the operator collected from the cutting storage area. These elements were assembled, squared and tack-welded together to maintain alignment. The web was aligned with one flange first and the joint pre-heated before the tack welding. The second flange was then assembled, ensuring alignment of the drilled holes on both flanges prior to tack welding. In order to avoid the plate girder being damaged in this fragile temporary state, extreme care was taken when the column was rotated to allow tack welding on the other side. A final quality check (dimensions, fit and references) was carried out before the assembled component was allocated a new reference number, which was marked up using a ball point metal marker.

The component was handed over to the welding team, whose first task was to ensure that all the surfaces were dry and free from foreign matter because blemishes such as rust or organic material are detrimental to the quality of the weld. The batch number of the consumables that were to be used was also checked and registered. Following pre-heating of the joint, the component was then fully welded together by certified operators using a submerged arc welding machine. For these large components, an automatic welding machine was employed whenever possible. The identification number of the joint was hard-stamped at the end of the welding process. The joints were eventually checked by both the welding supervisor and the quality inspector.

The splice holes on the web were drilled in the same manner as the flanges but this was done only after the plate girder had been assembled and fully welded together in order to ensure alignment of the holes. The difficulty associated with handling such large components resulted in the web holes being manually drilled instead of using the automatic drilling machine.

A final dimensional check was carried out on the component before the addition of connecting plates and stiffeners. The approval records up to this stage were shared with the planning team and the electronic document management system was updated with this information.

Now that the component was fully welded and drilled, the joint preparation for connecting members commenced. This work involved the welding of stiffeners and bracing connection plates and, for the lowest column level, base plates and shear keys.

The operator first gathered the constituent plate elements from the holding area. All the joints were prepared for welding using the automatic oxicut machine and the surface cleaned with a grinder. Following the approval of the quality inspector, the elements were then assembled, aligned and tack-welded together.

For the Level 1 component, the base plate was first connected to the plate girder by tack welding before the stiffeners and bracing connecting plates were added. Temporary stiffening plates were then tack-welded to the baseplate to ensure alignment and avoid warping. These temporary stiffeners were only removed after all the base plate, stiffeners and bracing plate connections were fully welded together using semi-automatic welding machines. The shear key, together with its stiffeners, was the final piece to be welded to the bottom of the baseplate. Each of the welds was hard-stamped with a unique identification number as the works progressed. Dimensions, alignment and reference locations were checked by both the operator and quality inspector prior to hard-stamping. These durable markings were located where they could be identified during erection.

One of the onerous requirements of the project was to ensure full contact of steel at column splices. In order to guarantee this, all columns were manufactured 5mm (for lower and top levels) and 10mm (for intermediate levels) longer, with the extra length cut off to precision on the grinding machine. The column was laid horizontally and level on the machine table and the excess length of material to be removed measured and marked up prior to the commencement of the intricate machining process. The finished surface was subject to approvals by the operator and quality inspector, ensuring that the final dimensions were within specified tolerances.

At this stage, the component was ready for sand-blasting as detailed in Section 9.6 but the fabrication of the other components shall be discussed first.

#### 9.5.2.2 Plate girder runway beams

There were two sets of runway beams for 50 and 750 tonnes overhead cranes. The main purpose of these cranes was to facilitate the pre-assembly of the Tokamak equipment in the Assembly Hall and to lift the assembled parts for their final installation in the Tokamak Complex.

The runway beams for the 750 tonnes crane were 2.0m deep each but tapered to 1.78m at support locations. With column spacing at 9.3m, the beam came in segments of 9.29m long and weighed about 19 tonnes each. The cranes ran between the Assembly Hall and the Tokamak Complex, connected by a shorter, 4.25m long runway beam. This short beam was provided as part of the Tokamak structure with an expansion joint provided at the interface with the Assembly Hall.

The 750 tonne runway beams sat on custom-made bearings that were connected to the top of the inner columns. Each beam segment was laterally and longitudinally restrained at one end of the bottom flange and only laterally restrained at the other end, leaving it free to expand along its axis. Due to the weight of the crane, there were no resultant uplift forces and hence no need to restrain the vertical movement at the bearing locations. To prevent excessive lateral movement, the top flange of each runway beam was restrained at column and three other equally-spaced intermediate locations by a double pin connection fitted with eccentric bushes.

A similar support arrangement was provided for the 50 tonne runway beams. However, owing to the fact that uplift could be experienced by these lighter beams, the support bearings were designed to prevent vertical displacement. The beams were 1.0m deep but reduced to 0.92m at support locations and these components came in 9.29m segments weighing about 4.7 tonnes each. The top flange of each runway beam was laterally restrained at column locations only.

In principle, the fabrication process for these runway beams was similar to that of the columns as described above. Thus, the plates were cut to length, assembled and then fully welded before the stiffeners were added. However, the fabrication was complicated by the closely spaced stiffeners placed along the whole length of the beam and the need to kink the ends of the bottom flange in order to form the reduced beam depth at support locations.

#### 9.5.2.3 Beams and bracing

The manufacturing process and quality control methodology described in Section 9.5.2.1 above was also followed for the beam and bracing elements. Thus, the manufacture of these beams and bracings from hot-rolled profiles and tubes is therefore discussed in brief, focusing only on areas not covered already. In this context, beams refer to steel elements that are largely in bending and bracing to those members mainly exerted to axial loads (tension or compression). Plates were only added to facilitate connections.

Roof trusses are indirectly covered by this section as they comprised beam (bottom and top chords) and bracing (verticals and diagonals) members connected together by structural bolts or welding. Secondary steel is also covered by this section as it consisted of rolled steelwork forming the side rails, roof purlins, walkways, stairs and trimmers to openings. Thus, secondary steel is all structural elements other than the primary frame (i.e. column, beams, trusses and bracing).

The beams and bracing were manufactured from hot-rolled sections, meaning that the elements were already in their final shape and profile when delivered from the steel mills. Thus, the stages described in Section 9.5.2.1 above of welding plates into girders were not applicable for beams and bracing members. Another added advantage was that these rolled profile and tube elements are relatively light in weight and could be delivered in lengths of up to 22m, restricted only by what a standard road truck could carry without needing a special permit.

The cutting of elements to required lengths followed the method described in Section 9.5.2.1 above. While columns involved very thick plates, the thicknesses of the profiles and tubes used for beams and bracing were less than 30mm. A mitre band saw machine was used to cut the profiles into required lengths whilst a plasma cutting machine was used for the tubes. For connecting plates and stiffeners of less than 30mm thickness, the cutting was done using a plasma machine, otherwise an oxicut machine was employed. Unlike the steel plates which needed both the plate and heat numbers to be marked up, only the heat number was needed for the profiled sections and tubes.

Drilling of holes, assembly of connection plates and stiffeners, preheating, quality controls and hard-stamping processes were similar to those described in Section 9.5.2.1 above, all in accordance with BS EN 1090-2.

## *9.6 Protection*

After fabrication, the component was ready for corrosion protection in accordance with BS EN ISO 12944-1. The external environment was classified as C3 (industrial atmosphere), internal as C2 (low pollution) and durability as High (greater than 15 years to first maintenance) in accordance with BS EN ISO 12944-2.

The component was rinsed to remove all dirt and waxes, first by a suitable degreasing agent and then using fresh water (BS EN 1090-2, BS EN ISO 8504-1). The steel component was then ready for sand-blasting.

### 9.6.1 Blasting

Workshop #1 consisted of a centrifugal blasting machine with 8 turbines that used a mixture of grit and shot abrasives whereas Workshop #2 comprised two large (40m long by 7m wide by 6m high) manual blasting cabinets with four 200-litre blasting pots each that used grit abrasive. Workshop #3 had one blasting cabinet similar to those found in Workshop #2. The substrate preparation by these machines conformed to BS EN ISO 8504-2.

In accordance with BS EN ISO 8501-1, the cleanliness of the original steel surface had to be no worse than Grade C (rusting that can be scraped off with slight pitting) before it was blasted to Grade Sa2½ (contamination traces only as spots). The air temperature had to be above 0°C and relative humidity less than 85%. In addition, the surface temperature had to be above the dew point and between 3°C and 40°C. Following blasting, all the welds were inspected to ensure the absence of surface imperfections such as undercuts, sharp edges, rust and slag, as required by BS EN ISO 8503-2. The resultant surface roughness of the substrate (BS EN ISO 12944-7) had to be compatible with the paint treatment described in Section 9.6.2 below, which had to be applied within 4 hours of sand-blasting.

### 9.6.2 Corrosion and fire protection

Corrosion protection was provided in the form of paint (BS EN ISO 12944-5) and had to be compatible with intumescent paint for fire protection, whether this was applied in the workshop or on site. The allowable dry film thickness (dft) of each layer of the corrosion protection was limited to 100μm in accordance with BS EN ISO 2808. In addition to complying with these standards and the project specifications, the Subcontractor had to factor in appropriate temporary corrosion protection needed for prolonged exposure during storage in the workshop, transportation, storage on site and initial exposure on site prior to the building being made weather-tight. None of the steel on site was hot dip galvanized.

For the preloaded connections, the following system was applied to the contact surfaces between plates in order to maintain the required grip:

- One application of 50µm grey metal Hempel Galvosil primer 15700.

Where intumescent paint was specified from the outset (to meet the 2-hour fire resistance required by the project), the following paint system was applied in the workshop in accordance with BS EN 1993-1-1 and BS EN 13381-4:

- First layer of 80µm grey Hempadur primer 17410;
- Second layer of varied thicknesses of up to 3000µm of off-white Hempacore One fire protection 43600;
- Final layer of 40µm white Hempadur topcoat 155210.

However, fire optimisation studies were still underway when the fabrication of steel commenced in the factory. Therefore, the following protection system was applied to the rest of the steelwork in the workshop, with the top coat being compatible with intumescent paint or vermiculite to be applied on site if required:

- First layer of 75µm grey Hempadur primer 17410;
- Second layer of 75µm off-white Hempadur primer 17410.

Only required quantities of painting were prepared at any particular juncture. The paints were first stirred adequately in a well-ventilated and dust-free environment. Leaking, out-of-date and gelled paints were considered unfit for use and were discarded. Nominal beads that may have developed during storage were removed before stirring. Extra care was taken when the 2-part epoxy paint systems were mixed together and other components such as thinners were added in order to achieve the correct mix ratios and dilution. Power stirring was employed to achieve uniform viscosity, dispersion and colour when large quantities (more than 5 litres) were required. When only a small amount of paint was necessary, hand mixing was employed but extra precautions were taken to ensure uniform dilution.

Prior to spray-painting of the steel using airless guns, all inaccessible and intricate areas such as bolts, welds and edges were painted using a hand brush to ensure adequate protection. The enclosed spray painting booths had controlled atmospheric temperature of 30°C and relative humidity of less than 85%. As for sand-blasting, the material surface temperature had to be above the dew point and between 3°C and 40°C.

Precautions were taken to ensure that the minimum curing and maximum re-application periods of each paint layer were observed so as to maintain intercoat adhesion. Indeed, these periods varied as specified on the paint technical data sheets, depending on prevailing environmental conditions. Each painted surface needed to be free of dust and other foreign matters prior to the application of the next layer.

After the application of the final layer, the steel remained in the controlled booth for roughly 6 hours, depending on the paint specifications, before being transferred to a weather-tight environment for an additional drying time of around 18 hours. The component's unique identity number was left exposed.

The painted surface needed to be uniform and devoid of cracks, bubbles, craters, drops and stains when dry. During quality inspections, both the wet and dry film thickness (BS EN ISO 2808, ISO 19840) of each layer were measured. In addition, the recorded information included the paint specification, surface preparation, level of blast-cleaning, surface roughness and environmental conditions. All accepted works were annotated accordingly using sticky tape.

A decision was taken to apply intumescent paint to the vertical column elements and to use vermiculite for the horizontal roof elements. Conforming to BS EN 1090-2 and the required 2-hour fire resistance, the vermiculite application comprised Perlifoc mortar applied over Nervometal metallic mesh and finished off with 40 µm Revosil RAL 9010 top coat. The thickness of the mortar varied between 24 -31mm and the application was limited to the roof trusses and braced bay between axis 13.J and 13.K.

### 9.6.3 Paint touch up

Any painted surface that did not meet the acceptable quality level in the first place had to be repaired. Damage to protection also occurred through handling of the material in the workshop, in transit and on site. Where defects were detected in the workshop, the material was cleaned by a power tool and the required painting system re-applied to the damaged areas without much hassle.

Unfortunately, most damage to the protection systems occurred during expedition and handling on site. The damage was prevalent on intumescent painted components that, due to the paint thicknesses involved, needed several months to fully dry out. This was time that the construction programme could not accommodate. Consequently, the reparation had to be carried out in the uncontrolled conditions of temporary holding areas on site or in the permanent erected state of the steel component. In addition to the same environmental conditions mentioned in Section 9.6.2 above being observed, it was important that changes to atmospheric conditions be anticipated for at least 4 hours from the start of the paint application.

On a few occasions that large damaged areas of paint occurred on a steel component together with other significant defects, the Subcontractor opted to return the element to the factory for more comprehensive repairs. Owing to the long distances between the two factories and site, this decision was limited to the absolute minimum in order to keep costs under control and maintain construction progress on site.

The damaged surfaces were rinsed with a degreasing agent to free them of waxes and dirt before being sand down by hand or, where possible, using a power tool. The required painting system was then applied again to the damaged areas by hand, using a brush or a roller for relatively larger surfaces.

The prepared surfaces were inspected before and after paint application, as well as between paint layers, to ensure adhesion. Random measurements of wet film thicknesses were taken and these formed part of the quality records that also included the paint specification, surface preparation, surface roughness and environmental conditions.

Although paints held on site were stored in relatively good conditions and away from direct light, these were only kept for a maximum of one month owing to lack of total control of the storage environment.

## 9.7 Expedition

This section discusses the process involved in handling and transporting the processed steel components from the workshop to site.

The lifting points and method statements required for the handling of finished components during delivery and on site were developed by the Subcontractor design team. The fabrication team was responsible for the correct application of the lifting methods and explanation of the method statement to the delivery team. This was an iterative process in order to ensure a consistent approach across all Subcontractor teams, from the design office through to erection on site.

### 9.7.1 Loading in the workshop

The fabrication team was responsible for the handling and storage of material in the workshop. Precautions taken to ensure proper storage and avoid permanent damage included the use of spreader beams to keep components clear off the ground. This kept the components clean and avoided the accumulation of water. The Subcontractor employed just-in-time electronic trading system, which minimised the amount of time that finished components needed to be stored away. When the components were ready for shipment, quality inspections were performed to verify that no material deterioration had occurred during temporary storage. When found to be in an acceptable condition, the material was handed over to the transport department for despatch to site.

Packing, handling and delivery precautions were taken by the transport department in order to minimise surface scratches or permanent damage in transit. Essentially, this was achieved just by following the approved method statements. The preventive measures included protecting components at lifting points and employing lifting lugs, claws and spreader beams. Rubber, wood or steel tube spacers were placed between stacked components. Lightweight components that were prone to damage, if handled in isolation, were bundling together before being lifted. Protection was used to avoid damage during tightening of the truck load. The material was handled and loaded into the delivery trucks using forklifts and overhead cranes, with small packets such as bolts loaded by hand.

Particular attention was paid to the heavy plate girder columns and crane runway beams. The use of suitably detailed lifting points and lugs was imperative for these extraordinarily heavy components. Furthermore, the employed temporary lifting methodology needed to take the permanent stability of the components into consideration. To avoid double handling, the works schedule was planned in such a way that erection of heavy components occurred as soon as they arrived on site. In reality, this plan was difficult to maintain due to other complications such as non-conforming components. A delay on one column meant that subsequent components had to be temporarily stored until the problems were solved.

The fabrication team prepared an inventory of material to be included in each load. This despatch plan identified the material references, quantities, dimensions and weights to be transported. The plan also identified the storage area of the material in the workshop, its destination and scheduled date of loading. Precautions were taken to avoid mixing heavy and lighter parts that could lead to deficient stacking.

### *9.7.2* Transportation

The steel was transported from Portugal and Romania to the French site in over 300 truckloads, which included 66 exceptional loads. Fortunately, there was no need for police or private escort in all the countries involved as the abnormal loads were only in weight but within the dimensional limits of 24.0m long by 3.0m wide loads (EC, 1996). The rest of the deliveries were less than 25 tonnes in weight and therefore considered as normal loads.

Considering the delivery of columns from Romania factory, for instance, this involved 11 outer and 11 inner columns comprising 5 and 4 levels of components respectively. Generally, the weight of the pieces was such that a truck could only carry one outer or two inner column components at a time. In theory, this worked out to 55 and 22 truckloads for the outer and inner columns respectively but in reality, these were rationalised to a total of 73 deliveries.

In order to respect the restrictions imposed by the various countries along the way (Romania, Serbia, Croatia, Slovenia, Italy and France), 5 business days were planned for the lorries to travel the 2300 km between the Romania factory and site. At 1500 km, the distance from Portugal to site via Spain was significantly shorter but not so much in terms of time.

In France, no haulage truck was allowed to travel on public roads during weekends and bank holidays. There are several French bank holidays in May, which often result in a 4-day working week for the whole month. The month of August, and July to some extent, are not as productive as the other months because a significant number of companies shut down operations for maintenance and to allow the workforce to take summer vacations. These were some of the challenges that needed to be factored into the logistics of delivering steel to site.

The transportation of the material to site was sublet to various road haulage companies. Although it made good business sense for these hauliers to arrange for return freight on the way back to the Subcontractor yard (thereby being more sustainable by avoiding empty return trips), this was not an easy proposition owing to the cross-border movements and national trade restrictions. It is also important to note that the Subcontractor did not have any control over the overall business of the haulage companies.

### 9.7.3 Unloading on site

As the site was shared between several contractors, it was consequently a challenge to dedicate suitable access and guarantee its availability to the Subcontractor in a timely manner. There were open galleries around the Assembly Hall, in the ideal locations for positioning mobile cranes, off-loading of material and temporary storage. The concrete raft slab itself was incomplete, with large unfilled pockets (commonly referred to on site as box-outs) that not only impeded on the smooth movement of cranes but also affected the temporary stability of the steel frame.

Prior to any material being unloaded from the trucks, visual inspection of the delivery was carried out to ensure that the material was not damaged in transit and that it was safe for the operatives to start the unloading process. Photographic records of the delivery were also taken before unloading.

Based on the information included on the packing list such as element sizes and weights, the transportation team decided on the equipment to be used for unloading of the material from the flat bed. The available equipment on site included crawler cranes, automobile cranes and telescopic forklifts.

The unloading process on site was essentially the reverse of the loading process in the factory. All the precautions described in Section 9.7.1 above also needed to be observed for the unloading process. The heavy plate girder columns and crane runway beams needed particular attention as was taken for the loading process in the workshop. The details and condition of the unloaded components were then checked against the inventory delivered with the shipment. Figure 9.8 below outlines the unloading sequence of heavy elements.

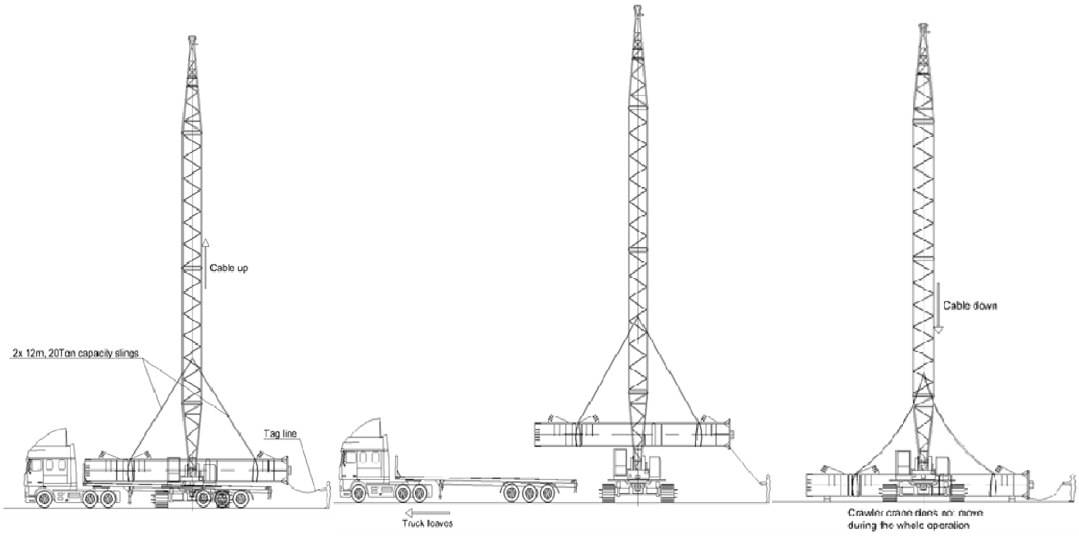



Figure 9.8: Sequence followed in unloading of heavy elements (by Subcontractor)

### 9.7.4 Temporary storage on site

Temporary storage areas were planned to be as close to the final position of the components as possible in order to minimise the movement of materials on site. This reduced the probability of damaging the material on site as well as the health and safety (H&S) risks on the workforce. Where the temporary storage area was not close enough to the permanent location, material movement was carried out on a flatbed lorry.

Deliveries and the erection processes were arranged in such a manner that the temporary storage of materials on site was minimal before permanent installation. For example, it took one day to erect one column level on site and as such deliveries were arranged in a manner that at least one truck left the workshop each day. Furthermore, each column component needed to leave the workshop 5 days before its scheduled erection date in order to arrive on site in time.  Indeed, the fabrication of the columns was in the order that the components were going to be erected on site.

Where temporary storage could not be avoided, precautions were taken to ensure proper storage and avoid damage on site.  These precautions included storing the material in a dry area, keeping it clear off the ground by use of timber spreaders, separating different components with spacers and avoiding workforce from stepping over the material.

The working and storage areas were cleaned on a daily basis to remove fire and trip hazards thereby maintaining a tidy and safe working environment.  Access lighting was provided where necessary, over and above that required for the day-to-day operation of the site works.

## *9.8 Erection*

This section describes the step-by-step methodology employed for the erection of the steel frame on site, taking cognisance of temporary stability issues. The Subcontractor carried out all the erection works except for the pre-assembly of the roof at ground level, application of vermiculite fire protection and the hydraulic lifting of the roof.  Whereas the vermiculite and heavy lifting activities were sublet to speciality contractors, the pre-assembly of the roof was only subcontracted as a measure to recover progress on site.  The erection of the crane gantry beams (the elements that support the crane beams and rails) was part of this contract but the installation of the crane beams themselves and their supporting rails were covered by a separate contract.

### 9.8.1 Introduction

The erection phase was managed by the Subcontractor's construction manager (overall responsibility), foreman (responsible for the execution of the works), site managers (responsible for managing and coordination of various trades) and the safety manager (responsible for the control plan and safe working procedures), all in accordance with BS EN 1090-2 requirements.  As part of its methodology analysis, the Subcontractor performed a H&S risk assessment for each activity prior to commencement of any works on site.

Ideally, a completed concrete base slab capable of supporting up to 250 $kN/m^2$ pressure was required for a safe and cost-effective erection process. A 22m wide well-compacted and level platform capable of supporting up to 450 $kN/m^2$ pressure, together with suitable temporary ramps, was also required around the building perimeter. This was required for cranes and Mobile Elevating Work Platforms (MEWP) used for the erection of the steel frame, assembly and dismantling of temporary structures as well as unloading of components brought over from the temporary storage area. Equally, suitable road access was required between the building and the temporary storage area.

In reality, there were several large openings on the concrete raft slab which could not be completed on time by the enabling works contract due to lack of design input data. This work was eventually instructed to the Contractor but not until it had already impacted on the steel erection methodology and schedule. Outside the building footprint, there were several incomplete concrete tunnel structures and staircases that impeded on crane location and access. Furthermore, two tower cranes already existed in the vicinity of the building but these did not have the capacity required for the steel erection. As a consequence of all these constraints, a larger (than would have been necessary) crawler crane was used for the steelwork erection, working on a reduced 16m wide access platform around the building.

The Contractor and a number of other contracts were already established on site when the Subcontractor took possession of the Assembly Hall area. Thus, typical mobilisation activities such as establishing an electrical power supply, changing rooms and sanitary facilities were already completed.

Owing to the heavy steelwork loads involved, co-activities and interaction with other contractors needed to be minimised for H&S reasons. Indeed, the building interior space and a 20m wide zone around the building perimeter were established as no-go areas during the roof lifting and other potentially dangerous operations. Consequently the works needed to be closely monitored by the Contractor, with designated resources instructed to stop the works if necessary.

## 9.8.2 Erection parts

The Assembly Hall structure has already been introduced in Section 9.1.1 but a few details are repeated here to put the erection process into perspective. The East (gridline 13.4) and West (gridline 13.1) façades comprised 10 bays named Zone A to J as shown on the elevation in Figure 9.9 below. Erection started from the South (Zone J) end, with the permanent cross bracing in Zones B and C providing stability in the temporary state. Although it was initially intended to install all the columns on one level at once, the erection of the columns on axis 13.K lagged behind due to the temporary barrier details not being fixed in time.

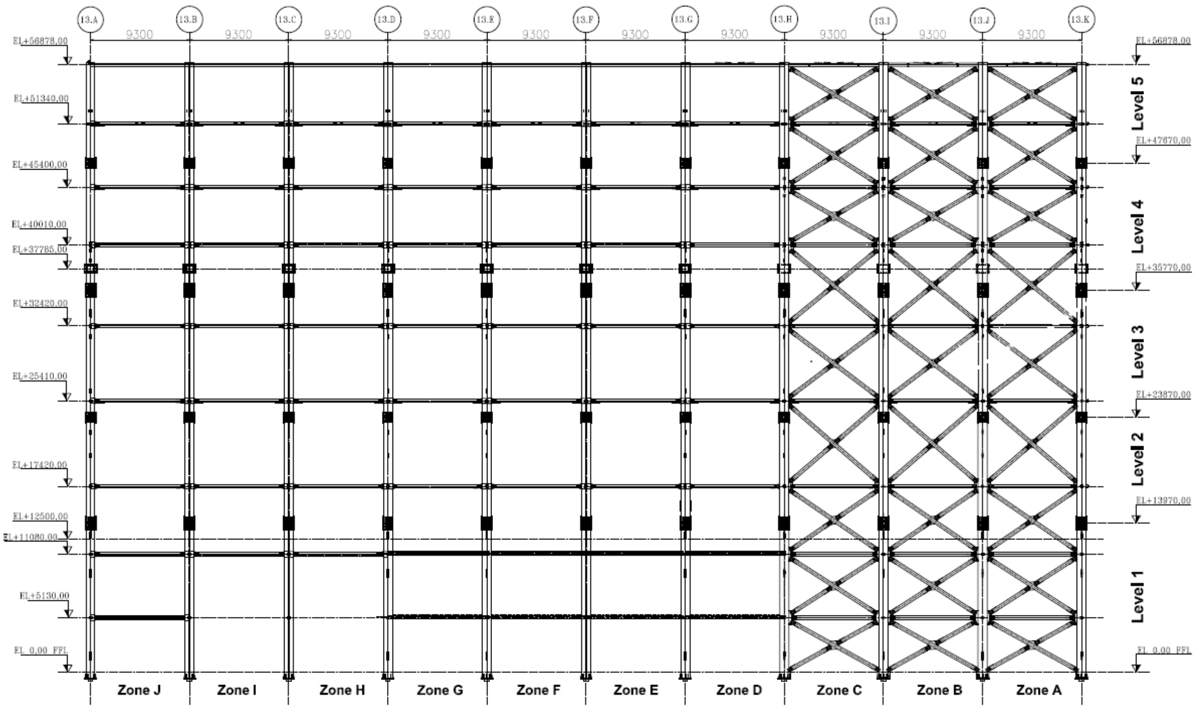



Figure 9.9: East elevation of the Assembly Hall steel frame (by Subcontractor)

A typical cross section of the steel frame is shown on Figure 9.10 below. The Finished Floor Level (FFL) of the concrete slab was at +0.00 as indicated on the section. Each column was erected in five sections and these are indicated as Level 1 to 5 in Figure 9.10. A column level comprised both plate girder columns; the inner on gridlines 13.2 or 13.3 (which extended up to the crane runway beam level) and outer on gridlines 13.1 or 13.4 (which extended all the way to the roof). Indeed, all elements within the thick rectangular boxes annotated in Figure 9.10, including parts of the roof truss, several horizontal trusses at crane beam levels and bracing were considered as columns for the purposes of the erection process described below. The full height of the outer column was nearly 60m and came in 5 pieces of approximately 15m, 10m, 12m, 12m and 10m. The installation of the columns is discussed in detail in Section 9.8.3.2 below.

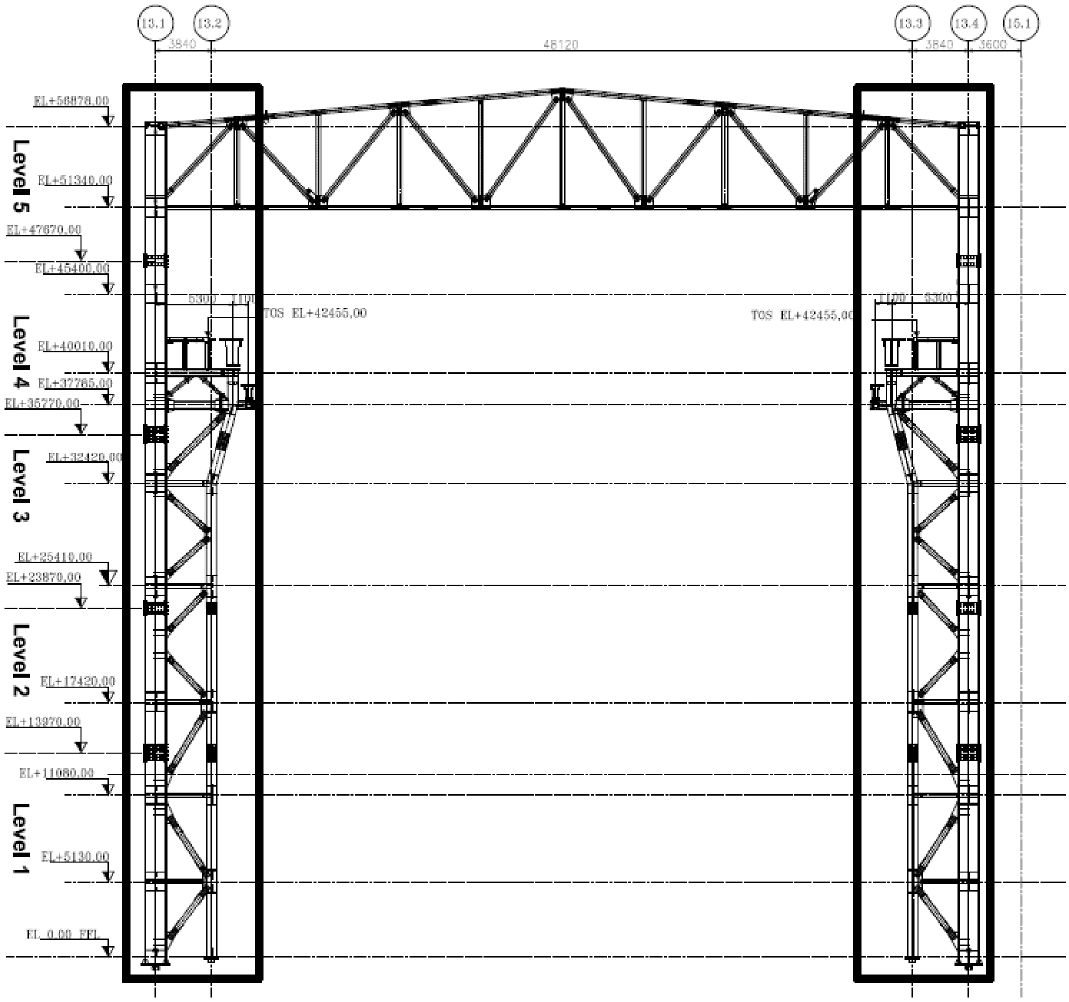



Figure 9.10 Typical cross section of the Assembly Hall steel frame (by Subcontractor)

The remaining part of the frame in Figure 9.10 (elements outside the thick rectangular boxes) was considered as the roof and is discussed in Section 9.8.3.3. The installation of the gantry beams is covered in Section 9.8.3.4 whilst the erection of the South and North gable structural frames is detailed in Section 9.8.3.5 and 9.8.3.6 respectively. Although this research is focused on the primary structure, the installation of secondary steelwork and the composite metal decking floor is briefly discussed in Sections 9.8.3.7 and 9.8.3.8 as some elements such as roof purlins were installed at the same time as the primary structure. Transversal activities such as topographical survey and bolt tightening are discussed later in Section 9.8.4.

### 9.8.3 Sequence of erection

A number of frame erection studies were carried out by the Subcontractor at the beginning of the works, with cranes operating from both inside and outside of the Assembly Hall footprint. The preferred method was for the erection of the columns to be carried out from the outside thereby freeing the inside space for an early start of roof pre-assembly at ground level. This option provided relatively larger area for movement of heavy equipment such as mobile cranes and reduced the risk of damaging the existing concrete raft slab. Starting with grouting of the base plates, the following subsections describe the erection sequence of the different parts of the frame as defined above.

#### 9.8.3.1 Grouting

Prior to fabrication, the Subcontractor was required to carry out a survey of the finished concrete slab, built in a different enabling works contract. Sleeved holding down (HD) bolts for the steel frame were already cast in place as part of these early works. Recesses of 625mm deep for the outer column and 200mm for the inner column were provided to allow the baseplate, stiffeners and bolts to be fully covered up by second-stage concreting and completed flash with the FFL. Additional 250mm deep recesses were provided for the shear key below the baseplate as shown in Figure 9.11 below.

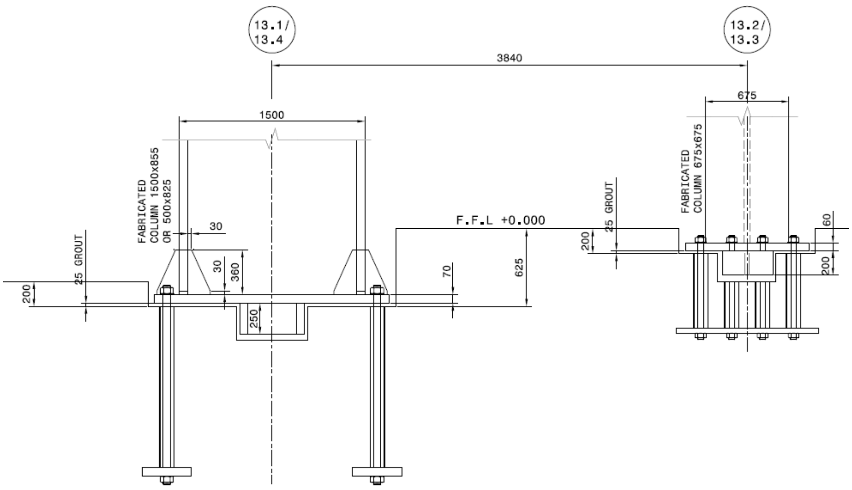



Figure 9.11 Cross section showing recesses for outer (13.1/13.4) and inner (13.2/13.3) columns (by Engineer)

The grouting of the baseplates was performed in two stages, the first being carried out before the column was erected. This comprised 5-10mm of non-shrink grout to ensure a level surface under the column baseplate and thereby improve temporary stability of the frame. The sleeves were plugged off to avoid them being filled up at this stage. Small transparent tubes were then placed in each sleeve and shear key to allow dewatering after column installation.

The second stage grouting was done after the first level columns were erected, braced, plumbed and aligned. A self-levelling grout was used under the baseplate, which facilitated the use of shims during the column erection. The grouting progressed one column at a time with each elevation treated independently. In addition to grouting up the sleeves and the shear keys, the gap beneath the baseplate was completely filled. This comprised an additional 15-20mm thick grout, above that cast in the first stage, poured from one side until it started spilling over from the other end. The actual quantities used were checked against the theoretical figures to ensure that the pockets were fully grouted.

#### 9.8.3.2 Columns

Each level of columns was completed up to the installation of the permanent bracing, which meant that no additional temporary propping was necessary. The Subcontractor verified this temporary state through design calculations prior to commencement on site.

Two teams of four operatives each were involved with the erection of the columns; Team A was involved with column on the East elevation and Team B with the West elevation. Each elevation included the temporary lifting frame. The elevations were roughly subdivided into four working areas as follows (refer to Figure 9:12 for gridline reference):

- Area 1 covered gridlines 13.3-13.4/13.A-13.G;
- Area 2 covered gridlines 13.3-13.4/13.G-13.K;
- Area 3 covered gridlines 13.1-13.2/13.A-13.G and;
- Area 4 covered gridlines 13.1-13.2/13.G-13.K.

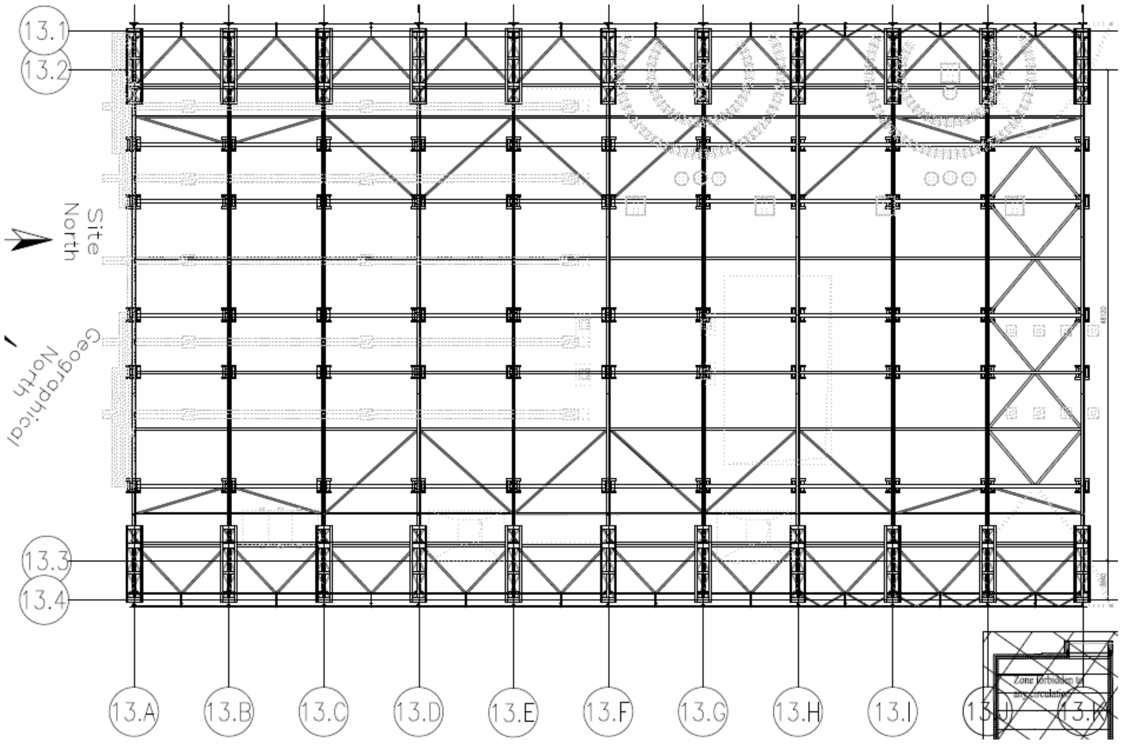



**Figure 9.12 Plan showing Assembly Hall gridlines (by Subcontractor)**

The sequence of works for the two teams is summarised in Table 9.7 below:

**Table 9.7 – Sequence of column erection**

| Phase | Team | Level | Area | Erection direction | Equipment |
|---|---|---|---|---|---|
| 1 | A | 1 | Area 1 | South to North | 1x250ton crane + 1x16m MEWP |
| 2 | A | 1 | Area 2 | South to North | 1x250ton crane + 1x16m MEWP |
| 3 | A | 2 | Area 1 | South to North | 1x160ton crane + 1x26m MEWP |
| 4 | A | 2 | Area 2 | South to North | 1x160ton crane + 1x26m MEWP |
| 5 | A | 3 | Area 2 | North to South | 1x160ton crane + 1x46m MEWP |
| 5 | B | 1 | Area 3 | South to North | 1x160ton crane + 1x16m MEWP |
| 6 | A | 4 | Area 2 | North to South | 1x160ton crane + 1x46m MEWP |
|  | B | 1 | Area 4 | South to North | 1x160ton crane + 1x16m MEWP |
| 7 | A | 3/4 | Area 1 | South to North | 1x160ton crane + 1x46m MEWP |
|  | B | 2 | Area 4 | North to South | 1x160ton crane + 1x26m MEWP |
| 8 | A | 5 | Area 2 | North to South | 1x160ton crane + 1x70m MEWP |
|  | B | 3/4 | Area 4 | North to South | 1x160ton crane + 1x46m MEWP |
| 9 | A | 5 | Area 1 | North to South | 1x160ton crane + 1x70m MEWP |
|  | B | 5 | Area 4 | North to South | 1x160ton crane + 1x70m MEWP |
|  | B | 2 | Area 3 | North to South | 1x160ton crane + 1x26m MEWP |
| 10 | B | 3/4 | Area 3 | North to South | 1x160ton crane + 1x46m MEWP |
| 11 | B | 5 | Area 3 | North to South | 1x160ton crane + 1x70m MEWP |

#### 9.8.3.2.1 *Column Levels 1 and 2*

For the erection of Level 1 and 2 columns, Team A was equipped with one 250 tonnes mobile crane and one diesel articulated MEWP with a reach of 16m. With the top of the concrete recesses grouted, Team A began with the installation of shims (up to a maximum of 3 in each location) between HD bolts to achieve a level platform, thereby enabling the columns to be erected to the required vertical tolerances.

Using a special lifting device bolted to the splice connection holes on the web, the column is lifted upright by the crane. For safety reason, the crane cable was kept vertical during the lifting process in order to avoid a swing weight. This was achieved by employing a series of manoeuvres of lifting the cable and pivoting the column on its base while moving the crane boom. Once the column was in the vertical position, the crane then crawled into position, in the middle of each zone (Zone A-J as shown in Figure 9.9), with the movement of the column controlled by a tag line connected at its base. The column is then fixed into its permanent position, with assistance from the MEWP and a few more resources as shown in Figure 9.13 below.

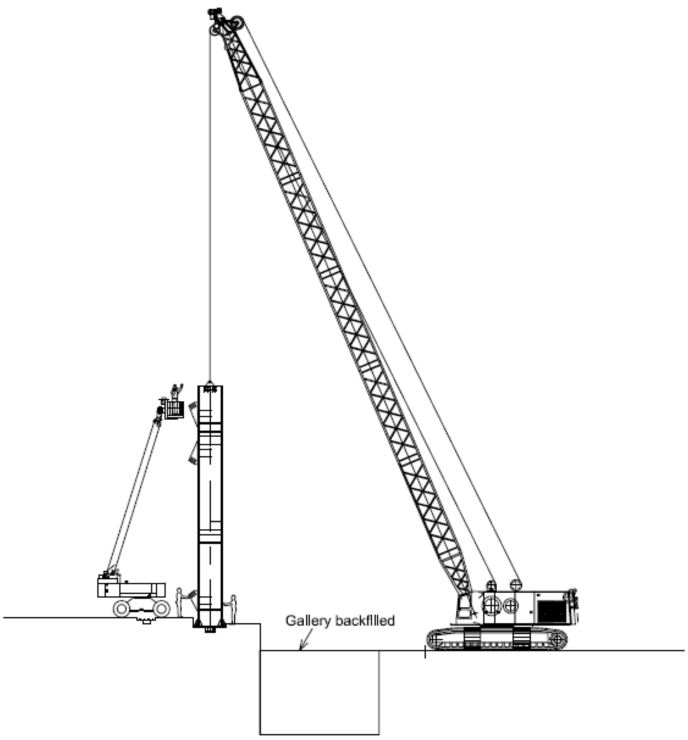



**Figure 9.13: Installation of the first level column using a crawler crane and MEWP (by Subcontractor)**

The installation started with the column JF1-1 on gridlines 13.A/13.3 on 25 September 2014 (refer to Figure 9.14) followed by JF1-2 on gridlines 13.A/13.4 the following day; all bracing members between these two columns on gridline 13.A; column on gridlines 13.B/13.3; all bracing members between the inner columns on gridline 13.3; column on gridlines 13.B/13.4; all bracing members between the two columns on gridline 13.B; and finally all bracing members between the outer columns on gridline 13.4. At this stage, the installation was stable without the need for additional propping. The rest of the column installation, including the associated bracing, on the East elevation were completed by Team A in Phase 1 and 2 as detailed in Table 9.7 above.


Figure 9.14: First column completed at Level 1 by Team A on 25/09/14

After the completion of East elevation (except for 13.K) and the associated second stage grouting, Team A installation activities proceeded to Level 2 columns on 17 December 2014, working from the South to the North in Phases 3 and 4. Figure 9.15 below shows the column lift completed to Level 2.

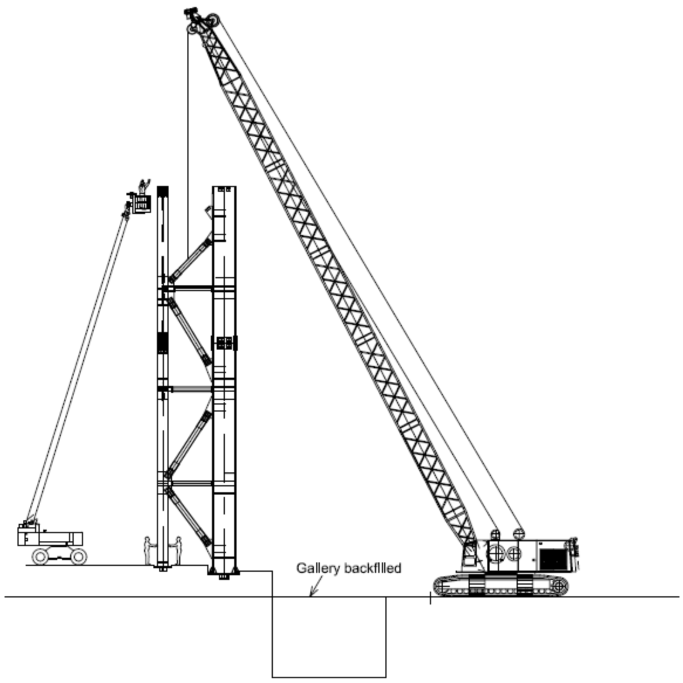



Figure 9.15: Column completed to Level 2 (by Subcontractor)

The column installation on the West elevation was carried out by Team B equipped with a 160 Tonne crawler crane and one diesel articulated MEWP with a reach of 16m. Although the erection of the columns on this elevation was carried out in later Phases 5 and 6 (Level 1) and Phases 7 and 9 (Level 2) as shown in Table 9.7, the process was similar to that of the East elevation.

#### *9.8.3.2.2 Column Levels 3 and 4*

On completion of the Level 2 works, both Team A (Phases 5, 6 and 7) and Team B (Phases 8 and 10) proceeded to Level 3 and 4 as detailed in Table 9.7. At these levels, both teams are each equipped with a 160 tonne crawler crane and an articulated diesel MEWP of 46m reach.

The installation sequence at Level 3 followed that at lower levels. However, the erection sequence at Level 4 was complicated by the presence of steel trusses at the top of the inner column as shown in Figure 9.16 below. Following the installation of the outer column, the horizontal box section was fixed as a cantilever until the kinked inner column was fixed. The rest of the bracing was then completed, including the top horizontal beam. This sequence was repeated at every grid, meaning that the outer column at each gridline was always installed first in order to support the cantilever prior to the inner column being erected. The bracing between the outer and inner columns was installed first before that between the inner columns.

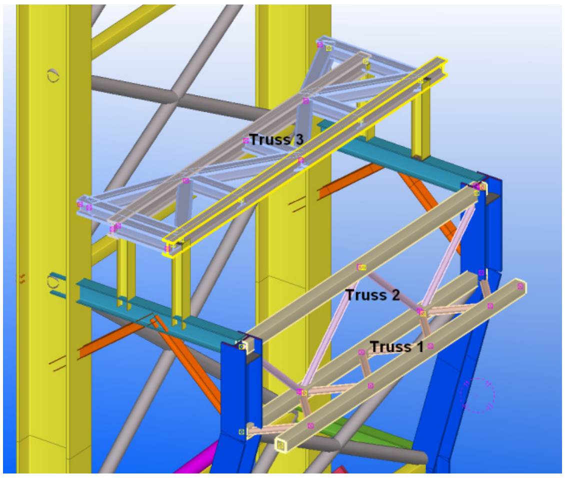



**Figure 9.16: Internal perspective view of Trusses 1, 2 and 3 at crane runway beam levels (by Subcontractor)**

The installation of Truss 1 and 2 shown in Figure 9.16 then followed. A section of Truss 1 between columns came as one element with joints welded in the workshop. Truss 2, on the other hand, came to site as individual elements which were assembled on the ground before being installed as one component. To avoid clashing with the temporary lifting frame, Truss 3 was installed after the roof was lifted into place. Level 4 was completed by the installation of the bracing between outer columns. Figure 9.17 below shows the column completed to Level 4.

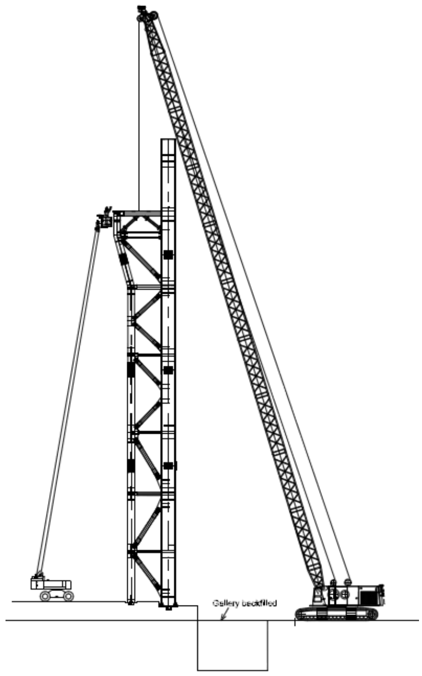


Figure 9.17: Column completed to Level 4 (by Subcontractor)

#### *9.8.3.2.3 Column Level 5*

Equipped with a 160 tonne crawler crane and a 70m reach telescopic MEWP, each team installed the Level 5 columns in Phases 8 and 9 (Team A) and 9 and 11 (Team B) as detailed in Table 9.7. This only involved the outer column and part of the roof truss which, in the majority of cases, was pre-assembled at ground floor before being lifted into place as a unit.

The sequence of works was therefore more straightforward than the previous levels. As soon as the column was secure, the team moved to the next bay followed by bracing between the outer columns. The roof members between column grids were then fixed from the bottom chord upwards to complete the Level 5 installation. Figure 9.18 below shows the column completed to Level 5.

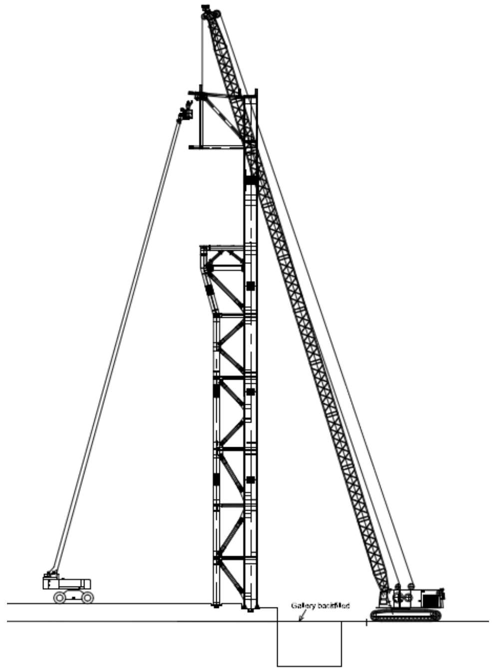



Figure 9.18: Column completed to Level 5 (by Subcontractor)

#### *9.8.3.2.4 Temporary lifting frame*

The roof structure was pre-assembled at ground floor and then lifted into its permanent position as detailed in Section 9.8.3.3 below. To facilitate this lifting process, a temporary steel frame was installed at roof level. A 3D image of the temporary structure, designed to be supported on both the inner and outer columns is shown in Figure 9.19 below. In addition, Figure 9.24 shows the temporary frame fixed at the top of the column.

This whole frame was assembled at ground level, lifted as a unit and bolted to the inner and outer column. On the inner column, the runway beam bolt holes were utilised for the frame while temporary holes were provided on the outer column. These temporary holes were left in place after the lifting structure was dismantled. The lifting cables for the roof were supported on the triangulated truss at the top of this temporary frame. The permanent part of the roof truss installed with the Level 5 column passed through the two vertical members of the temporary frame and was therefore not subjected to lifting loads.

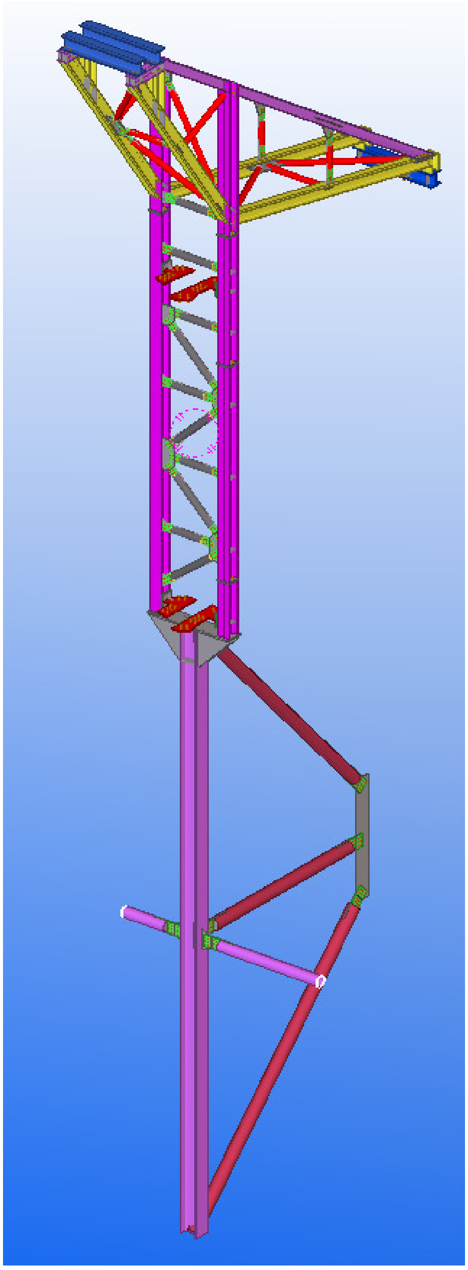


Figure 9.19: 3D perspective view of the temporary lifting frame at roof level (by Subcontractor)

Following the tightening of all the bolt connections and the final topographic survey, the vertical frame was ready to receive the roof structure discussed in the next section.

#### 9.8.3.3 Roof Trusses

The eleven duo-pitched trusses spanned 55.8 m between the main columns on gridlines 13.1 and 13.4. Horizontal bracing was provided around the whole perimeter of the roof at both the top and bottom chord levels of the truss. Ties were added between the trusses to provide lateral stability. Figures 9.20 and 9.21 below show the roof plans at bottom and top chord levels respectively.

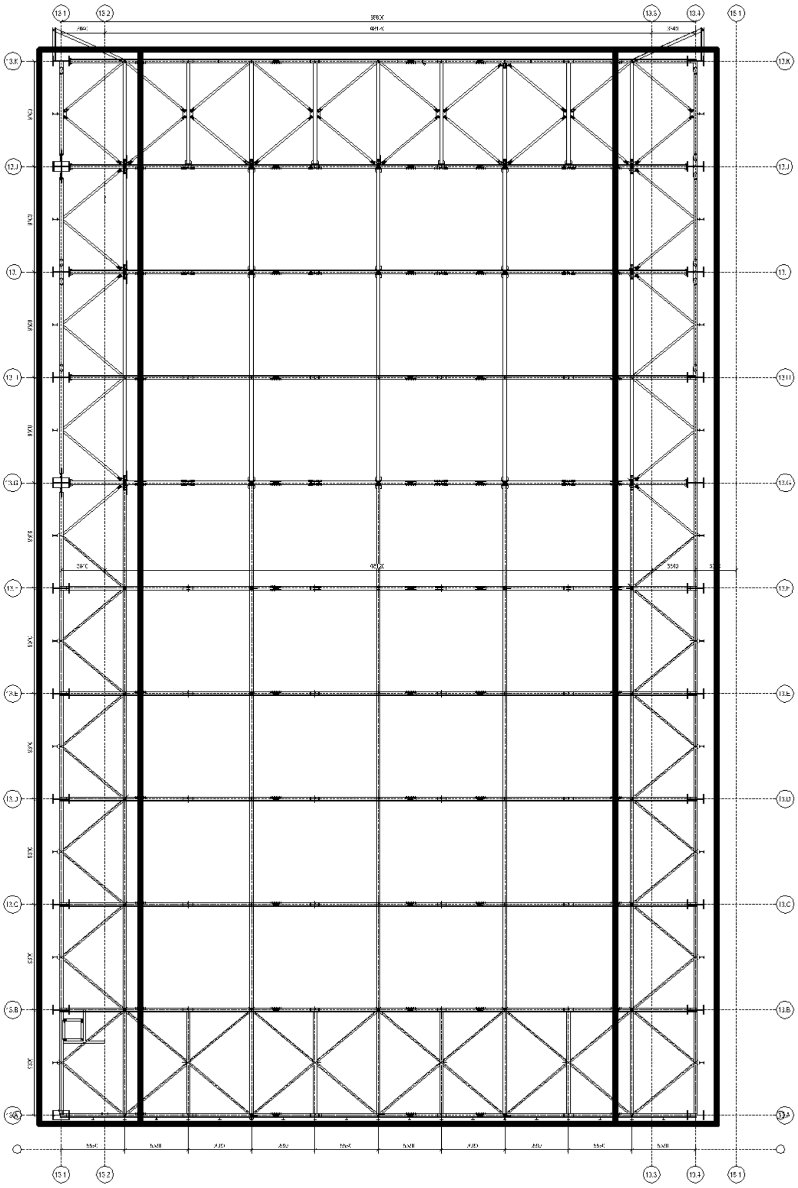


**Figure 9.20: Roof plan at bottom chord level (by Subcontractor)**

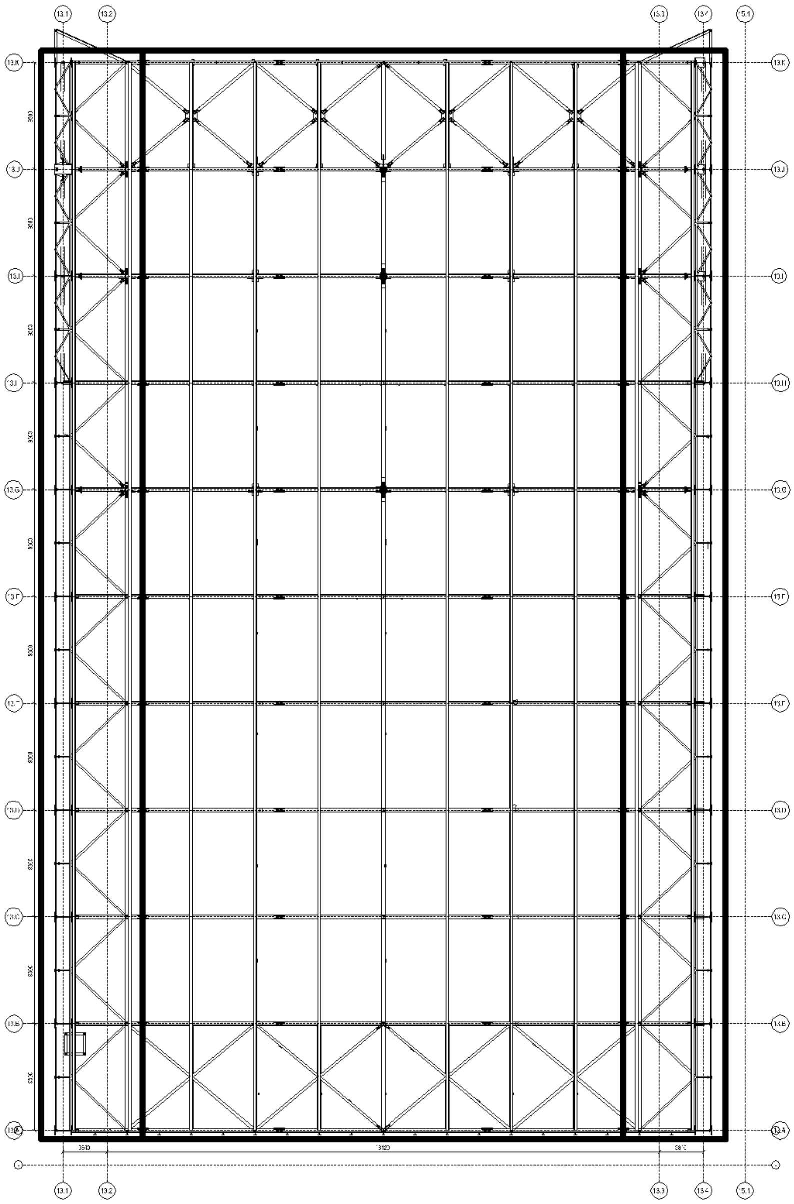


Figure 9.21: Roof plan at top chord level (by Subcontractor)

As discussed in Section 9.8.3.2.3 above, the ends of the trusses were erected as part of the columns. The scope of this chapter is therefore limited to the erection of the remaining part of roof structure as highlighted in the middle rectangular box in Figure 9.22.

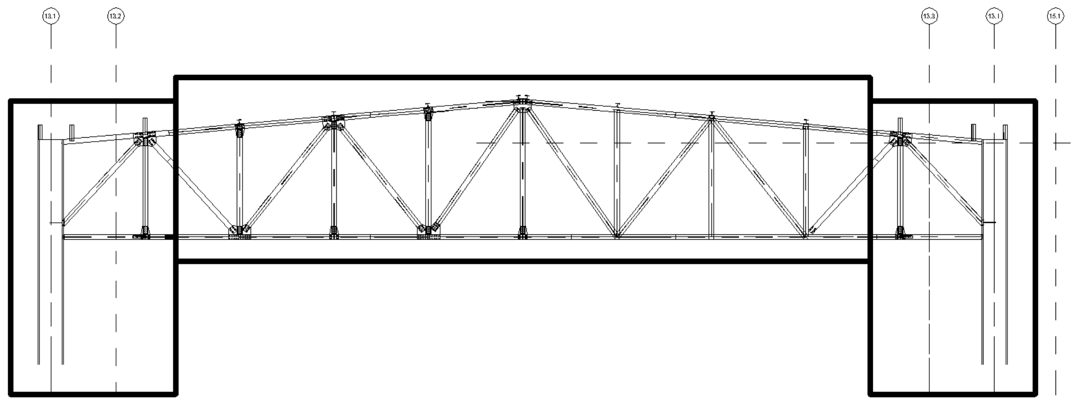


Figure 9.22: Typical cross section of the roof truss (by Subcontractor)

#### *9.8.3.3.1 Pre-assembly*

The whole roof structure, including the walkways at the bottom chord level and purlins at top chord level, was pre-assembled at ground level on site. The roof was then lifted as a unit using a synchronized jacking system and splice-connected to the previously erected ends of the trusses. When called upon to recover construction delays, the Subcontractor introduced shift working for column erection (08:00 – 14:00 hours), roof pre-assembly (14:00 – 20:00 hours) and bolt tightening (20:00 – 06:00 hours) in order to minimise H&S risks brought about by these co-activities. No heavy lifting was acceptable during the night shift in spite of adequate lighting being provided.

A temporary support frame, comprising of five trestle towers per grid, was placed on top of the concrete raft and levelled to give headroom of 2m to the underside of the bottom chord. Owing to the heavy weight of the roof, no anchoring down of the trestle towers was necessary. The roof erection team was a Subcontractor Level 2 equipped with a 40 tonne mobile crane for movement of materials and a 12m articulated MEWP and telehandler to reach all parts of the roof in this assembly state. The assembly process progressed from the South starting with gridline 13.B. The end trusses (gridlines 13.A and 13.K) were assembled last as interface details with the gable elevations needed to be finalised first.

Three additional temporary supports were provided during the assembly of the first truss and were only removed when this truss was fully assembled. Manual lifting was adopted for this first truss, with the help of the MEWP. No lifting equipment could be used due to lack of working space. The walkway structure at bottom chord level as well as the purlins and trimmers at top chord level were also installed at ground level. A major part of the roof cladding was also installed during this pre-assembly stage.

The permanent horizontal roof bracing in the longitudinal direction was provided on the roof section erected as part of the column structure. This implied that temporary bracing was required for the pre-assembled roof until it was fully installed in its permanent position. Additional members were therefore added to provide stability and rigidity during the temporary state. The temporary bracing to the top chord is annotated on the assembled roof structure shown in Figure 9.23 below.

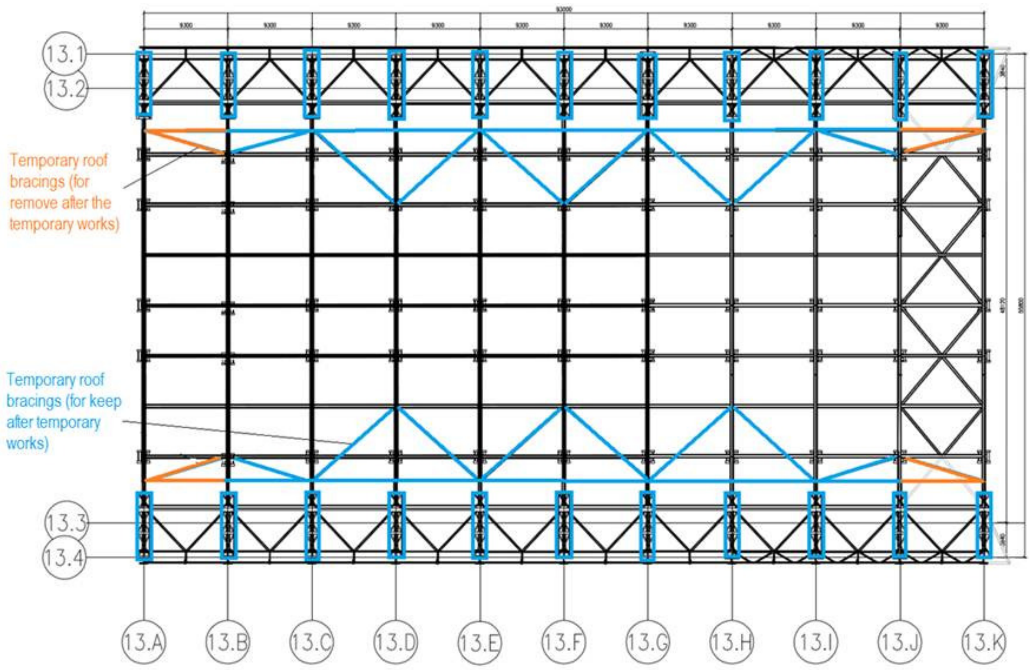



Figure 9.23 Plan view of the roof assembly with the top chord temporary bracing shown (by Subcontractor)

Every effort was made to integrate as much of these temporary elements into the permanent structure. A majority of the temporary elements, including gusset plates and bolt holes, were detailed to remain in place and avoid dismantling whenever possible. It is highlighted in Figure 9.23 that the majority of the temporary bracing was integrated into the permanent works.

Some elements were detailed to serve dual purposes. For example, the end of the top chord was cantilevering and needed to be propped until the splice joint was connected. The lifting points for the roof were also located at the ends of the top chord. Thus, the temporary bracing member provided temporary stability to the top chord as well as strengthened the structure for the lifting process (refer to the truss at ground level in Figure 9.24).

Although the position of the lifting eye was checked after the completion of each truss to ensure verticality of the lifting cable, a topographic survey of the entire assembly was performed at the end to ensure that overall deflections were within the allowable limits. The bespoke lifting eye did not protrude above the top of the purlin level and was left in place following the lifting process.

#### *9.8.3.3.2 Lifting of roof structure*

Utilising all the data from the topographic survey of the columns, the temporary frame at roof top and the roof structure and lifting points at ground level, the Subcontractor assessed and confirmed that displacements were going to be within limits. A synchronized inverted hydraulic jacking system comprising 22 (one at each column position) SLU40/300 lifting jacks and 16mm diameter 4-strand cables with EV6-4 end anchors was employed. In addition to the ancillary electrical cables and hydraulic hoses, a lifting frame was required for each jack. The whole operation was powered by 6 hydraulic pumps and managed by a centralised control unit, which controlled the level of each of the 22 lifting points independently. The lifting team consisted of suitably trained operatives from the Subcontractor supervised by a specialist in heavy lifting.

The 55m long cables were installed first, pulled from the ground to the roof using an electric winch and connected to the two end anchors, which in turn were bolted to the top of the temporary frame at roof level. The operatives were working from a MEWP located outside the footprint of the building. The pre-assembled lifting jacks and their frames were then connected to the lifting points on the top chord of the trusses using a MEWP and telehandler. Hydraulic hoses were used to connect the jacks to the pumps located on the walkways. The distribution boards used for the supply of electrical power to all elements were also located on the walkways. Therefore, the main power cable from the main board to the generator located at ground level needed to be long enough to allow for the 60m rise of the roof. The data cables were then connected to the central control unit located at the south gable end of the building. Figure 9.24 below shows a section of the roof assembly at ground floor and in its final position.

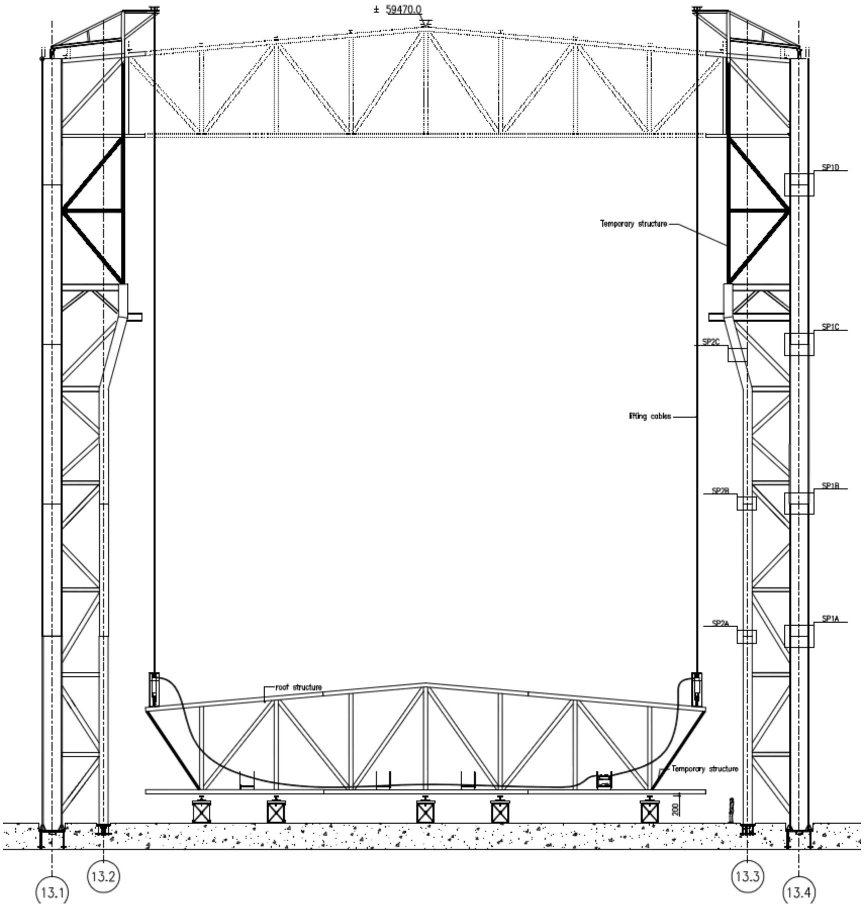



**Figure 9.24: Section showing the lifting of the roof from the ground (by Subcontractor)**

The heavy roof installation needed all necessary safety precautions to be taken, including forecasting and monitoring the weather conditions way in advance of the lifting operation. The control plan required that the entire assembly be inspected and signed of at this stage. This included a topographical survey of the structure (columns, top anchor points, lifting points and the roof assembly as a whole) to ensure that it was still within tolerance. All connections were double checked to ensure that bolts were adequately torqued and no unacceptable gaps existed in connections that could have led to excessive settlements and temporary instability of the structure.

The roof structure was connected to columns at each corner of the building by stabilisation chain blocks to avoid a sudden jerk of the roof assembly at lift-off. With an operative controlling each of the chain blocks, the roof was gradually lifted off the trestle towers by approximately 200mm. There was a lot of squeaking noise during this load transfer exercise, which only an experienced hand could appreciate without being concerned. The jacks were then locked in this temporary state overnight for at least 12 hours with the chain blocks loosened in order to check, using pre-determined checklists, the structural behaviour of the whole frame against design expectations. This included checking the lifting cable loads (read from the control unit), truss mid-span deflections (measured by tape) and column top displacements (from topographic survey).

Once the results were approved by both the Subcontractor and the Contractor, the lifting operation progressed in earnest at an average speed of 8m/hour with all jacks synchronised. Operatives, working from MEWP located on the outside of the building footprint, periodically (at no more than 17m rise) lubricated the jacks. Column displacements were checked and signed off again when the roof was mid-way up and at the top of the columns. This intricate lifting process took three days to complete from 9 to 11 September 2015. Figure 9.25 below shows the roof structure reaching its final height.

**Figure 9.25: Roof lifted to its final height on 11 September 2015**

Minor non-alignment was anticipated between the trusses and the already installed columns due to the temporary horizontal displacement of the frame (of up to 70mm) and the vertical deflection of the roof assembly (of up to 50mm). Using a 70 tonne crane with jib and a 70m reach telescopic MEWP, two teams of operatives worked on one truss at a time to align these elements and install the permanent splice connections. The alignment was achieved through the use of manual hydraulic jacks placed on each chord member and simultaneously operated.

As soon as both bottom and top chord members had there splice joints connected, the permanent diagonal members that straddled across the splice joint were installed at each end of the truss before the temporary members were removed. This process was repeated for all eleven trusses and connections double checked before the tension in the lifting cables was released and loads transferred to the permanent frame. This was indeed an intricate exercise that demanded constant monitoring and maximum attention from all those involved. The finishing works then followed, which included the removal of temporary bracing, bolt tightening and torque adjustment.

The dismantling of the temporary works was performed by two teams of operatives, sharing a 160 tonne mobile crane with jib and several MEWP with reach of up to 70m, working from both the inside and outside of the building. One team worked on the temporary structure at the top of the columns while the other was dedicated to the removal of the lifting equipment.

#### 9.8.3.4 Crane runway beams

Installation of the two sets of crane runway beams (for the 50 and 750 tonne overhead cranes) only started when the roof structure was safely installed in its permanent location. Truss 3 (refer to Figure 9.16 above), which provided lateral restraint to the top flange of the 750 tonne runway beam, was pre-assembled at ground level and also installed at this stage.

Up to three steel shims were installed at each connection by a team equipped with a 43m reach articulated MEWP, in order to achieve the required 20mm gap beneath the bearings for future grouting. The shims were custom made to allow their removal or addition and enable final level adjustments after the bearings were installed. This was followed by the installation of the bottom parts of the bearings for both sets of runway beams, utilising a 40 tonne mobile crane and working from the inside of the building. The installation started on the East elevation (gridline 13.3), working from the North (gridline 13.K) to the South (gridline 13.A). The bearings were levelled and lined prior to moving on to the opposite side.

A telehandler was employed to pre-fix the upper part of the bearing to the crane beam on the ground, with packer plates used to provide a 20mm grouting space required by the specification. The beams were then lifted into place by a team equipped with two 43m reach MEWP and two mobile cranes of 80 tonnes capacity (for the lighter runway beam and Truss 3) and 200 tonnes capacity (for the heavier runway beam). The type of bearing installed at one end allowed the runway beam to deflect under its own self-weight without exerting horizontal forces to the whole structure. The installation followed the same sequence as the bearing installation, allowing the East beams to be completed and lined before moving on to the opposite side.

The alignment process involved loosening the bolt connections between the runway beam and the top part of the bearing followed by lifting of the beam using a 25 tonne jack placed between the bearings at column location as shown in Figure 9.26 below. Different thicknesses of custom made shims were then added between the top part of the bearing and the beam, all controlled by a topographical survey. The bolts were manufactured 10mm longer to accommodate these final adjustments.

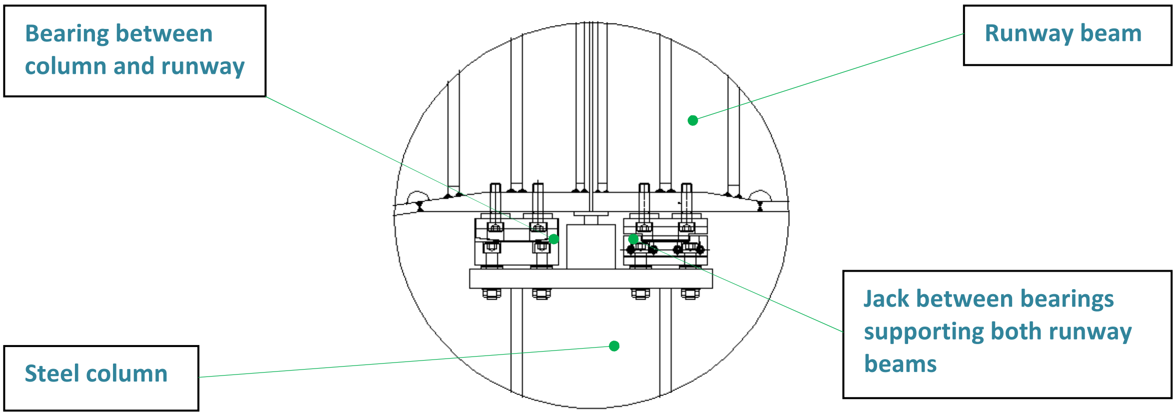



**Figure 9.26: Section showing jack placed between bearings and connection bolts loosened (by Subcontractor)**

The lateral connections to the top flanges of the runway beams were the last pieces of the puzzle to be installed by a team equipped with a 43m reach MEWP and a 40 tonne mobile crane. The connection plates were only fabricated after a topographic survey of the final position of columns, Truss 3 and the runway beams. Eccentric bushes were used to take into consideration the thermal expansion of the steel that had occurred between the time the survey was taken and the installation of the plates.

#### 9.8.3.5 South Gable Primary Structure

This section describes the installation of primary steel on the South (gridline 13.A) elevation of the building, which comprised a large 33m wide x 12m high access door. The erection of this steelwork started after the roof structure was in its permanent position.

A team of operatives responsible for this task was equipped with various MEWP with reach between 20 and 60m and mobile cranes of various capacities between 40 and 80 tonnes. Precautions were taken to avoid interference with co-activities such as the installation of the runway beams inside the building.

The structural steel was located on three vertical planes, the middle one being located on gridline 13.A. Approximately 5m deep trusses, one on each plane, were designed to span over the large opening and were braced together for rigidity as shown in Figure 9.1. The outer plane only extended to the top of the truss but columns were provided on the other two planes up to the runway beam level. These columns were laterally restrained by three equally spaced horizontal trusses that spanned between the main columns on gridlines 13.2 and 13.3. Removable columns were provided between the crane beam level and the bottom chord of the roof truss to allow for the future installation of the 750 tonnes overhead crane.

The columns on gridline 13.A and those on the vertical plane North of the grid were erected first. This was followed by the bracing and the horizontal elements connecting these members to the already installed columns. The trusses, pre-assembled at ground level using a telehandler and a 40 tonne mobile crane, were each lifted in turn and installed onto these columns. The horizontal bracing between the two trusses was then added at top and bottom chord levels thereby providing a stable frame as shown in Figure 9.27 below.

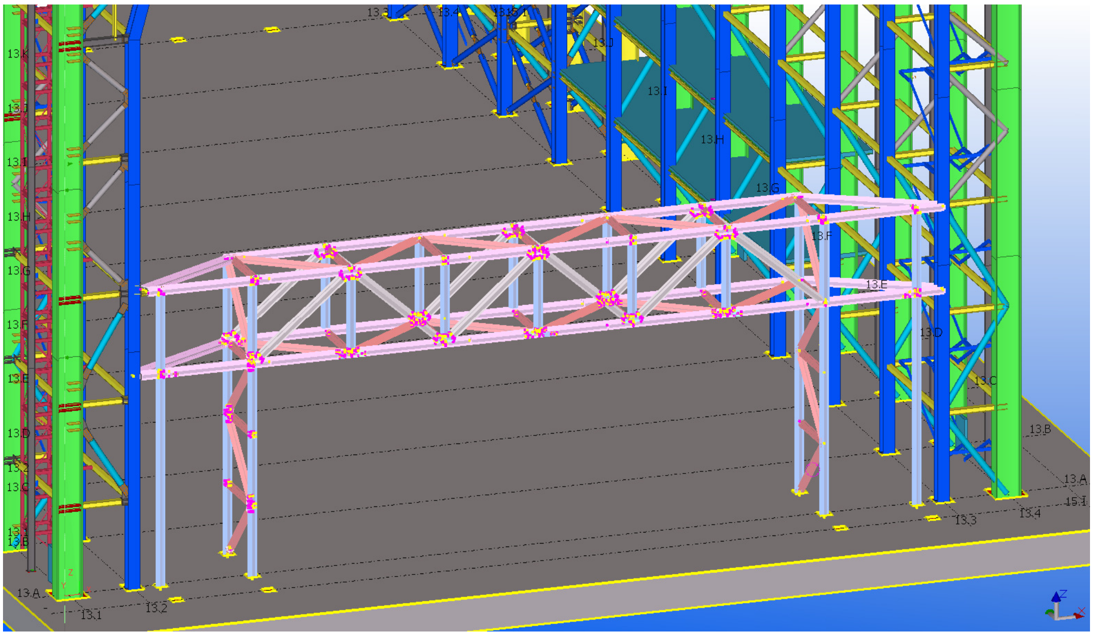


Figure 9.27: Trusses over the large access door on the South elevation (by Subcontractor)

The erection of the rest of the elevation steel above the trusses then proceeded from both ends, starting with the first 3 columns and followed by the installation of a pre-assembled piece of the horizontal truss. The erection then continued with pairs of columns erected at a time followed by the next piece of pre-assembled horizontal truss. Figure 9.28 shows one completed level of columns and horizontal truss.

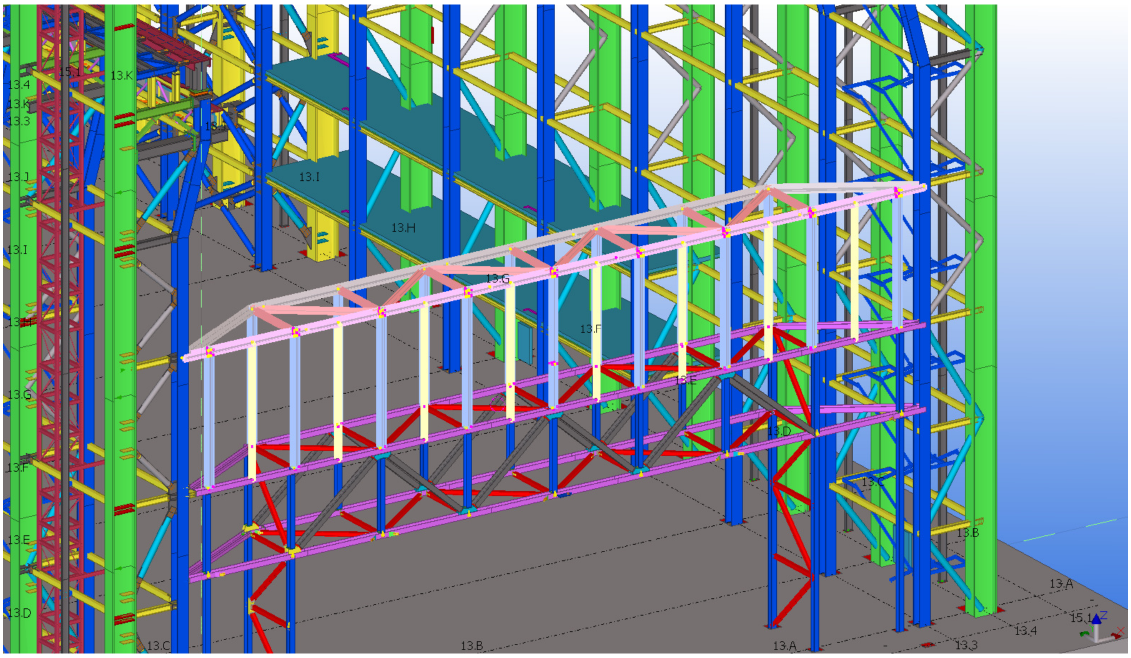


Figure 9.28: One level of columns and horizontal trusses completed over the large access door trusses (by Subcontractor)

This process was repeated until the last horizontal truss at Level 40.160 was installed. The removable vertical columns, detailed with slotted holes to allow vertical deflection of the roof, were the final pieces to be installed between Level 40.160 and the bottom chord of the roof truss, as shown in Figure 9.29. The now installed roof obstructed the lifting of these last pieces using a crane and so chain blocks were employed.

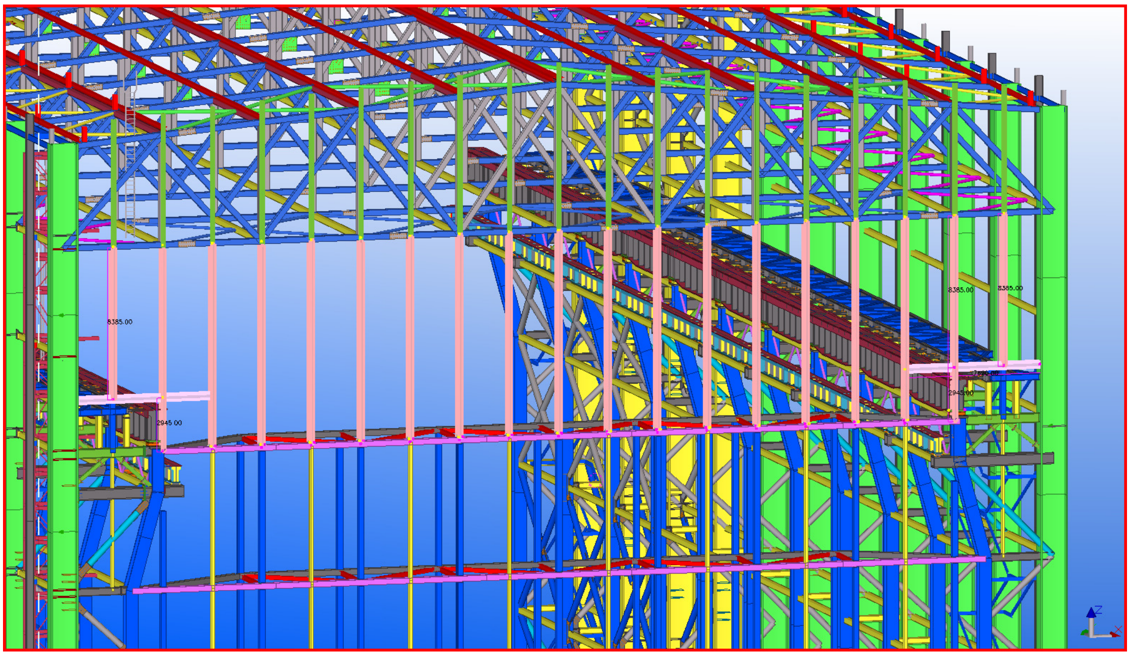


Figure 9.29: Removable columns installed to underside of roof truss (by Subcontractor)

The erection process was completed by the installation of the four columns on the outer vertical plane (South of gridline 13.A) followed by bracing and then the pre-assembled truss over the entrance. The truss was then braced back to the existing steel for stability. Figure 9.1 outlines the completed installation.

#### 9.8.3.6 North gable temporary barrier

The North gable elevation abutted the Tokamak complex and therefore did not require any permanent cladding. However, the Assembly Hall was required to be ready for use well before the construction of the Tokamak Complex was completed. Consequently, a temporary barrier was erected to provide a clean and air-tight environment that allowed the assembly of the Tokamak components to commence soon after handover. As the temporary barrier was required for over 5 years, cladding similar to the rest of the elevations was provided.

Similar to the construction of the South elevation, the North elevation comprised horizontal trusses on several vertical supports as shown in Figure 9.30. The trusses were installed level by level from the bottom. Bolted connections were used to facilitate future dismantling of the temporary barrier.

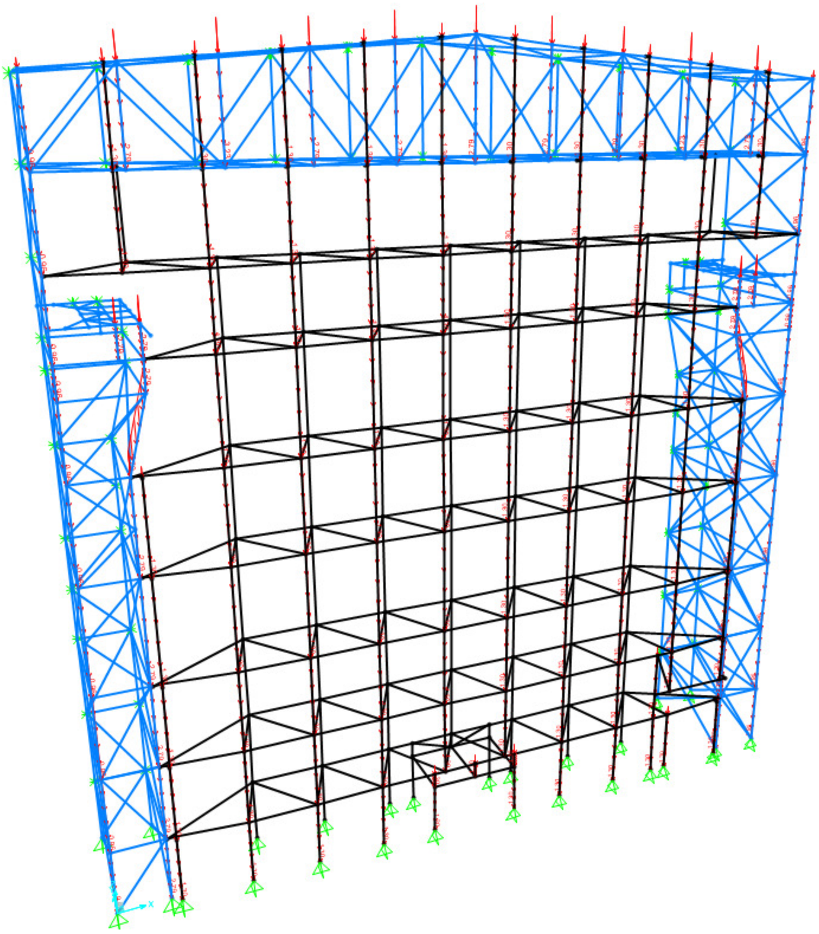


Figure 9.30: Elevation (3D) of the North gable temporary barrier - gridline 13.K (by Subcontractor)

This dismantling of the barrier will be a gradual process, working with winches on one horizontal truss at a time and starting from the bottom. This methodology ensured that an interim stage, where the temporary barrier is only maintained above to Tokamak Complex Level 4, was feasible. Once the dismantling process had started, each truss will be hanging from the one above.

#### 9.8.3.7 Secondary steelwork

As discussed earlier in Section 9.3, the secondary steelwork was designed by the Contractor and this included staircases, lift shaft, walkways, purlins, side rails and trimming steel required throughout the building.

The walkways within the column zones were installed in modules, together with the associated tertiary steel. This included the walkways on part of the roof installed with the columns, which incidentally gave safe access to the cable anchor points for the lifting of the roof.

The roof secondary steel was installed during the pre-assembly at ground level as discussed in Section 9.8.3.3.1. This included all walkways, with grating and handrails already fixed. As the roof cladding was installed during the roof pre-assembly, the associated purlins and trimming steel were also installed at that stage.

Steel staircases were located at each corner of the building rising from the ground floor to the walkways at the crane beam level. The installation of these staircases was relatively fast as each flight came to site pre-assembled with all its treads. Originally, the intention was to install the stairs as part of the main column erection because they fell within the column zones (i.e. they were located between the outer and inner columns) but this was not the case in the end due to manufacturing programme constraints.

In addition, there was a steel lift shaft located on the South-West corner of the building extending all the way up to the bottom chord level of the roof trusses. The lift shaft also came in modules that were stacked one on top of the other relatively fast.

The installation of the façade cladding rails was carried out by a team of operatives using various sizes of MEWP and working from the outside of the building. The associated trimming steel on these façades was installed only after all the other secondary steelwork was completed.

#### 9.8.3.8 Profiled metal deck

There were two 150mm thick concrete composite floor slabs on metal decking at levels of 5.600 and 11.300m above FFL and on gridlines 13.3-13.4/13.D-13.H. The slabs extended about 1.0m beyond gridline 13.4 in order to link with the adjacent building, thereby requiring cantilever angles to be welded to external columns.

Once the crane runway beams and the primary elevation steelwork were completed, and all the columns were aligned, levelled and plumbed and bolts tightened, the metal decking for the slabs was then installed by a team equipped with a telehandler. The lower deck was done first, followed by the upper deck and finished with the welding of shear studs on both levels, making use of a dedicated power generator. The concrete topping was subsequently poured but this was not part of this case study.

### 9.8.4 Transversal activities

Before summarising this chapter, a brief discussion of the transversal activities is carried out below. This covers topographical survey, bolt tightening and traceability.

#### 9.8.4.1 Topographic survey

Prior to commencement of each critical stage of works, a topographical survey was carried out to ensure accurate positioning of the structure and avoid cumulative errors. Indeed, a survey of the existing concrete raft slab and HD bolts was performed before starting the column manufacturing process. All erection tolerances (dimensional, level, location, straightness, alignment, inclination and spacing) were in accordance with BS EN 1090-2.

For the columns, reflective survey targets were glued to the outside face of both flanges, for ease of visibility before the components were lifted into place. The survey was carried out for each component, discrete group of components and after each level of columns was completed, including the braced bays. Final adjustments were carried out prior to the final tightening of bolts and grouting under the baseplates. A final survey of the completed column frame was carried out to verify levels, global positioning and alignment. These findings were compared with the calculated theoretical erection tolerance and BS EN 1090-2 prior to lifting of the roof structure.

For the roof pre-assembly, the topographic survey was checked on each truss using reflective survey targets fixed to the centre and ends of the truss, both on the top and bottom chords. A final check was also carried out and adjustments made before lifting of the roof.

During the lifting of the roof, topographical surveys were carried out to monitor deflections at the top of the columns, top of the temporary frame and at truss mid-span. These checks were done when the roof had just been lifted off the pre-assembly position, at column mid-height and when the roof was in its final position. Each survey was closely monitored with checks carried out against admissible figures from the specifications before progressing to the next stage.

For the installation of bearings on the crane gantry beam, survey target sticks were used instead of reflective targets. The gantry beam itself was surveyed at every 4.3m length, with the final survey carried out once all the beams were installed. A report was produced to facilitate the installation of the crane beams by a different contractor.

Topographical surveys were performed for other parts of the structure including all the elevations. It is worth noting that, since the primary structure was already stabilised and established as a reference point, these subsequent surveys were not as critical as those described above.

#### 9.8.4.2 Bolt tightening

Bolted splice connections were provided between column levels and between the pre-assembled roof and the columns. The rest of the components were connected by end or double fin plate joints. The majority of these bolt connections were preloaded with the required controls, both in the type of bolts and tightening requirements, prescribed by BS EN 1090-2. No welding was specified for the main connections on site.

Where ordinary bolts were required, only Grade 8.8 was specified in accordance with BS EN ISO 898-1 (bolts) and BS EN ISO 898-2 (nuts). The preloaded connections were Grade 10.9 high strength grip bolts conforming to BS EN 14399 -1, BS EN 14399 -2 and BS EN 14399 -3. For plain and chamfered washers, BS EN 14399-5 and BS EN 14399-6 were applicable respectively. All bolts were galvanised to BS EN ISO 10684 and stamped with an appropriate EC marking for steel structure.

For pre-loaded connections, each connection had a unique reference number detailed on the erection drawings. The bolts for each of these connections were delivered to site in accordance with the erection programme and assembled by dedicated teams utilising different MEWP sizes.

For traceability, each distribution of these bolts to the operatives on site was recorded, including information such as the name of the team leader, assembly batch number as well as the technical details of the bolts. Pre-load moments were calculated for each bolt and passed on to the tightening and torque team, with the leader being responsible for recording the details of the used bolts.

The torque was applied to preloaded bolts in two stages; firstly using impact wrenches such as BOSH GDS 30, BOSH GDS 24, BOSH GDS 20 and other manual or power torque tools and then followed by electric wrenches or, where access was limited, hydraulic torque machines such as Plarad. The first step involved tightening the bolts to approximately 75% of the torque moment and annotating the bolt with a stripe using a metal marker as shown in Figure 9.31 below. Once this first phase was carried out on all the bolts of the same assembly, the second step of tightening the bolt to 110% of its torque moment was then carried out and the bolt annotated with a second stripe as also indicated in Figure 9.31. This was an intricate process that required experienced operatives because, if any bolt needed to be loosened, the whole assembly was condemned and the connection restarted with a new set of bolts.

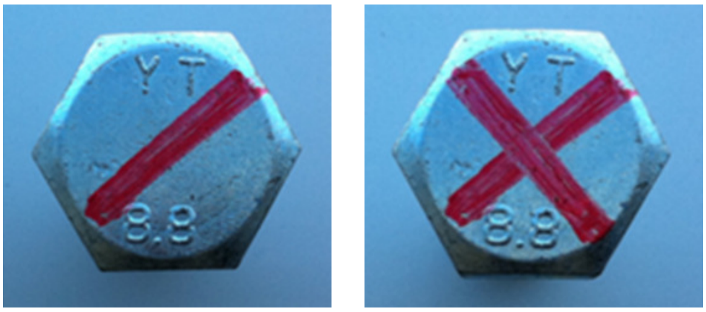



**Figure 9.31: Bolt annotation after the first and second tightening steps (by Subcontractor)**

All the contact surfaces of preloaded connections needed to be clean and free of waxes. The high-strength bolts themselves came lubricated and this could not be altered on site. When connecting plates and sections thicker than 4mm and 8mm respectively, residual gaps of up to 4 mm between plies were acceptable on condition that contact bearing was provided on the other part of a connection. Contact of the connected parts was achieved by use of shims at times. However, full contact bearing was specified for the critical connections between column components.

For a ply connection shown in figure 9.32 below, the acceptable value of D is 1mm for pre-loaded connections, as compared to 2mm for ordinary bolts.

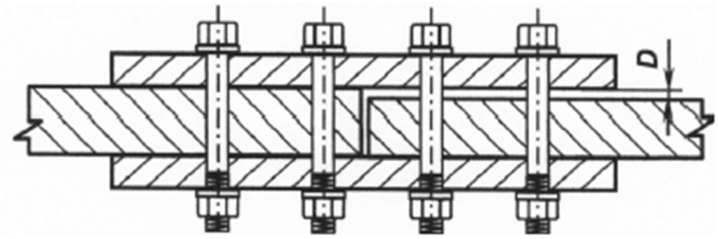



Figure 9.32: Ply connection showing acceptable gap D (by Subcontractor)

Nuts and bolts had to be fully compatible and capable of being tightened by hand until contact with the washer or plate. The tightening process needed to follow a sequence of moving from the most to the least rigid parts of the connection. Welding of nuts to bolts was prohibited and all the bolts were tightened from the nut end. It was acceptable to add washers to the bolt head and tighten it from that end only in a few instances when access from the nut end was restrictive. A minimum of one thread was specified between the tightened nut and the unthreaded bolt shank. On the unturned side of the bolt, a maximum of three plate washers, with a total thickness of less than 12mm, were acceptable in cases where the grip length of bolt connection needed to be adjusted.

The tightening of ordinary bolts was carried out using the same torque tools utilised in the first phase of preloaded bolts. All ordinary bolt connections were visually inspected and corrected as necessary. Following any corrective action such as adding a missing bolt, local alignment of the structure was re-checked.

As a minimum, an inspection of pre-loaded connections was performed for each connection type, equipment used, responsible operative, bolt group as well as fastener lot, type and size. Large bolt assemblies were broken down into smaller groups for inspection purposes. Once these variable parameters were established, the selection of the sample to be inspected was done on a random basis and had to be a minimum of 10% of the total bolt assemblies.

The nut was considered to be under-tightened if the inspection torque turned by more than 15°. For example, the standard allowed only one bolt to fail the test on a 23-bolt assembly for an EXC4 structure, although failure of up to 4 bolts was considered acceptable if the non-conformities were minor. Visual inspection included checking if there were gaps on the centre of the connection, which was not difficult to establish in good daylight.

The Execution Class of the primary steel was considered as EXC4 (special structure with extreme consequences of a structural failure) and that of the secondary steel as EXC3 (buildings higher than 15 storeys), in accordance with BS EN 1090-2. The quality class for both primary and secondary steel was $S_1$ on the basis of ultrasonic testing carried out to BS EN 10160.

**9.8.4.3 Traceability**

The specification required that each material received from suppliers be logged and traced through fabrication, delivery, erection and onto the as-built documentation. Furthermore, it was required that samples of steel be kept by the Subcontractor to enable the User to carry out tests if considered necessary in future. This following section describes the traceability procedure employed on the Assembly Hall steelwork.

Based on BS EN 1090-2, work procedures were produced and approved before the commencement of an activity. These included details of how non-conformities, modifications, welding, repairs and surveillances were managed. Effectively each material needed to be traced from fabrication in the factory to erection on site.

Each steel element (e.g. plate or profile section) was given a unique identity number by the Subcontractor, which was linked back to the recorded details received from the suppliers and the CE markings (BS EN 10025-1, BS EN 1090-1) on the elements. Every component (e.g. completed beam or column) included the identification details of its constituent element. Welded joints were uniquely numbered and linked back to the welders, consumables and welding methodologies. These identification numbers appeared on both the component and the associated drawings.

A unique reference was developed by the Tekla 3-dimensional (3D) model for each component during the detailing phase. The 3D model and the 2-dimensional (2D) details developed therefrom were used for the manufacturing of the components and erection of the steel frame. Traceability was assured by hard-stamping a reference number onto the physical component that corresponded to the one shown on the drawings. Unfortunately the 3D model could not include the material batch numbers but these were given on separate traceability lists. Thus, the heat number of the constituent element from the mill was able to be traced to each erected component on site.

The component traceability list included references of the component, constituent elements, material (section type and size), steel grade, heat (number hard-stamped on the plate), plate number (assigned by Subcontractor), certificate number (for the raw material), erection (hard stamped on the component), Subcontractor unique identity as well as the manufacturer and supplier identities. Similarly, the welding traceability list included the number of the weld, welding detail identification, welder identification brand, consumable batch, welding procedure and Non-Destructive Test (NDT) report. The painting traceability list included the reference of the material (product and layer), batch (reference of a batch of materials from a single supplier), paint certificate, paint supplier, manufacturer and paint inspection record.

At the end of the construction phase, the as-built documentation was passed over to the User. This package included a schedule of all the documentation used on the project, calculations notes, final 2D drawings and details, final 3D model, working procedures, material certificates, audits and quality inspection reports, test and measurement reports, quality and control plans, H&S report, non-conformity reports, delivery notes and traceability lists.

In addition, all reusable off-cuts generated during fabrication were marked up with all relevant information shown on the cutting plan (including steel grade, plate, heat and project number) using a ball point metal marker to enable traceability. This material could be used by the Subcontractor to produce other components on future projects.

Logged unusable leftovers were recycled back to the mills without the need to shred them first. Indeed, the specification for the Assembly Hall required that the steel come from a mill using at least 10% recycled steel not originating from former nuclear buildings.

This traceability was checked through several control points introduced during the construction process. Furthermore the final completed frame and as-built package had to be formally accepted by the Engineer prior to handover.

## *9.9 Summary*

This chapter covers the case study carried out on the Assembly Hall building on the ITER site and discusses the fabrication and construction activities of the structural frame. In spite of this chapter detailing the processes involved in the construction of the whole Assembly Hall steel frame, the actual erection on site was witnessed only up to roof installation due to time constraints.

Appendix 1 captures the evolution of procurement, manufacturing and erection activities on a monthly timeline from contract commencement to completion of the roof installation. Similarly, Appendix 2 details the quantity of steelwork processed on a monthly basis for each part of the structural frame (i.e. columns, box-beams, beam-bracings, roof structure, purlins and walkways).

A schedule of all the steelwork erected during the same period is shown in Appendix 3. This accounted for 4747 out of the 5800 tonnes of hot-rolled steelwork for the entire structure. Finally, Appendix 4 shows a selection of photographs taken during the construction of the Assembly Hall, starting with the most recent.

The steelwork quantities included in the appendices are categorised as columns; box-beams; beam-bracings; roof; purlins and walkways as defined below:

1. The columns comprise the primary vertical components including the splice plates between levels;
2. The box-beams comprise the 675 x 600mm deep horizontal component linking the inner and outer columns at level 37.785m. These box-beams cantilever beyond the inner column to support the lower 50 tonnes crane runway beams;
3. The beam-bracings consist of all the horizontal and diagonal steelworks used to tie and brace the columns together. In addition, the roof structure erected as part of the columns is included in this category. Essentially, it is all steelwork on gridlines 13.1-13.2

and 13.3-13.4 that is part of this study other than that covered in Items 1 and 2 above and the crane runway beams;

4. The roof consists of all the primary steelwork used to construct each truss as well as to tie and brace the trusses together. It principally comprises all primary steelwork between gridlines 13.2 and 13.3 at roof level, including the splice plates;
5. The purlins are the horizontal secondary steelwork placed on top of the roof structure in order to support the roof cladding;
6. The roof walkways comprise the secondary steelwork used to construct four out of a total of six walkways located at the bottom chord of the trusses.

# 10 Findings and Analysis

The following sections cover the interpretation of information gathered in this research, both from existing literature and the case study.

## *10.1 From literature*

From Chapter 6, it was established that 1518 Mt of steel were produced in 2011 of which 56% was consumed by the construction industry. About 21.8% of the total production was attributed to structural sections, translating to approximately 331Mt of steel.

Table 8.1 gives the steel emissions for UK Sections and Plates as 1.53 and 1.66 $kgCO_{2e}/kg$ of steel respectively for cradle-to-gate boundary case. More than two thirds of the studied Assembly Hall steelwork was made up of plate girders and so the average emission figure is estimated to be 1.62 $kgCO_{2e}/kg$. In Chapter 8, a more general emission figure of 1.8 $kgCO_2/kg$ (average for the whole steel industry including construction) was also established for the same boundary case. As the latter includes non-structural steel, the figure of 1.62 $kgCO_{2e}/kg$ is considered more applicable to structural steelwork.

Thus, it is estimated that the absolute steel embodied carbon emissions for the cradle-to-gate boundary case was 2.7 $GtCO_2$ (1.8 x 1518 Mt) in 2011 of which 0.536 $GtCO_2$ (1.62 x 331 Mt) was from structural steelwork.

From Table 8.2, it is estimated that the fabrication phase emit another 1.0 $kgCO_2/kg$ of steel, adding an extra 1.5 $GtCO_2$ to the overall 2011 emissions and 0.331 $GtCO_2$ to the structural steelwork emissions. These give cradle-to-site emission figures of 4.2 $GtCO_2$ (2.8 x 1518 Mt) overall and 0.87 $GtCO_2$ (2.62 x 331 Mt) for structural sections.

Since the study was carried out on 2011 figures, the total steel production has slightly increased to 1665 Mt in 2014 (Worldsteel, 2015). Therefore, it is estimated that the cradle-to-site carbon emission has increased to a total of 4.7 $GtCO_2$ in 2014. The percentage share of structural sections has barely changed, increased from 21.8% to 23% (ibid.) The cradle-to-site emission for structural sections is estimated to be 1.0 $GtCO_2$ (2.62 x 0.23 x 1665 Mt) in 2014.

As discussed in Chapter 9, the total amount of steel required to complete the Assembly Hall building is about 5800 tonnes. However, the amount of steel erected during the timeframe of this study was 4747 tonnes, which excludes the crane gantry beams, gable frames, staircases, lift shaft as well as elevation cladding rails, wind posts and trimmers. The assessment in this chapter will therefore be limited to the 4747 tonnes erected during the case study.

Following the same principles established above, the Assembly Hall steel carbon emissions are approximately 7690 $tCO_2$ (1.62 x 4747 tonnes) for the cradle-to-gate boundary case and 4747 $tCO_2$ (1.0 x 4747 tonnes) for the fabrication phase. The overall carbon emission for the cradle to site boundary case is therefore 12437 $tCO_2$ (2.62 x 4747 tonnes).

As discussed in Section 8.5, delivery of steel only contributes to less than 7% of the cradle-to-site carbon figures. It is therefore estimated that the delivery of steel on the Assembly Hall contributed up to 871 $tCO_2$ (12437 x 0.07) for the boundary studied.

The steelwork data gathered during the case study on the fabrication and construct of the Assembly Hall frame is included in Appendices 1 to 3 and is analyzed in the following subsections.

## 10.2 *Programme – Case Study*

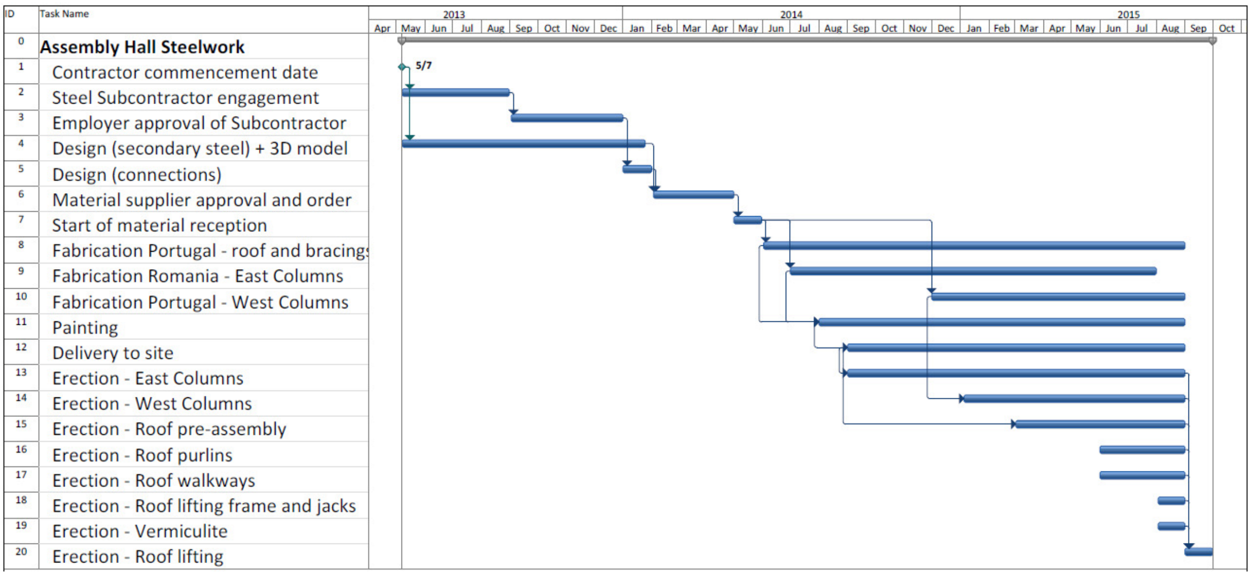



**Figure 10.1 Assembly Hall procurement, fabrication and erection outline programme**

Figure 10.1 above shows an outline programme for the procurement, manufacture and erection of the Assembly Hall steelwork. The following summary can be drawn from this schedule:

- The project commencement date was 7 May 2013, the day when the Contractor took charge of the site. It then took 4 months to get the steelwork Subcontractor contract awarded. The secondary steelwork calculations was prepared during the same period by the Contractor;
- The preparation and approval of the Subcontractor quality procedures took another 4 months to be approved. The design review on the secondary steelwork took place at the same time;
- The design and approval of connection calculations then followed, culminating in material suppliers being established and purchase orders placed in March 2014;
- The fabrication of the bracing and roof members (Portugal) started in June 2013 and the column plate girders (Romania) began in July 2013;
- A total of 4747 tonnes of steel was manufactured in 16 months and erected in 12 months.

Initially, the Subcontractor had estimated that it would take 14 months from ordering of material to completion of the erected frame on site. It can be concluded that this original plan was ambitious and would have only worked for an ideal situation involving a standalone steel frame with all input data available from the outset of fabrication activities. Confounding factors such as late variations, concreting co-activities and long distances between site and factories contributed to the delays encountered on site. Moreover, the Subcontractor lacked nuclear experience and the stringent requirements associated with this industry may have contributed to the initial underestimation. Some of these main issues are discussed below in a little more detail.

The critical path of the programme changed several times during erection, with material supply being the bottleneck for an extended period of time. The temporary barrier works, which were instructed when the fabrication of the steelwork had commenced, caused delays to the manufacture of the columns on the North elevation. In addition, the application of intumescent paint to some parts of the steel frame meant that the affected components had to remain in the workshop longer that had been initially anticipated.

Not only did the concreting of the box-outs introduce another trade to an already complex programme but this also caused the roof pre-assembly to start from the South end when it was originally planned to start from the North. Consequently, there was a substantial amount of completed steel components available in the temporary holding area on site that could not be erected straight off while the Subcontractor was now manufacturing to the revised construction sequence.

For a significant period, there were simultaneous works on the East elevation, West elevation, box-out concrete works and pre-assembly of the roof at ground level. As a result, the HSPC imposed co-activity restrictions for the safety of the operatives. The adverse impact of these restrictions on the erection schedule apparently forced the Contractor to introduce double and later triple shift working.

There were a few manufacturing defects on the steel components that slowed down progress, particularly at the beginning of the erection period. The most significant of these non-conformities were welding defects on the plate girders and intumescent paint damage during expedition. Where several notable defects appeared on the same component, the Contractor sent the component to a nearby factory for detailed repairs. Thus, the quality of the product was maintained at the detriment of progress on site.

## *10.3 Design – Case Study*

As describe in Section 8.3, the structural philosophy should be set right at the outset of the design process, taking into account cost, programme, quality, buildability and sustainability considerations. The principle should then be religiously followed, updated and improved as the works progress.

The review of the Assembly Hall structural calculations was not part of the case study. However, one part of the design that was apparent to the researcher was the large external column compared to the smaller internal column carrying all the crane loads. A closer look at the design revealed that the internal column was heavily utilized to carry the compressive loads from the cranes while the external column comfortably resisted the 60m high frame moments. As the inner and outer columns were braced together, consideration of a combined column to resist the frame moments could have provided robust and balanced column sizes, presumably reducing the overall combined weight. Unfortunately, the time schedule on this project was so restrictive that once a decision was taken, it was impossible to change it without causing major programme delays.

Construction methodology and sequence contribute to the carbon footprint of a building. On the Assembly Hall, approximately 8 tonnes of steel were used for the temporary frame used to lift the roof. Furthermore, temporary steel plates were welded to the plate girders in the factory to avoid warping of the permanent structure during the welding process. Additional temporary bracing was also added to the roof structure during pre-assembly because part of the permanent bracing was only installed after the roof was lifted to its final position. Although the design was accommodative enough to avoid unnecessary disassembly of these temporary elements, this steelwork was only required because of the construction methodology chosen by the Subcontractor and was not directly paid for by the Employer. As such, this temporary steelwork does not appear on the inventory included in the Appendices of this study.

Therefore, in addition to wastage, an allowance for temporary steelwork needed to be included in the carbon footprint calculations. For the Assembly Hall, considering the 8 tonnes of temporary steel over the total erected tonnage of 4747 gives a 0.2% allowance. The majority of the temporary steel, including the lifting frames, was eventually dismantled and could be used again on future projects or recycled by the Subcontractor. This also needed to be factored into the calculations using sensitivity analysis.

The application of intumescent paint in the factory needed to be checked against construction schedule before being instructed. The maximum dry film thickness of intumescent paint on the Assembly Hall was 3.0 mm and hence took significantly longer to dry when compared to the 150 microns required for corrosion protection. Indeed, the majority of the damaged areas were on the intumescent painted components, which evidently caused programme, cost, quality and environmental drawbacks.

As a compromise, intumescent paint was only applied to a few areas where there was a concentration of fire loads, including the vertical braced bay. A fire optimization study was then undertaken, with on-site application of vermiculite to areas that needed further protection.

### *10.4 Fabrication – Case Study*

The information shown in the following six tables is derived from the data in Appendices 2 and 3. The discussion has been broken down into the different types of components for ease of comprehension.

**Table 10.1: Column components – amount and weight**

| Type of component | Description | Amount | Girder Weight (kg) | Total Weight (kg) |
|---|---|---|---|---|
| HI1500-50-85*855 | Outer braced column | 40 | 2530766 | 3013091 |
| HI1500-45-70*825 | Outer column | 70 | | |
| HI675-45-50*675 | Inner column | 88 | | |
| PL | Splice plate | 1232 | - | 188864 |
| **Total** | | **1430** | | **3201955** |

From Table 10.1, nearly 80% of the total column steel weight was in the the plate girders (flange and webs) even before the stiffeners and connections plates were welded on, which themselves constitute another 14%. Thus, the 198 completed plate girders (14% of the components) made up 3013 tonnes of the column steelwork (94% of the weight). All the fabrication complexities and intricate welding lied in these heavy plate girders. Furthermore, a significant amount of resources and expertise were required to handle such heavy components in the factory, during transportation and on site. This manifested itself into more energy expended and carbon emitted.

The heaviest column plate girder on the Assembly Hall was at the first level and weighed in excess of 30 tonnes. It was built from two 855 x 85 mm thick flanges and a 1500 x 50 mm web. The girder was 15m high weighing 24 tonnes prior to the addition of the stiffener and connection plates. These plates were of various sizes with the heaviest being the 1.6 tonnes baseplate at 1900 x 1200 x 85mm thick. Not only did the plates add an extra 30% weight to the column section, but also brought complexity to the whole fabrication process. In some instances, temporary steelwork was required during the welding process to avoid warping effects.

Furthermore, eight splice plates of up to 1240 mm long, 1060 mm wide and 45 mm thick were required to link two column levels, which involved up to 150 No. M36 bolt groups. Together with the splice connections, the weight of this first level column component reached 41 tonnes.

**Table 10.2: Box-beam components – amount and weight**

| Type of component | Description | Amount | Total Weight (kg) |
|---|---|---|---|
| PL55*675 | Box girder | 22 | 101658 |

The box-beam is a horizontal plate girder that connects the outer and inner columns at about 38m above ground floor level, part of which cantilevers out to support the 50 tonnes runway beam. Thus, there was only one box beam per grid per elevation, giving a total of 22 components weighing 4.6 tonnes each as shown in Table 10.2. Although there was intricate welding involved between the flange and web elements, the box girder was self-supporting with regards to lateral torsional buckling and therefore did not need additional stiffeners like those added to the column plate girders.

**Table 10.3: Beam-bracing components – amount and weight**

| Type of component | Description | Amount | Total Weight (kg) |
|---|---|---|---|
| CHS | Circular hollow section (139.7 – 355mm diameter) | 618 | 213308 |
| SHS | Square hollow section (250x8mm and 300x10mm) | 320 | 268429 |
| RHS | Rectangular hollow section (300x100x10mm) | 20 | 26994 |
| HEA | EU wide flange beam (220-400mm deep) | 96 | 111601 |
| HEB | EU wide flange beam (300-500mm deep) | 266 | 150869 |
| PL | Splice plate (6 – 30mm thick) | 4447 | 82314 |
| **Total** | | **5767** | **853515** |

From Table 10.3 above, 90% of the total beam-bracings weight was made up from rolled profiles, with the rest being splice plates. As discussed in Section 8.4, there was significantly less effort and complexity on the fabrication of these components when compared to the plate girders. The manufacturing processes were limited to the cutting of the beam to required length and welding of the connection plates. Although the heaviest beam-bracing piece was about 7.5 tonnes, the majority of these components weighed less than a tonne thereby making them simple to handle in the factory and on site. Considering everything else constant, it was less environmentally damaging to work with rolled sections than plate girders in the factory.

The 4447 splice plates shown in Table 10.3 made up 10% of the weight but 75% of the components. This implies that relatively a larger part of the works, when compared with the columns, was on site where these plates were used to bolt the steel components together.

**Table 10.4: Roof components – amount and weight**

| Type of component | Description | Amount | Total Weight (kg) |
|---|---|---|---|
| CHS | Circular hollow section (168.3–219.1mm diameter) | 88 | 23192 |
| SHS | Square hollow section (300x10mm) | 76 | 69275 |
| HEA | EU wide flange beam (300-320mm deep) | 106 | 73810 |
| HEB | EU wide flange beam (320mm deep) | 132 | 173443 |
| PL | Splice plate (10–60mm thick) | 1212 | 64140 |
| **Total** | | **1614** | **403859** |

Table 10.4 above shows the amount of roof steelwork that was pre-assembled at ground level and lifted up to its final position in one piece. Essentially, the HEA and HEB formed the truss elements, SHS acted as ties between trusses and CHS were provided as diagonal bracing. Over 84% of the roof weight was built from hot-rolled sections that are relatively simple to fabricate. However, there was a large number of splice plates (75%) to be assembled on site.

**Table 10.5: Roof purlin components – amount and weight**

| Type of component | Description | Amount | Total Weight (kg) |
|---|---|---|---|
| HEA | EU wide flange beam (200mm deep) | 88 | 20190 |
| HEB | EU wide flange beam (240mm deep) | 134 | 105219 |
| IPE | Universal beam (140mm deep) | 10 | 612 |
| L | Rolled Steel Angle (100x10mm thick) | 139 | 524 |
| **Total** | | **371** | **126545** |

Although the purlins were considered as secondary steelwork, they were manufactured from hot-rolled steel sections as shown in Table 10.5. The Subcontractor's construction methodology required the roof cladding to be installed at ground level during roof pre-assembly. Each purlin spanned the full distance between trusses and only needed simple connections to angle cleats. There was very simple work involved in the fabrication and erection of these purlins.

Table 10.6: Roof walkway components – amount and weight

| Type of component | Description | Amount | Total Weight (kg) |
|---|---|---|---|
| HEA | EU wide flange beam (220mm deep) | 47 | 22487 |
| IPE | Universal beam (100, 220 and 300mm deep) | 99 | 36704 |
| **Total** | | **146** | **59190** |

Equally, the walkway steel shown in Table 10.6 was considered as secondary steelwork but manufactured from hot-rolled steel sections. Only the steel for the four walkways located on the bottom chord of the pre-assembled section of the roof is covered in Table 10.6 above. The walkway components also came in full span and needed simple connections.

Derived from the data in Appendix 2, Figure 10.2 below show the production curve for the steelwork erected during this case study.

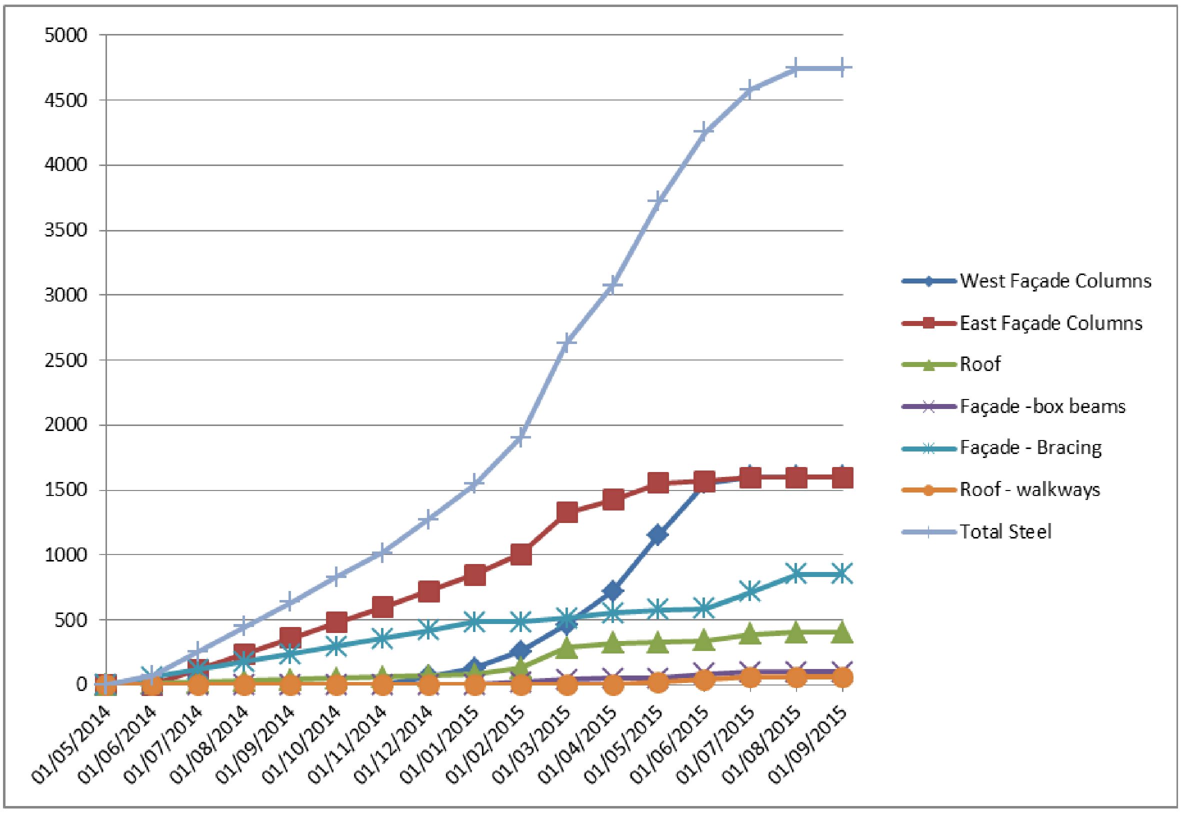



Figure 10.2: Production time frame of the Assembly Hall steelwork

In accordance with the construction sequence, the Portugal factory started with the fabrication of the roof and beam-bracing components whilst Romania factory manufactured the East façade columns. Figure 10.2 shows a slow start to the steel production in both factories but this was improved at the beginning of 2015 before it flattens out at the end of July when the focus shifted from production to erection.

One of the reasons for the slow start was the significant number of defects detected on the column components. The high level of scrutiny and frequency of inspections from the Employer representatives also contributed to the slow start, exacerbated perhaps by the Subcontractor's underestimation of the technical complexity of the project.

The weight of the column plate girders meant that huge amount of material was locked in a few elements. As the manufacturing progress was measured on completed elements, the speed of production was not apparent until the components started to come out of the production line. Furthermore, a defect on one column could hold up the completion of as much as 30 tonnes of steel.

The columns made up more than two thirds of the steel weight constructed during this study. It is apparent from the Figure 10.2 that the production of the column components was on the critical path. Whereas the fabrication of the other components was relatively constant throughout the manufacturing period, the column production needed to be improved significantly in order to mitigate further delays to the construction schedule. There was also a slight increase in the roof production when the construction sequence was altered to start from the South end. The production of the beam-bracings had to be slowed down in order to accommodate this acceleration.

The significant increase in production was also partly due to the fact that columns were now being manufactured in both factories. As the teething problems experienced in Romania were avoided by Portugal, the column production was much smoother and quicker at this stage. A number of Sub-subcontractors were brought in to help with the production of downstream components and the pre-assembly of the roof on site in order to allow the Subcontractor to concentrate on the columns and roof production.

Table 10.7 below shows the maximum and minimum periods that each of the seven components, excluding splice plates, spent in the factory. This is the time from start of fabrication to expedition as derived from Appendix 3.

Although some elements had to be temporarily stored in the factory while waiting for an appropriate delivery slot, these figures give a good indication of the fabrication periods for each component. More so for the column components that, due to the programme constraints on site, could not afford to be stored in the factory for too long. Besides, the columns were delivered as individual components or in pairs and so did not need to wait for many other components before being dispatched to site.

**Table 10.7: Maximum and minimum periods that components spent in the factory**

| Component type | Factory location | Maximum period (weeks) | Minimum period (weeks) |
|---|---|---|---|
| Column – without intumescent paint | Romania | 32 | 8 |
| Column – with intumescent paint | Romania | 41 | 15 |
| Column – without intumescent paint | Portugal | 11 | 5 |
| Column – with intumescent paint | Portugal | 16 | 8 |
| Box-beam | Portugal | 9 | 6 |
| Beam-bracing | Portugal | 57 | 4 |
| Roof | Portugal | 41 | 2 |
| Roof purlins | Portugal | 14 | 2 |
| Roof walkways | Portugal | 9 | 4 |

Table 10.7 confirmed that, for the fabrication of column components, more time was spent in Romania than in Portugal. It is likely that the lessons learned in Romania were effectively applied in the Portugal production that started 5 months later. This difference could be partly attributed to a variation in the quality of workmanship in these two factories.

The minimum periods in Table 10.7 correlate with the initial estimate made by the Subcontractor of 10 to 15 and 15 to 30 man-hours per tonne of simple and complex steel fabrication respectively. Considering two people working on a component at a time, the complex fabrication of a plate girder weighing 30 tonnes was estimated to take 6 - 12 weeks (30 tonnes x 15-30 hours / 2 workers / 7.5 hours a day / 5 days a week). As discussed above, the instumescent paint was an additional complexity and increased the fabrication periods. Assuming the simple fabrication to involve one person on average, a rolled profiles weighing 7.5 tonnes was expected to take 2 – 3 weeks (7.5 tonnes x 10-15 hours / 1 workers / 7.5 hours a day / 5 days a week).

Wastage produced in the factory was not part of this study but, as discussed in Section 9.8.4.3, this should have been traced and recycled.

## 10.5 *Expedition – Case Study*

From Appendix 2, the delivery of steel to site can be divided into two groups based on the manufacturing factory as shown in Table 10.8 below.

**Table 10.8: Amount of steel and distance travelled from factory to site**

| Factory | Amount of steel (tonnes) | Distance travelled to site (km) |
|---|---|---|
| Portugal | 3147 | 1500 |
| Romania | 1600 | 2300 |

All deliveries were carried out by road using heavy articulated vehicles. A review of the column components (excluding the splice plates) delivered from the Romania factory is presented in Table 10.9 below, as derived from the data in Appendix 3.

Over 1505 tonnes of steel were manufactured in Romania, constituting half of the column steelwork and about a third of the total amount considered in this case study. These 99 components (5 levels of the outer column and 4 levels of inner columns on 11 axes) were delivered in 73 truckloads, travelling the 2300 km to the site in France. The planning of the truck loads was somewhat simple as there were not a lot of possible permutations for these heavy elements. Owing to their bulkiness, only up to two column components could be contained in one delivery truck.

The heaviest inner and outer column components at Level 1 weigh over 13 and 30 tonnes respectively. Typically, the truck load distribution worked out to one external column or two internal columns as shown in Table 10.9, giving net weights between 23 and 31 tonnes per delivery. At Level 3, the inner and outer columns weigh up to 11 and 23 tonnes respectively. These were heavy enough to follow the same truck load distribution as for Level 1 with delivery weights ranging from 18 to 23 tonnes.

At Level 2, the heaviest inner and outer columns weigh about 9 and 18 tonnes respectively. Except for the heaviest columns in the braced Zone A which were delivered one at a time, there was more flexibility at this level as all other columns could be delivered in pairs. The truck loads ranged from 17 to 24 tonnes.

## Table 10.9: Column steel (excluding splice plates) delivery from the Romania Factory

| Index | Delivery Reference | Component Site Reference | Quantity | Weight (kg) | Column Level | Paint Scheme | Expedition Date |
|---|---|---|---|---|---|---|---|
| 1 | 300 | JF1-1; IF1-1 | 2 | 24632 | 1 | Without Intumescent | 24/09/2014 |
| 2 | 301 | JF1-2 | 1 | 23565 | 1 | Without Intumescent | 24/09/2014 |
| 3 | 302 | IF1-2 | 1 | 23619 | 1 | Without Intumescent | 26/09/2014 |
| 4 | 303 | HF1-1: GF1-1 | 2 | 24343 | 1 | Without Intumescent | 27/09/2014 |
| 5 | 304 | HF1-2 | 1 | 23420 | 1 | Without Intumescent | 27/09/2014 |
| 6 | 305 | GF1-2 | 1 | 23342 | 1 | Without Intumescent | 28/09/2014 |
| 7 | 306 | FF1-1; EF1-1 | 2 | 24289 | 1 | With Intumescent | 15/11/2014 |
| 8 | 307 | EF1-2 | 1 | 23359 | 1 | With Intumescent | 14/11/2014 |
| 9 | 308 | FF1-2 | 1 | 23359 | 1 | With Intumescent | 14/11/2014 |
| 10 | 309 | CF1-1 | 1 | 29538 | 1 | Without Intumescent | 14/10/2014 |
| 11 | 310 | BF1-1 | 1 | 30066 | 1 | Without Intumescent | 26/10/2014 |
| 12 | 311 | CF1-2; BF1-2 | 2 | 25976 | 1 | Without Intumescent | 28/10/2014 |
| 13 | 312 | JF2-1; JF2-2 | 2 | 23323 | 2 | Without Intumescent | 10/11/2014 |
| 14 | 313 | GF2-1; IF2-2 | 2 | 22992 | 2 | Without Intumescent | 13/11/2014 |
| 15 | 314 | DF1-2 | 1 | 23359 | 1 | With Intumescent | 14/11/2014 |
| 16 | 318 | HF2-1; HF2-2 | 2 | 22974 | 2 | Without Intumescent | 21/11/2014 |
| 17 | 319 | GF2-2; IF2-1 | 2 | 23002 | 2 | Without Intumescent | 24/11/2014 |
| 18 | 320 | DF1-1; AF1-3 | 2 | 25348 | 1 | With Intumescent | 24/11/2014 |
| 19 | 321 | CF2-1 | 1 | 17991 | 2 | Without Intumescent | 29/11/2014 |
| 20 | 322 | FF2-1; FF2-2 | 2 | 22974 | 2 | With Intumescent | 29/11/2014 |
| 21 | 323 | AF1-2 | 1 | 30093 | 1 | With Intumescent | 29/11/2014 |
| 22 | 324 | CF2-2; EF2-1 | 2 | 16797 | 2 | Without Intumescent | 02/12/2014 |
| 23 | 325 | DF2-1; EF2-2 | 2 | 22974 | 2 | With Intumescent | 02/12/2014 |
| 24 | 326 | BF2-1 | 1 | 18148 | 2 | Without Intumescent | 10/12/2014 |
| 25 | 327 | BF2-2; DF2-2 | 2 | 23322 | 2 | Without Intumescent | 11/12/2014 |
| 26 | 328 | AF2-2 | 1 | 18157 | 2 | With Intumescent | 08/01/2015 |
| 27 | 329 | JF3-2 | 1 | 18302 | 3 | With Intumescent | 10/01/2015 |
| 28 | 330 | AF2-4; JF3-1 | 2 | 18968 | 2/3 | With Intumescent | 10/01/2015 |
| 29 | 331 | IF3-2 | 1 | 18369 | 3 | With Intumescent | 15/01/2015 |
| 30 | 332 | HF3-2 | 1 | 18367 | 3 | With Intumescent | 16/01/2015 |
| 31 | 333 | HF3-1; IF3-1 | 2 | 19528 | 3 | With Intumescent | 16/01/2015 |
| 32 | 334 | GF3-2 | 1 | 18397 | 3 | With Intumescent | 26/01/2015 |
| 33 | 335 | FF3-2 | 1 | 18418 | 3 | With Intumescent | 04/02/2015 |
| 34 | 336 | FF3-1; GF3-1 | 2 | 19503 | 3 | With Intumescent | 04/02/2015 |
| 35 | 337 | EF3-2 | 1 | 18418 | 3 | With Intumescent | 10/02/2015 |
| 36 | 338 | DF3-1; EF3-1 | 2 | 19503 | 3 | With Intumescent | 13/02/2015 |
| 37 | 339 | DF3-2 | 1 | 18418 | 3 | With Intumescent | 13/02/2015 |
| 38 | 340 | JF4-2 | 1 | 18486 | 4 | Without Intumescent | 18/02/2015 |
| 39 | 341 | CF3-1 | 1 | 22541 | 3 | With Intumescent | 19/02/2015 |
| 40 | 342 | IF4-2 | 1 | 18549 | 4 | Without Intumescent | 20/02/2015 |
| 41 | 343 | FF4-2 | 1 | 18536 | 4 | Without Intumescent | 20/02/2015 |
| 42 | 344 | HF4-2 | 1 | 18546 | 4 | Without Intumescent | 20/02/2015 |
| 43 | 345 | GF4-2 | 1 | 18546 | 4 | Without Intumescent | 21/02/2015 |
| 44 | 346 | EF4-2 | 1 | 18536 | 4 | Without Intumescent | 25/02/2015 |
| 45 | 347 | CF3-2; BF3-2 | 2 | 21073 | 3 | With Intumescent | 27/02/2015 |
| 46 | 348 | BF3-1 | 1 | 22760 | 3 | With Intumescent | 27/02/2015 |
| 47 | 349 | AF3-4 | 1 | 10754 | 3 | With Intumescent | 03/03/2015 |
| 48 | 350 | AF3-2 | 1 | 22757 | 3 | With Intumescent | 03/03/2015 |
| 49 | 351 | DF4-2 | 1 | 18546 | 4 | Without Intumescent | 05/03/2015 |
| 50 | 352 | CF4-1 | 1 | 23129 | 4 | Without Intumescent | 11/03/2015 |
| 51 | 353 | BF4-1 | 1 | 23552 | 4 | Without Intumescent | 11/03/2015 |
| 52 | 354 | IF4-1; GF4-1 | 2 | 15539 | 4 | Without Intumescent | 15/03/2015 |
| 53 | 355 | JF4-1; JF5-1 | 2 | 22434 | 4/5 | Without Intumescent | 19/03/2015 |
| 54 | 356 | HF4-1; IF5-1 | 2 | 22603 | 4/5 | Without Intumescent | 20/03/2015 |
| 55 | 357 | FF4-1; FF5-1 | 2 | 22604 | 4/5 | Without Intumescent | 22/03/2015 |
| 56 | 358 | EF4-1; HF5-1 | 2 | 22604 | 4/5 | Without Intumescent | 25/03/2015 |
| 57 | 359 | EF5-1 | 1 | 14840 | 5 | Without Intumescent | 27/03/2015 |
| 58 | 360 | CF5-9 | 1 | 18269 | 5 | Without Intumescent | 29/03/2015 |
| 59 | 361 | BF5-1 | 1 | 18729 | 5 | Without Intumescent | 31/03/2015 |
| 60 | 362 | DF4-1; GF5-1 | 2 | 22603 | 4/5 | Without Intumescent | 03/04/2015 |
| 61 | 363 | DF5-1 | 1 | 14840 | 5 | Without Intumescent | 08/04/2015 |
| 62 | 364 | AF4-2 | 1 | 23557 | 4 | With Intumescent | 15/04/2015 |
| 63 | 365 | BF4-2; CF4-2 | 2 | 15941 | 4 | Without Intumescent | 18/04/2015 |
| 64 | 366 | AF5-2 | 1 | 18748 | 5 | With Intumescent | 25/04/2015 |
| 65 | 367 | AF4-3 | 1 | 8024 | 4 | With Intumescent | 08/05/2015 |
| 66 | 368 | AF2-1 | 1 | 17991 | 2 | With Intumescent | 13/05/2015 |
| 67 | 371 | AF1-1 | 1 | 29570 | 1 | With Intumescent | 21/05/2015 |
| 68 | 372 | AF1-4; AF2-3 | 2 | 21401 | 1/2 | With Intumescent | 22/05/2015 |
| 69 | 376 | AF3-3 | 1 | 10401 | 3 | With Intumescent | 29/05/2015 |
| 70 | 377 | AF4-4 | 1 | 7614 | 4 | With Intumescent | 30/05/2015 |
| 71 | 378 | AF3-1 | 1 | 22505 | 3 | With Intumescent | 25/05/2015 |
| 72 | 379 | AF4-1 | 1 | 23118 | 4 | With Intumescent | 06/06/2015 |
| 73 | 380 | AF5-1 | 1 | 18229 | 5 | With Intumescent | 24/07/2015 |
| **Total** | | | **99** | **1505624** | | | |

The heaviest inner and outer columns at Level 4 weigh about 8 and 24 tonnes respectively and they typically follow the same truck load distribution as for Level 1. In some cases, the inner columns were delivered together with Level 5 columns, which themselves weigh up to 19 tonnes. The truckloads range from 15 to 24 tonnes for both levels.

The column components on the North gable were affected by the temporary wall barrier and intumescent painting requirements, both of which were instructed to the Subcontractor when the fabrication had started. Consequently, the manufacturing and delivery sequence had to be adjusted to match. This resulted in a few truck loads, such as 349 and 377 in Table 10.9 above, being delivered with as low as 8 tonnes in order to maintain the erection schedule.

Table 10.9 only shows the weight of the column components and does not include splice plates, which were delivered with the lighter truckloads. For instances, 34 splice plates weighing 3.8 tonnes were delivered together with delivery reference 324, raising the total truck load from 16.8 tonnes shown in Table 10.9 to 20.6 tonnes.

In addition, the above table does not include a few columns sent to a factory local to the site for repairs as this constituted an insignificant proportion in terms of number of columns involved and distance travelled.

## *10.6 Erection – Case Study*

The erection of each column was carried out in a matter of hours (up to 6 hours) in spite of the difficulties and risks imposed by the handling of such huge weights.

The first column level involved the preparation of the HD bolts and provision of shims for alignment. The upper columns had to be joined to the lower columns using eight splice plates at each connection. With column forces as high as 19 MN compressive, 4 MN tensile, 3 MN shear and 5.5 MNm moments, the connections needed splice plates of up to 1240 mm long by 45 mm thick and 150 No. M36 bolts. For temporary stability, the bracing members had to be placed as soon as the vertical columns were erected.

As detailed in Section 9.8, the roof erection and was relatively simple as it was pre-assembled at ground level. This pre-assembly did not reduce the erection period required for the columns or roof. If anything, the individual periods may have increased slightly due to H&S requirements brought about by co-activities. However, the pre-assembly changed the construction sequence of the columns and roof from being in series to parallel. It also allowed manufacturing and erection activities to occur simultaneously.

The construction methodology needed to take a balanced view between fabrication and erection activities. From Section 10.3 above, it was established that 94% of the column plate girders weight was in 14% of the components whereas 90% of beam bracings weight was in 25% of the components. Thus, although the manufacture of plate girders was much complex as compared to the lighter hot-rolled components, there were relatively fewer connections to be done on site. Indeed, the erection of one 30-tonne column component was quicker than the erection of 30 bracing pieces weighing a tonne each.

When both the column and roof erection activities were at their peak, there was a steady increase of resources on site particularly from April to September 2015 as shown in Appendix 1.

Essentially, there was no steel wastage reported on site during erection. There were a few instances where little pieces of steel needed to be grinded off to ensure total fit between components but this was negligible in the overall scale of quantities involved. This waste was collected in the on-site re-cycling bins rather than taken back to the factories.

## *10.7 BCSA Carbon Footprint Tool Results*

The data from the case study, in Appendices 1 to 3 and as discussed in the above Section 10.2 to 10.6, was entered into the BCSA Carbon Footprint Tool. A simplified approach was taken as described in Section 7.3. The results of this analysis are included in Appendix 5 and summarized in Table 10.10 below.

From this table, the total carbon emission is given as 12,498,087 $kgCO_2$ from 4,747 tonnes of steel, giving an average figure of 2.63 $kgCO_2/kg$ of fabricated and erected steel. Considering an internal area of 5380 $m^2$ (93.9m x 57.3m internal dimensions), this works out to an overall emission figure of 2.3 $tCO_2/m^2$ for the Assembly Hall. According to Clark and Bradley (2013), the superstructure average embodied carbon for a typical office building is 0.22 $tCO_2/m^2$. Hammond and Jones (2011) estimate the average figure to be about 0.30 $tCO_2/m^2$ and the maximum to be 0.60 $tCO_2/m^2$.

**Table 10.10: Summary of results from the BCSA Carbon Footprint Tool – Simplified Approach**

| Hot-rolled products | | | | | | |
|---|---|---|---|---|---|---|
| Type | Supplier | Quantity (Tonnes) | Production impacts [1] (kgCO2) | Transport impacts [2] (kgCO2) | Total (production and transport) (kgCO2) | Percentage Contribution (%) |
| Plate | Romania | 1,600 | 3,961,716 | 386,246 | 4,347,962 | 35% |
| Plate | Portugal | 1,602 | 3,967,196 | 251,900 | 4,219,096 | 34% |
| Plate | Portugal | 102 | 251,733 | 18,210 | 269,943 | 2% |
| Tubes | Portugal | 509 | 1,234,320 | 81,943 | 1,316,263 | 11% |
| Sections | Portugal | 262 | 602,703 | 42,489 | 645,192 | 5% |
| Plate | Portugal | 82 | 203,832 | 15,175 | 219,007 | 2% |
| Tubes | Portugal | 92 | 224,350 | 15,175 | 239,525 | 2% |
| Sections | Portugal | 247 | 567,760 | 39,454 | 607,214 | 5% |
| Plate | Portugal | 64 | 158,828 | 12,140 | 170,968 | 1% |
| Sections | Portugal | 126 | 289,379 | 21,245 | 310,623 | 2% |
| Sections | Portugal | 59 | 135,916 | 12,140 | 148,056 | 1% |
| Angles and channels | Portugal | 1 | 1,203 | 3,035 | 4,238 | 0% |
| | **Total** | **4,747** | **11,598,937** | **899,150** | **12,498,087** | **100%** |

Table 10.10 above highlights that plate girders generally produced more emissions than rolled sections. However, the difference is so slight that in layman terms, carbon emissions can be derived from the amount of steel material processed without paying much attention to the type of the hot-rolled product.

## *10.8 Summary*

Essentially, a total of 4747 tonnes of the Assembly Hall steelwork was manufactured in 16 months and erected in 12 months, giving an average manufacturing and erection rate of 297 and 396 tonnes per month respectively.

Table 10.11 below shows a comparison of carbon emissions estimated from existing literature in Section 10.1 and those from the BCSA footprint tool in Section 10.7 for the 4747 tonnes on the Assembly Hall.

**Table 10.11: Comparison of carbon emissions from literature and BCSA Carbon Footprint Tool**

| Carbon Impact | Existing Literature ($tCO_2$) | Case Study ($tCO_2$) |
|---|---|---|
| Production | 7690 | 11440 (=11599-159) |
| Fabrication | 3876 (=4747-871) | |
| Transport | 871 | 899 |
| Erection | - | 159 |
| **Total** | **12437** | **12498** |

The table shows that the results from the case study and BCSA footprint tool correlate well with existing literature. However, there are some slight variances in the boundary considered in the calculation. The figure from literature is from cradle to site while the BCSA figure includes erection impact. In addition, the boundaries for the production and fabrication are not well defined such that the transport impact between these processes may have been double counted or discounted.

In the BCSA tool, the transport impact for angles and channels is not correctly represented as the small quantities involved did not require a dedicated delivery. However, the tool required that a minimum of 1 delivery truck be entered. In spite of this anomaly, the impact is close enough to that from existing literature (899 $tCO_2$ compared to 871 $tCO_2$).

The average carbon emission for the Assembly Hall structure is estimated to be 2.63 $kgCO_2/kg$ from production to end of the erection phase of the 4747 tonnes of steel considered in this research. The recyclability of steel was taken into consideration through sensitivity analysis. The figure from existing literature is 2.62 $kgCO_2/kg$ for the cradle-to-site boundary case, thus excluding the erection works.

It is difficult for manufacturers to justify spending time and effort on processes that are perceived not to be contributing to revenue. However, it has been established that collecting data for carbon footprint calculations should not be a burden for steel contractors. Indeed, most of the required data is readily available as a schedule in the 3D models (such as Tekla) used by steel contractors to detail their projects. Other relevant information is available on documents such as electricity bills or waste collection invoices. Thus, the collection of data and the calculation of carbon footprint can easily be integrated in the company systems.

This research is expected to help manufacturers identify opportunities for carbon footprint improvements in their factories. For example, it has been established that shot-blasting contributes to roughly 86% of the energy used in the factory. By simply switching off such machines when not in use, significant reduction in carbon emissions can be achieved.

# 11 Conclusion

Sustainable practices discourage irresponsible use of natural resources and emission of GHG into the atmosphere. In order to comply with the regulations, 2050 emissions need to be reduced to at least half of the 1990 figure. Considering that steel production is predicted to have doubled by then, this is a tall order even with the significant improvements currently being pursued by the steelmaking industry. Despite the low emissions produced downstream of the liquid metal phase, it is important that efficiency in every process of the steel life cycle is improved. The purpose of this research was to identify the environmental impact hotspots in the life cycle of steel used in non-residential buildings and understand the precursors of the GHG emissions at each stage thereby providing the background information necessary to propose a robust strategy to carbon footprint improvement.

Sustainable development has been prominent in the building construction industry for a few decades now. With a number of interlinked problems that need to be addressed simultaneously, and a lack of shared understanding, progress has been slow. The long term effects of GHG emissions are only predictions and, therefore, there is uncertainty in the set levels of control. This is exacerbated by the lag that exists between the cause and consequence of any environmental process.

Furthermore, there are uncertainties in the existing carbon footprint databases. The main source of environmental data is the material producing industry, which is naturally bound to protect its interests and may inadvertently manipulate information in order to support the expansion of its business. Companies are unwilling to reveal data that may compromise their unique advantage over competitors and this makes it difficult for governments, which are informed by the industry, to set clear targets and priorities.

Nevertheless, there have been significant developments in the way we measure and record the environmental performance of buildings through LCA and LCI tools. A considerable amount of energy savings and carbon footprint reductions are being made through the implementation of environmental assessments tools. All building projects ought to allow for sufficient time and budget to explore carbon reduction opportunities at the outset of the design stage. This early involvement will enable a methodical and targeted solution to carbon reduction that can be included in the design without major cost and programme implications.

This is not to say that there is no more work to be done to improve the transparency of background environmental impact databases and carbon footprint calculations. For steel, the steelmaking industry is making unprecedented effort to document the carbon footprint of steel and making it readily available to all the industries including construction.

A pragmatism approach was adopted in this research as the project largely involves the collection of narrative data from existing literature and construction industry. A multi-method qualitative methodology was employed, comprising constructive research and a subordinate case study to collect data from the industry.

The first part of the research involved a detailed literature review of existing knowledge. The research showed that the steel industry is well-organised and the efforts being made by the different stakeholders are being co-ordinated by associations such as Worldsteel and UK Steel. The global data collected by these associations is well published and the derived average embodied carbon coefficients are being used worldwide in many LCA and LCI databases.

The literature review also highlighted that, for the steel building industry, there is lack of complete records downstream of the production phase. No systematic co-ordination of researches such as the one covered in this thesis. Although Worldsteel collects data from some manufacturers (across all sectors and not limited to the construction industry), the data is not as extensive as that gathered for the production phase. This is because the manufacturing industry is saved by many but small companies.

The ICE database was used in this research to represent average construction EC emissions for part of the steel lifecycle. The average EC emission coefficient considered for the production phase was 1.62 $kgCO_2/kg$ and that for the manufacturing phase was 1.0 $kgCO_2/kg$. The overall cradle-to-gate EC emission coefficient was therefore considered to be 2.62 $kgCO_2/kg$, which is assumed to include the transportation impact.

The process behind each phase of the steelwork lifecycle was reviewed in detail in a bid to identify hotspots that have the most environmental impact. Improvement suggestions were proposed where available, particularly for the manufacturing and design phases. These suggestions include simple initiatives such as switching off equipment when idling to save energy, the use of optimisation software before ordering material to minimise waste and the utilisation of just-in-time trading software to avoid site deterioration of material and double handling.

To verify the accuracy of the existing aggregated average figure, a case study was conducted on a real steelwork building, focusing on the manufacture, transportation (to site) and erection phases. This data alone, as detailed in Chapter 9 and in Appendices 1 to 4, is invaluable to the steel and construction industry as it can be analysed in many different ways. The LCI databases such as ICE can make use of the data collected through the case study in order to improve or complete its database in future.

An analysis of the quantitative data from the case study was performed to evaluate the carbon footprint of the steel lifecycle phases under study. The average carbon emission coefficient for the Assembly Hall structural steelwork was found to be 2.63 $kgCO_2/kg$ of erected steel and 2.3 $tCO_2/m^2$ of internal floor area for the cradle to end of construction boundary case.

The findings of this research should assist designers, fabricators and contractors understand the drivers of their emissions. Most importantly, it should provide assurance to manufacturers that collecting carbon footprint data does not have to be taxing. The data collected for the case study was no different to the information that contractors produce for their daily activities.

## *11.1 Recommendation*

Environmental issues need to be considered in conjunction with economic and social impacts. Steel material costs may be as low as 6% of the final value of a building, with the rest of the money from the sale of the end product paying for the wages of over 2 million people that the industry employs across the globe. As such, the environmental impact caused by steel manufacture may be outweighed by the social and economic benefits that it provides. Currently there is no real substitute for steel and, therefore, the reduction in GHG emissions can only come from improvements to the production, manufacturing, design, construction and recycling processes. An aggressive approach to these improvements, together with reductions in demand achieved through material efficiency, may help to meet the 2050 carbon targets.

Steelmaking is a mature industry with research on carbon footprint improvements well-funded and underway. Steel itself is a durable material whose products often outlive their design life. In the UK, steel is recovered more than any other construction material and can be re-used with minimum further processing. Scrap metal and other steel by-products have a well-established market worldwide, which helps to minimise the primary extraction of non-renewable resources, reduce GHG emissions and divert waste away from landfills. As a consequence, this recovery should be improved worldwide and extended to those elements in the ground.

There is a realisation that designers, fabricators and contractors should include carbon and energy specifications and calculations in the Operating and Maintenance (O&M) manuals to enforce the proper use of buildings. Perhaps an evaluation programme should be enforced to study how well buildings perform in operation against their design criteria. This will help to record building user behaviours that, in turn, can be considered when designing sustainable buildings in future.

Other than the data produced by the Subcontractor to respect its contractual obligations, no additional data was requested for the carbon footprint studies. Therefore, manufacturers need to be encouraged to include carbon footprint studies as an integral part of their reporting systems and to openly report on the mass and energy flows of the materials they process at least once a year.

A haphazard approach to low embodied carbon assessment often ends up imposing significant costs and technical difficulties on a project. Targeted solutions can be followed if this assessment is carried out at the outset of the design process. Future research should look at developing embodied carbon calculations for alternative structural schemes for ease of assessment in the early stages of building projects. This carbon labelling of products can be extended to materials provided by the services and architectural disciplines.

It is often demand that drives supply. Although the UK is no longer a major steel producer, it still uses a significant amount of steel. National emissions should therefore be based on consumption rather than production figures in order to encourage an honest approach to carbon footprint reduction.

Once the carbon footprint of a company, project or product is established, it then needs to be managed. This involves identifying opportunities where major environmental impacts can be reduced in a cost-effective manner. A reduction in carbon may just need a change in behaviour such as switching off the sand-blasting machine when it is not in operation. Therefore, a carbon management plan is best developed with the contribution of those operatives on the ground.

## *11.2 Contribution to knowledge*

Sustainability is a well-researched subject but its complexity and a lack of shared understanding have resulted in gaps in available information. The information produced by this research builds on the existing knowledge and provides an improved understanding of carbon emission of steel structures in the built environment. Some of the areas that this research has directly contributed to knowledge include:

1. The data from the case study is considered a contribution to knowledge in itself as it provides a better understanding of real steel buildings. Although this research focused on carbon footprint, the raw data can be analysed in other different ways (e.g. construction, design and fabrication) by future researchers;

2. The provision of new aggregated data that complements existing information in the industry and improves the accuracy and comprehension of GHG emissions. The BCSA Carbon Footprint tool was employed to calculate this new data from the disaggregated data collected through the case study;

3. The research informs steel manufacturers, contractors and designers on the GHG emissions associated with their business activities;

4. The identification of potential opportunities for carbon footprint reduction that are available to steel manufacturers, contractors and designers, particularly those improvement areas that have the most carbon reduction opportunities at relatively low cost;

5. The identification of areas that need further research.

# Appendix 1: Design, manufacture and erection activities on the Assembly Hall

This appendix tabulates the design, manufacture and erection activities from the commencement date to completion of the roof installation of the Assembly Hall

## Contents

**Table A1-01: Design, manufacture and erection activities from Commencement Date to completion of the roof installation**

| Month Ending | Design and Approvals | Subcontractor and Materials | Column Construction | Roof Construction | Site Epuipment |
|---|---|---|---|---|---|
| 31/05/2013 | Commencement Date 07/05/2013, main Contractor mobilisation started;<br>Documentation (QA, baseline programme, etc.) submitted for Engineer approval. | | | | |
| 28/06/2013 | Contractor review of input data (received on 21/03/2013) and queries raised and alternatives suggested. | Tender returns for the steelworks subcontract received by Contractor. | | | |
| 31/07/2013 | Basis of design for finishes submitted for Engineer review. | Tender returns under Contractor evaluation. | | | |
| 30/08/2013 | Basis of design for secondary steelwork submitted and refused by Engineer -update necessary. | The Steelwork Subcontractor awarded by the Contractor. | | | |
| 29/09/2013 | Construction design package being updated by Contractor following Engineer comments. | Documentation for the Employer approval of Subcontractor under preparation. | | | |
| 31/10/2013 | Construction design drawings and calculation notes delivered for Engineer assessment. | Documentation for the Employer approval of Subcontractor submitted. | | | |
| 30/11/2013 | Package for the secondary steel Manufacture Readiness Review (MRR) refused by Engineer. | Steel subcontractor approval form rejected by Engineer - more supporting evidence requested. | | | |
| 31/12/2013 | Package for the secondary steel MRR resubmitted for review. | | | | |
| 31/01/2014 | Comments on the MRR for secondary steel received by Contractor. | Subcontractor accepted by Employer; Material Submittal Form and mills for the primary Steel structure accepted by the Engineer,supply of raw material to commence. | | | |
| 28/02/2014 | Connection calculation report submitted for Engineer review. | | | | |
| 31/03/2014 | MRR for secondary steel yet to be closed;<br>A number of calculation documents still refused. | Purchase order of the raw material (pipes, plates and profiles) placed. | | | |
| 30/04/2014 | Fire intumescent coating instructed on part of the structure;<br>Roof temporary opening and maintenance platform instructed. | Subcontractor preparing all the manufacturing procedures and methodology. | | | |
| 31/05/2014 | Engineer assessment of primary steel calculation notes received by Contractor. | Raw material reception started in the factories. | | | |
| 30/06/2014 | Secondary steel reports approved and first set of execution drawings submitted for Engineer assessment;<br>Fire optimisation study basis of design submitted for Engineer review. | Manufacturing of the steel components authorised to commence - columns in Romania and bracings in Portugal. | | | |
| 31/07/2014 | Contractor submitted the hoist beams and temporary wall barrier design for Engineer assessment. | Painting works authorised to start on 31 July 2015. | | | |
| 31/08/2014 | Engineer assessment of the hoist beams and temporary wall barrier delivered to the Contractor. | Manufacturing continued in Portugal ( roof and beam-bracings) and Romania (East columns);<br>Painting in the factory started at the end of August. | | | |
| 30/09/2014 | All documents now accepted (with comments) by Engineer except for the gantry crane. | Inspection of the Romania and Portugal factories by the Employer team;<br>First beam-bracings delivery from Portugal received on site on 19 September 2015;<br>First column delivery from Romania received on site on 24 September 2015. | Preparation of HD bolts and first stage grouting has started;<br>East Elevation - First L1 column (13.A internal) erected on 25 September 2015;<br>Four columns on axes 13.A and B erected this month working with a crawler crane from the outside of the building. | | 1 crawler crane;<br>1 cherry picker. |
| 31/10/2014 | Temporary wall barrier requirements relaxed;<br>Hoist beam documents updated by Contractor;<br>Engineer acceptance of the box-out package received by contractor. | Manufacturing continued in Portugal ( roof and beam-bracings) and Romania (East columns);<br>East L1 columns with intumescent paint being manufactured in Romania. | Preparation of HD bolts and first stage grouting in progress;<br>East Elevation - Ten L1 columns erected on axes 13.A-D , H and I. | | 1 crawler crane;<br>1 cherry picker. |
| 30/11/2014 | Contractor started to work on the roofing and cladding design;<br>All documentation for welding repairs to East columns 13.A and B has been prepared. | Manufacturing continued in Portugal ( roof and beam-bracings) and Romania (East columns);<br>All East L1 columns with intumescent paint delivered from Romania to site except for axis 13.K;<br>East L2 columns on axes 13.A-D delivered from Romania to site. | East Elevation - L1 columns erected on axes 13.A-I and J partially; Bolt tightening and torque between columns progressing;<br>West Elevation - preparation of HD bolts and first stage grouting has started. | The box-out works authorised to start;<br>Cutting of existing reinforcement in the large box-outs B1 and B5 has started. | 1 crawler crane;<br>2 cherry pickers. |

**Table A1-01: Design, manufacture and erection activities from Commencement Date to completion of the roof installation**

| Month Ending | Design and Approvals | Subcontractor and Materials | Column Construction | Roof Construction | Site Epuipment |
|---|---|---|---|---|---|
| 31/12/2014 | Temporary barrier instructed to the Contractor;<br>Engineer assessment of box-out reinforcement received by Contractor - package update required. | Manufacturing continued in Portugal ( roof and beam-bracings) and Romania (East columns);<br>The manufacturing of columns in Portugal started this month;<br>East L2 columns on axes 13.A-I delivered from Romania to site. | East Elevation - All columns on L1 erected except for column 13.K; Welding repairs on columns 13.A and B completed; Bolt tightening and torque also completed; Second stage grouting started on 10/12/2014 and axes 13.C, D, H, I (internal) and J (internal) completed; Column L2 authorised to start on 17/12/2014 and columns 13.C and D completed;<br>West Elevation - preparation of HD bolts and first stage grouting in progress. | Cutting and cleaning of existing reinforcement in the large box-outs B1 and B5 in progress. | 1 crawler crane;<br>2 cherry pickers. |
| 31/01/2015 | Interface details between columns on axis 13.K and the temporary wall barrier resolved by Contractor;<br>First box-out package re-submitted to the Engineer for approval;<br>Roofing subcontractor approval form submitted;<br>Cladding sample issued for Engineer assessment. | Manufacturing continued in Portugal (West columns, roof and beam-bracings) and Romania (East columns);<br>The first L1 columns on axes 13.A-C delivered from Portugal to site;<br>Manufacture of box-out anchors started. | East Elevation - Second stage grouting completed; All columns upto L2 erected except for column 13.K; Bolt tightening and torque yet to be completed;<br>West Elevation - preparation of HD bolts and first stage grouting completed; L1 columns on axes 13.A-C erected. | | 1 crawler crane;<br>2 cherry pickers. |
| 28/02/2015 | Metalworks material approval submitted for Engineer acceptance;<br>Cladding and roofing Subcontractor QA and execution documents submitted for Engineer assessment. | Manufacturing continued in Portugal (West columns, roof and beam-bracings) and Romania (East columns);<br>A custom built workshop for paint touch-up erected on site;<br>Storage area to the West and South of the assembly building improved by placement of well-compacted gravel. | East Elevation - columns at L3 erected on axes 13.D, E (internal), F (internal) and G; All L3 columns are intumescent painted;<br>West Elevation - columns at L1 erected on axes 13.A, B(external), C, D and E. | Reinforcement cutting exercise for the box-outs has completed and cleaning in progress;<br>The first delivery of anchors received on site. | 1 crawler crane for East façade;<br>1 mobile crane for West façade (last week of the month);<br>2 cherry pickers. |
| 31/03/2015 | Execution drawings for the roof submitted for Engineer review;<br>Roof cladding under design by Subcontractor;<br>Temporary wall barrier design submitted for Engineer review;<br>Execution drawings for columns on axis 13.K with the temporary barrier interface details submitted for Engineer review;<br>Airtightness basis of design submitted for Engineer review;<br>Handrail material for the roof walkways approved by Engineer;<br>Roofing and cladding subcontractor QA documents approved by Engineer. | Manufacturing continued in Portugal (West columns, roof and beam-bracings) and Romania (East columns);<br>Fabrication of roof walkway open grid floor launched;<br>Storage area on the East of the assembly building was improved by placement of well-compacted gravel. | East Elevation - all columns at L3 erected except for column 13.A-C and 13.K; All L3 columns are intumescent painted. Columns 13.A-C are affected by intumescent damages detected on site and they were sent to a Subcontractor workshop in Avignon for repairs; Minor intumescent paint touch ups were repaired in the workshop on site; 13.K is affected by the temporary wall barrier;<br>West Elevation - all columns upto L1 erected except for column 13.I (external), J and K. | The pre-assembly of the roof started at ground level and Axes 13.B and C completed;<br>Reinforcement placement on all box-outs complete bar B1, B3 and B4. | 1 crawler crane for East façade;<br>1 mobile crane for West façade;<br>2 cherry pickers. |
| 30/04/2015 | All documents now accepted (with comments) by Engineer except for the gantry crane and hoist beam;<br>Engineer acceptance of the temporary wall barrier design (gable facade 13.K) delivered to the Contractor;<br>Engineer acceptance of the airtightness basis of design delivered to the Contractor;<br>Cladding design (mock-up) submitted to Engineer for acceptance;<br>Execution design of gable elevation 13.A under preparation by Subcontractor;<br>Details of elevational cladding mock-up submitted for Engineer review. | Manufacturing continued in Portugal (West columns, roof and beam-bracings) and Romania (East columns);<br>All East columns fabricated except for axis 13.K;<br>68No West columns fabricated of which 56 are all welded and 43 are painted;<br>The fabrication of the columns on 13.K, affected by temporary wall barrier has started;<br>All primary roofing steelwork is on site except for axis 13.A and K, affected by gable elevations;<br>Roof walkway open grid floor and handrail manufacture started;<br>Order for roofing materials placed accept for insulation. | East Elevation - all columns up to L3 erected except for column 13.K; 9No L4 columns also erected; Progress on a number of internal L4 columns affected by welding defects detected on site;<br>West Elevation - all columns up to L1 erected except for columns 13.J and K; 10No L2 columns also erected.<br>Double shift (7am to 4pm for columns and 1pm to 10pm for roof) introduced after Easter to avoid co-activities in the same area; During the overlapping period (1pm-4pm), the column team was only allowed to work on bolt tightening, alignment and paint touch-up with no lifting or bolt placement; Only one shift on Saturdays. | All trusses from 13.B-E (complete) and 13.F-G (partial) are pre-assembled on the ground.<br>For H&S reasons, | 1 crawler crane for East façade;<br>1 mobile crane for West façade;<br>1 mobile crane for the roofing;<br>3 cherry pickers. |
| 31/05/2015 | Airtightness study by Contractor in progress;<br>Louvre design by cladding Subcontractor in progress;<br>Execution design of gable elevation 13.A accepted by Engineer. | Manufacturing continued in Portugal (West columns, roof and beam-bracings) and Romania (East columns);<br>All East columns fabricated except for axis 13.K;<br>90No West columns fabricated of which 71 are all welded and 56 are painted;<br>The fabrication of the columns on 13.K affected by temporary wall barrier continuing - L1 and L2 columns now delivered to site;<br>All primary roofing steelwork is fabricated and delivered to site except for axis 13.A and K, which is affected by gable elevations;<br>Roof walkway open grid floor and handrail manufacture continuing;<br>Fabrication of gable elevation 13.A and purlins started. | East Elevation - all columns up to L4 erected except for column 13.K and 2No impacted by non-conformity reports (13.H and I internal); A clash between a L4 inner column and bracing resolved by reducing splice plate and removing non-structural welds;<br>West Elevation - all columns up to L2 erected except for column 13.K;<br>Double shift working continued. | All trusses from 13.B-E (complete) and 13.F-J (partial) are pre-assembled on the ground;<br>First concrete box-out poured to allow roof pre-assembly at ground level. | 1 crawler crane for East façade;<br>1 mobile crane for West façade;<br>1 mobile crane for the roofing;<br>3 cherry pickers. |

**Table A1-01: Design, manufacture and erection activities from Commencement Date to completion of the roof installation**

| Month Ending | Design and Approvals | Subcontractor and Materials | Column Construction | Roof Construction | Site Epuipment |
|---|---|---|---|---|---|
| 30/06/2015 | Fire optimiastion study completed by Contractor;<br>Airtightness design completed for the cladding;<br>Smoke study for the definition of louvres on the elevation to be completed by Engineer;<br>Sliding door basis of design approved by Engineer;<br>Bearing suport design received from Engineer;<br>Roof lifting operations presented by Contractor on 05/06/2015;<br>One of the Level 2 Subcontractors for the fabrication of bearings was approved. | Manufacturing continued in Portugal (West columns, roof and beam-bracings) and Romania (East columns);<br>All East columns fabricated except for axis 13.K;<br>All West columns fabricated except for four at L5;<br>Half of the truss ends that are part of the columns have been delivered to site;<br>All primary and secondary (purlin) roofing material fabricated and delivered to site except for axis 13.A and K;<br>All walkway secondary steelwork for the roof now on site;<br>Roof walkway open grid floor manufacture completed and handrail manufacture continuing - first batch received on site. | East Elevation - all columns up to L4 erected except for column 13.K; L5 erection to start in July;<br>West Elevation - all columns up to L3 erected except for column 13.A and K; All column up to L3 have been delivered to site;<br>Double shift working continued (facades columns in the morning and roof and bolt tightening in the afternoon). | All trusses from 13.B-G (complete) and 13.H-J (partial) are pre-assembled on the ground;<br>A temporary structure was erected to bridge the large boxout between 13.I -H and allow the roof pre-assembly to continue; The smaller concrete box-outs were poured to allow axes 13.F-H to be completed;<br>Purlin installation started at the beginning of June;<br>Roof cladding installation started on 22/06/2015 - decking between axes 13.B-E already complete; Insulation and membrane also started; Co-activities - roofing work above deck and secondary steelwork below deck. | 1 crawler crane for East façade;<br>1 mobile crane 450Tn for West façade;<br>1 mobile crane for the roofing;<br>5 cherry pickers;<br>2 forklift;<br>1 scissor lift 10m. |
| 31/07/2015 | Documentation for the lifting operation under final review by all parties. | Manufacturing continued in Portugal; manufacturing in Romania completed and all columns delivered to site;<br>All primary steel on site except 9No beam-bracings for gridlines 13.A-C;<br>All roof steelwork delivered to site except for a few purlins on gridline 13.K;<br>Temporary lifting frames under production by 3No. Level 2 Subcontractors and expected on site begining of August;<br>The manufacture of the crane gantry beam, originally planned for Romania, was authorised to start on 24/07/15 in Portugal (by Subcontractor with the help of two other Level 2 subcontractors in order to maintain programme);<br>Material for the bearing supports ordered and expected in the factory (of 3No Level 2 Subcontractors) early August. | East Elevation - all columns up to L5 erected except for column 13.K which is at Level 3; tower crane C3 used for 13.K in addition to mobile cranes; site weld repair of 7No L5 columns carried out; roof truss ends installed for 4 columns;<br>West Elevation - all columns up to L4 erected except for column 13.K which is at Level 3; column 13.K material (L4 and L5) on site; tower Crane C4 used for 13.K in addition to mobile cranes;<br>A 3rd night shift for bolt tightening started 21/07/2015. | All members, including purlins and walkway beams, are pre-assembled on the ground except for axis 13.A and K;<br>All metalworks (handrails, floor grids) received on site;<br>Roof cladding (deck, insulation and membrane) installed between 13.B-I including smoke exhausts. | 1 crawler crane for East façade;<br>1 mobile crane 450tn for West façade (double shift);<br>1 mobile crane for the roofing;<br>6 cherry pickers;<br>2 forklif;<br>1 scissor lift 10m. |
| 31/08/2015 | Fire optimisation study awaiting Engineer review;<br>All document related to the roof lifting operation accepted by Engineer;<br>Execution drawings of wind posts, staircases and façade walkways under preparation by Contractor. | Manufacturing continued in Portugal although there was a maintenance shutdown for 2 weeks - secondary steel manufacture continued;<br>Primary steel - the last 9No facade beams for gridlines 13.A-C received on site;<br>Secondary steel - the last few purlins for gridline 13.K received on site;<br>All temporary lifting frames received on site;<br>The cutting of the gantry beam material started at the end of August (Subcontractor Level 1- East 750t on axes 13.A -K and 50t 13.A - F; Subcontractor Level 2 - East 50t on axes 13.G - K; West all 750t and 50t beams);<br>Bearing support material received in the factory (of 3No Level 2 subcontractors) by mid August and fabrication launched at the end of August. | East Elevation - all columns up to L5 erected - part of the roof erected with the columns only missing on axes 13.J and K; temporary steel for the roof lifting operation nearly complete -pending only on axes 13.J and K; final torque and topographic checks of L5 columns started;<br>West Elevation - all columns up to L5 erected (last one on 31/08/2015) - part of the roof erected with the columns only missing on axes 13.J and K; temporary steel for the roof lifting operation nearly complete -pending only on axes 13.J and K; final torque and topographic checks of L5 columns started;<br>Secondary steel structure for elevational cladding sample erected;<br>3 shift working in operation, the 3rd shift at night for bolt tightening. | All members, including secondary (purlins and walkway beams) installed;<br>All tertiary steelwork (handrails, floor grids) installed except parts of axes 13.A and 13.K;<br>All roof decking installed, including smoke exhausts - insulation and membrane to be finalised on axes 13.A and 13.K;<br>Vermiculite application to axis 13.J-K has started - mesh 100% and form 85% complete;<br>Jack and strand installation 50% complete (60% on the East and 40% on the West);<br>four out of six hydraulic pumps installed on the roof walkways, including the associated electrical boards; final checks of temporary and permanent steel by Contractor, Engineer and Independent Checker have started. | 1 crawler crane for East façade (double shift);<br>1 mobile crane 450Tn for West façade (double shift);<br>5 cherry pickers of 70m reach (double shift);<br>1 cherry picker of 58m reach;<br>1 cherry picker of 42m reach;<br>1 cherry picker of 32m reach;<br>2 forklift;<br>3 scissor lift 10m. |
| 30/09/2015 | All disciplines at execution design stage. | The fabrication of the crane gantry beams continued in Portugal focusing on the 750tonnes beams - welding started early September;<br>The fabrication of the bearing supports by 3No Subcontractors continued with 18% of the bearings machined already;<br>The manufacture of wind posts, walkways and staircases started;<br>First delivery of the South façade (axis A) steelwork received on site. | All column missing elements completed on both elevations, including bolt tightening;<br>Temporary steel structure finished in time for the roof lifting. | Vermiculite installation and final coat completed;<br>Roof insulation and membrane completed;<br>Missing walkway steelwork on gridlines A and K completed;<br>The installation of the lifting equipment completed;<br>Roof successfully lifted from the 9th to the 11th of September 2015;<br>Permanent roof connections started;<br>Work on the remaining box-outs started as soon as the roof was lifted. | 1 crawler crane for East façade (double shift);<br>1 mobile crane 450Tn for West façade (double shift);<br>4 cherry pickers of 70m reach (double shift);<br>1 cherry picker of 58m reach;<br>1 cherry picker of 32m reach;<br>2 forklift;<br>3 scissor lift 10m. |

# Appendix 2: Quantities of steel fabricated for the Assembly Hall

This appendix provides monthly fabricated steel quantities for the Assembly Hall. All steelwork is fabricated in Portugal unless noted otherwise.

## Contents

### Table A2-01: West facade column steelwork

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) | |
|---|---|---|---|
| 30/11/2014 | 0 | 0.000 | |
| 31/12/2014 | 4 | 64.083 | * |
| 31/01/2015 | 8 | 128.167 | |
| 28/02/2015 | 16 | 256.333 | |
| 31/03/2015 | 29 | 464.604 | |
| 30/04/2015 | 45 | 720.938 | |
| 31/05/2015 | 72 | 1153.500 | |
| 30/06/2015 | 97 | 1554.021 | |
| 31/07/2015 | 100 | 1602.084 | |

*    Steel quantity is extrapolated from the given figures
** Total quantity of box-girders before the addition of stiffeners and connection plates is 1265.383 tonnes

### Table A2-02: East facade column steelwork (fabricated in Romania)

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) | |
|---|---|---|---|
| 30/06/2014 | 0 | 0.000 | |
| 31/07/2014 | 7.5 | 119.990 | * |
| 31/08/2014 | 15 | 239.981 | * |
| 30/09/2014 | 22.5 | 359.971 | * |
| 31/10/2014 | 30 | 479.961 | * |
| 30/11/2014 | 37.5 | 599.952 | * |
| 31/12/2014 | 45 | 719.942 | * |
| 31/01/2015 | 53 | 847.932 | |
| 28/02/2015 | 63 | 1007.919 | |
| 31/03/2015 | 83 | 1327.893 | |
| 30/04/2015 | 89 | 1423.885 | |
| 31/05/2015 | 97 | 1551.875 | |
| 30/06/2015 | 98 | 1567.874 | |
| 31/07/2015 | 100 | 1599.871 | |

*    Steel quantity is extrapolated from the given figures
** Total quantity of box-girders before the addition of stiffeners and connection plates is 1265.383 tonnes

### Table A2-03: Facade box-beam steelwork

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) |
|---|---|---|
| 31/01/2015 | 0 | 0.000 |
| 28/02/2015 | 22 | 22.365 |
| 31/03/2015 | 41 | 41.680 |
| 30/04/2015 | 50 | 50.829 |
| 31/05/2015 | 50 | 50.829 |
| 30/06/2015 | 82 | 83.360 |
| 31/07/2015 | 100 | 101.658 |

### Table A2-04: Facade beam-bracing steelwork

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) | |
|---|---|---|---|
| 31/05/2014 | 0 | 0.000 | |
| 30/06/2014 | 7 | 59.746 | * |
| 31/07/2014 | 14 | 119.492 | * |
| 31/08/2014 | 21 | 179.238 | * |
| 30/09/2014 | 28 | 238.984 | * |
| 31/10/2014 | 35 | 298.730 | * |
| 30/11/2014 | 42 | 358.476 | * |
| 31/12/2014 | 49 | 418.222 | * |
| 31/01/2015 | 57 | 486.504 | |
| 28/02/2015 | 57 | 486.504 | |
| 31/03/2015 | 60 | 512.109 | |
| 30/04/2015 | 65 | 554.785 | |
| 31/05/2015 | 68 | 580.390 | |
| 30/06/2015 | 69 | 588.925 | |
| 31/07/2015 | 84 | 716.953 | |
| 30/08/2015 | 100 | 853.515 | |

* Steel quantity is extrapolated from the given figures.

### Table A2-05: Roof steelwork

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) | |
|---|---|---|---|
| 31/05/2014 | 0 | 0.000 | |
| 30/06/2014 | 2.5 | 10.096 | * |
| 31/07/2014 | 5 | 20.193 | * |
| 31/08/2014 | 7.5 | 30.289 | * |
| 30/09/2014 | 10 | 40.386 | * |
| 31/10/2014 | 12.5 | 50.482 | * |
| 30/11/2014 | 15 | 60.579 | * |
| 31/12/2014 | 17.5 | 70.675 | * |
| 31/01/2015 | 20 | 80.772 | |
| 28/02/2015 | 32 | 129.235 | |
| 31/03/2015 | 71 | 286.740 | |
| 30/04/2015 | 80 | 323.087 | |
| 31/05/2015 | 81 | 327.126 | |
| 30/06/2015 | 85 | 343.280 | |
| 31/07/2015 | 97 | 391.743 | |
| 30/08/2015 | 100 | 403.859 | |

* Steel quantity is extrapolated from the given figures.

### Table A2-06: Roof purlin steelwork

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) | |
|---|---|---|---|
| 30/04/2015 | 0 | 0.000 | |
| 31/05/2015 | 30 | 37.964 | * |
| 30/06/2015 | 60 | 75.927 | * |
| 31/07/2015 | 90 | 113.891 | |
| 30/08/2015 | 100 | 126.545 | |

* Steel quantity is extrapolated from the given figures.

### Table A2-07: Roof walkway steelwork

| Month ending | Percentage Steel Fabricated | Quantity (Tonnes) | |
|---|---|---|---|
| 30/04/2015 | 0 | 0.000 | |
| 31/05/2015 | 33 | 19.533 | * |
| 30/06/2015 | 66 | 39.065 | * |
| 31/07/2015 | 100 | 59.190 | |

* Steel quantity is extrapolated from the given figures.

### Table A2-08: Summary of steel quantities manufactured on a monthly basis (in tonnes)

| Month Ending | West Façade Columns | East Façade Columns | Box-beams | Beam-bracings | Roof steel | Roof purlins | Roof walkways | Total Steel |
|---|---|---|---|---|---|---|---|---|
| 31/05/2014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 30/06/2014 | 0.000 | 0.000 | 0.000 | 59.746 | 10.096 | 0.000 | 0.000 | 69.843 |
| 31/07/2014 | 0.000 | 119.990 | 0.000 | 119.492 | 20.193 | 0.000 | 0.000 | 259.675 |
| 31/08/2014 | 0.000 | 239.981 | 0.000 | 179.238 | 30.289 | 0.000 | 0.000 | 449.508 |
| 30/09/2014 | 0.000 | 359.971 | 0.000 | 238.984 | 40.386 | 0.000 | 0.000 | 639.341 |
| 31/10/2014 | 0.000 | 479.961 | 0.000 | 298.730 | 50.482 | 0.000 | 0.000 | 829.174 |
| 30/11/2014 | 0.000 | 599.952 | 0.000 | 358.476 | 60.579 | 0.000 | 0.000 | 1019.007 |
| 31/12/2014 | 64.083 | 719.942 | 0.000 | 418.222 | 70.675 | 0.000 | 0.000 | 1272.923 |
| 31/01/2015 | 128.167 | 847.932 | 0.000 | 486.504 | 80.772 | 0.000 | 0.000 | 1543.374 |
| 28/02/2015 | 256.333 | 1007.919 | 22.365 | 486.504 | 129.235 | 0.000 | 0.000 | 1902.355 |
| 31/03/2015 | 464.604 | 1327.893 | 41.680 | 512.109 | 286.740 | 0.000 | 0.000 | 2633.026 |
| 30/04/2015 | 720.938 | 1423.885 | 50.829 | 554.785 | 323.087 | 0.000 | 0.000 | 3073.524 |
| 31/05/2015 | 1153.500 | 1551.875 | 50.829 | 580.390 | 327.126 | 37.964 | 19.533 | 3721.217 |
| 30/06/2015 | 1554.021 | 1567.874 | 83.360 | 588.925 | 343.280 | 75.927 | 39.065 | 4252.453 |
| 31/07/2015 | 1602.084 | 1599.871 | 101.658 | 716.953 | 391.743 | 113.891 | 59.190 | 4585.389 |
| 30/08/2015 | 1602.084 | 1599.871 | 101.658 | 853.515 | 403.859 | 126.545 | 59.190 | 4746.722 |
| 30/09/2015 | 1602.084 | 1599.871 | 101.658 | 853.515 | 403.859 | 126.545 | 59.190 | 4746.722 |

# Appendix 3: Schedule of steelwork components for the Assembly Hall

This appendix comprises a detailed component by component schedule of the fabricated and erected steel for the Assembly Hall.

## Contents

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Column | 2046CF10C1 | CF1-1 | HI1500-50-85*855 | 1 | 29537.91 | C | 1 | 13.3-13.4 | Without Intumescent | Romania | 29/07/2014 | 14/10/2014 | 309 |
| 2 | Column | 2046FF10C2 | FF1-2 | HI1500-45-70*825 | 1 | 23358.67 | F | 1 | 13.3-13.4 | With Intumescent | Romania | 15/07/2014 | 14/11/2014 | 308 |
| 3 | Column | 2046EF10C2 | EF1-2 | HI1500-45-70*825 | 1 | 23358.67 | E | 1 | 13.3-13.4 | With Intumescent | Romania | 15/07/2014 | 14/11/2014 | 307 |
| 4 | Column | 2046FF10C1 | FF1-1 | HI675-45-50*675 | 1 | 12144.52 | F | 1 | 13.3-13.4 | With Intumescent | Romania | 29/07/2014 | 15/11/2014 | 306 |
| 5 | Column | 2046EF10C1 | EF1-1 | HI675-45-50*675 | 1 | 12144.51 | E | 1 | 13.3-13.4 | With Intumescent | Romania | 29/07/2014 | 15/11/2014 | 306 |
| 6 | Column | 2046DF10C2 | DF1-2 | HI1500-45-70*825 | 1 | 23358.67 | D | 1 | 13.3-13.4 | With Intumescent | Romania | 15/07/2014 | 14/11/2014 | 314 |
| 7 | Column | 2046DF10C1 | DF1-1 | HI675-45-50*675 | 1 | 12144.51 | D | 1 | 13.3-13.4 | With Intumescent | Romania | 29/07/2014 | 24/11/2014 | 320 |
| 8 | Column | 2046CF10C2 | CF1-2 | HI675-45-50*675 | 1 | 12797.31 | C | 1 | 13.3-13.4 | Without Intumescent | Romania | 29/07/2014 | 28/10/2014 | 311 |
| 9 | Column | 2046BF10C1 | BF1-1 | HI1500-50-85*855 | 1 | 30066.07 | B | 1 | 13.3-13.4 | Without Intumescent | Romania | 31/07/2014 | 26/10/2014 | 310 |
| 10 | Column | 2046BF10C2 | BF1-2 | HI675-45-50*675 | 1 | 13178.22 | B | 1 | 13.3-13.4 | Without Intumescent | Romania | 31/07/2014 | 28/10/2014 | 311 |
| 11 | Column | 2046AF10C1 | AF1-1 | HI1500-50-85*855 | 1 | 29570.42 | A | 1 | 13.3-13.4 | With Intumescent | Romania | 04/08/2014 | 21/05/2015 | 371 |
| 12 | Column | 2046AF10C2 | AF1-2 | HI1500-50-85*855 | 1 | 30092.66 | A | 1 | 13.3-13.4 | With Intumescent | Romania | 04/08/2014 | 29/11/2014 | 323 |
| 13 | Column | 2046AF10C3 | AF1-3 | HI675-45-50*675 | 1 | 13203.26 | A | 1 | 13.3-13.4 | With Intumescent | Romania | 04/08/2014 | 24/11/2014 | 320 |
| 14 | Column | 2046AF10C4 | AF1-4 | HI675-45-50*675 | 1 | 12864.44 | A | 1 | 13.3-13.4 | With Intumescent | Romania | 04/08/2014 | 22/05/2015 | 372 |
| 15 | Column | 2046BF20C1 | BF2-1 | HI1500-50-85*855 | 1 | 18147.74 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 16 | Column | 2046BF20C2 | BF2-2 | HI675-45-50*675 | 1 | 8659.86 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 11/12/2014 | 327 |
| 17 | Column | 2046BF20LPL3 | BF2-3 | PL50*350 | 1 | 170.34 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 18 | Column | 2046BF20LPL4 | BF2-4 | PL50*350 | 1 | 170.34 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 19 | Column | 2046BF20LPL5 | BF2-5 | PL50*350 | 1 | 170.34 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 20 | Column | 2046BF20LPL6 | BF2-6 | PL50*350 | 1 | 170.34 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 21 | Column | 2046BF20LPL7 | BF2-7 | PL45*845 | 1 | 370.14 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 22 | Column | 2046BF20LPL8 | BF2-8 | PL45*845 | 1 | 370.14 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 23 | Column | 2046BF20LPL9 | BF2-9 | PL40*270 | 1 | 101.74 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 24 | Column | 2046BF20LPL10 | BF2-10 | PL40*270 | 1 | 101.74 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 25 | Column | 2046BF20LPL11 | BF2-11 | PL40*270 | 1 | 101.74 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 26 | Column | 2046BF20LPL12 | BF2-12 | PL40*270 | 1 | 101.74 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 27 | Column | 2046BF20LPL13 | BF2-13 | PL35*400 | 1 | 66.60 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/01/2015 | 329 |
| 28 | Column | 2046BF20LPL14 | BF2-14 | PL35*400 | 1 | 66.60 | B | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 29 | Column | 2046BF20LPL15 | BF2-15 | PL30*655 | 1 | 185.10 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 30 | Column | 2046BF20LPL16 | BF2-16 | PL30*655 | 1 | 185.10 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 31 | Column | 2046BF20LPL17 | BF2-17 | PL30*1060 | 1 | 289.57 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 32 | Column | 2046BF20LPL18 | BF2-18 | PL30*1060 | 1 | 289.57 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 33 | Column | 2046CF20C1 | CF2-1 | HI1500-50-85*855 | 1 | 17991.39 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 34 | Column | 2046CF20C2 | CF2-2 | HI675-45-50*675 | 1 | 8485.69 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 35 | Column | 2046CF20LPL3 | CF2-3 | PL50*350 | 1 | 170.34 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 36 | Column | 2046CF20LPL4 | CF2-4 | PL50*350 | 1 | 170.34 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 37 | Column | 2046CF20LPL5 | CF2-5 | PL50*350 | 1 | 170.34 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 38 | Column | 2046CF20LPL6 | CF2-6 | PL50*350 | 1 | 170.34 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/02/2015 | 324 |
| 39 | Column | 2046CF20LPL7 | CF2-7 | PL45*845 | 1 | 370.14 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 40 | Column | 2046CF20LPL8 | CF2-8 | PL45*845 | 1 | 370.14 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 08/01/2015 | 328 |
| 41 | Column | 2046CF20LPL9 | CF2-9 | PL40*270 | 1 | 101.74 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 42 | Column | 2046CF20LPL10 | CF2-10 | PL40*270 | 1 | 101.74 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 43 | Column | 2046CF20LPL11 | CF2-11 | PL40*270 | 1 | 101.74 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 44 | Column | 2046CF20LPL12 | CF2-12 | PL40*270 | 1 | 101.74 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 45 | Column | 2046CF20LPL13 | CF2-13 | PL35*400 | 1 | 66.60 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 46 | Column | 2046CF20LPL14 | CF2-14 | PL35*400 | 1 | 66.60 | C | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 47 | Column | 2046CF20LPL15 | CF2-15 | PL30*655 | 1 | 185.10 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 48 | Column | 2046CF20LPL16 | CF2-16 | PL30*655 | 1 | 185.10 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 49 | Column | 2046CF20LPL17 | CF2-17 | PL30*1060 | 1 | 289.57 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 50 | Column | 2046CF20LPL18 | CF2-18 | PL30*1060 | 1 | 289.57 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 51 | Column | 2046DF20C1 | DF2-1 | HI675-45-50*675 | 1 | 8311.52 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 325 |
| 52 | Column | 2046DF20C2 | DF2-2 | HI1500-45-70*825 | 1 | 14662.01 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 11/12/2014 | 327 |
| 53 | Column | 2046DF20LPL3 | DF2-3 | PL50*320 | 1 | 155.74 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 54 | Column | 2046DF20LPL4 | DF2-4 | PL50*320 | 1 | 155.74 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 55 | Column | 2046DF20LPL5 | DF2-5 | PL50*320 | 1 | 155.74 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 56 | Column | 2046DF20LPL6 | DF2-6 | PL50*320 | 1 | 155.74 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 57 | Column | 2046DF20LPL7 | DF2-7 | PL40*270 | 1 | 101.74 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 58 | Column | 2046DF20LPL8 | DF2-8 | PL40*270 | 1 | 101.74 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 59 | Column | 2046DF20LPL9 | DF2-9 | PL40*270 | 1 | 101.74 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 60 | Column | 2046DF20LPL10 | DF2-10 | PL40*270 | 1 | 101.74 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 61 | Column | 2046DF20LPL11 | DF2-11 | PL35*805 | 1 | 274.26 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 08/01/2015 | 328 |
| 62 | Column | 2046DF20LPL12 | DF2-12 | PL35*805 | 1 | 274.26 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 08/01/2015 | 328 |
| 63 | Column | 2046DF20LPL13 | DF2-13 | PL35*400 | 1 | 66.60 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 64 | Column | 2046DF20LPL14 | DF2-14 | PL35*400 | 1 | 66.60 | D | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 65 | Column | 2046DF20LPL15 | DF2-15 | PL30*655 | 1 | 185.10 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 12/01/2015 | 22 |
| 66 | Column | 2046DF20LPL16 | DF2-16 | PL30*655 | 1 | 185.10 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 67 | Column | 2046DF20LPL17 | DF2-17 | PL25*1060 | 1 | 241.31 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 68 | Column | 2046DF20LPL18 | DF2-18 | PL25*1060 | 1 | 241.31 | D | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 69 | Column | 2046EF20C1 | EF2-1 | HI675-45-50*675 | 1 | 8311.52 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 70 | Column | 2046EF20C2 | EF2-2 | HI1500-45-70*825 | 1 | 14662.01 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 325 |
| 71 | Column | 2046EF20LPL3 | EF2-3 | PL50*320 | 1 | 155.74 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 72 | Column | 2046EF20LPL4 | EF2-4 | PL50*320 | 1 | 155.74 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 73 | Column | 2046EF20LPL5 | EF2-5 | PL50*320 | 1 | 155.74 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 74 | Column | 2046EF20LPL6 | EF2-6 | PL50*320 | 1 | 155.74 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 75 | Column | 2046EF20LPL7 | EF2-7 | PL40*270 | 1 | 101.74 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 76 | Column | 2046EF20LPL8 | EF2-8 | PL40*270 | 1 | 101.74 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 77 | Column | 2046EF20LPL9 | EF2-9 | PL40*270 | 1 | 101.74 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 78 | Column | 2046EF20LPL10 | EF2-10 | PL40*270 | 1 | 101.74 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 79 | Column | 2046EF20LPL11 | EF2-11 | PL35*805 | 1 | 274.26 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 80 | Column | 2046EF20LPL12 | EF2-12 | PL35*805 | 1 | 274.26 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 81 | Column | 2046EF20LPL13 | EF2-13 | PL35*400 | 1 | 66.60 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 82 | Column | 2046EF20LPL14 | EF2-14 | PL35*400 | 1 | 66.60 | E | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 83 | Column | 2046EF20LPL15 | EF2-15 | PL30*655 | 1 | 185.10 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |

Table A3-01: Schedule of Column Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | Column | 2046EF20LPL16 | EF2-16 | PL30*655 | 1 | 185.10 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 85 | Column | 2046EF20LPL17 | EF2-17 | PL25*1060 | 1 | 241.31 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 86 | Column | 2046EF20LPL18 | EF2-18 | PL25*1060 | 1 | 241.31 | E | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 87 | Column | 2046FF20C1 | FF2-1 | HI675-45-50*675 | 1 | 8311.52 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 322 |
| 88 | Column | 2046FF20C2 | FF2-2 | HI1500-45-70*825 | 1 | 14662.01 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 322 |
| 89 | Column | 2046FF20LPL3 | FF2-3 | PL50*320 | 1 | 155.74 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 90 | Column | 2046FF20LPL4 | FF2-4 | PL50*320 | 1 | 155.74 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 91 | Column | 2046FF20LPL5 | FF2-5 | PL50*320 | 1 | 155.74 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 92 | Column | 2046FF20LPL6 | FF2-6 | PL50*320 | 1 | 155.74 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/01/2015 | 329 |
| 93 | Column | 2046FF20LPL7 | FF2-7 | PL40*270 | 1 | 101.74 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 94 | Column | 2046FF20LPL8 | FF2-8 | PL40*270 | 1 | 101.74 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 95 | Column | 2046FF20LPL9 | FF2-9 | PL40*270 | 1 | 101.74 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 96 | Column | 2046FF20LPL10 | FF2-10 | PL40*270 | 1 | 101.74 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 97 | Column | 2046FF20LPL11 | FF2-11 | PL35*805 | 1 | 274.26 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 15/01/2015 | 23 |
| 98 | Column | 2046FF20LPL12 | FF2-12 | PL35*805 | 1 | 274.26 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 99 | Column | 2046FF20LPL13 | FF2-13 | PL35*400 | 1 | 66.60 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 100 | Column | 2046FF20LPL14 | FF2-14 | PL35*400 | 1 | 66.60 | F | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 101 | Column | 2046FF20LPL15 | FF2-15 | PL30*655 | 1 | 185.10 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 102 | Column | 2046FF20LPL16 | FF2-16 | PL30*655 | 1 | 185.10 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 103 | Column | 2046FF20LPL17 | FF2-17 | PL25*1060 | 1 | 241.31 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 104 | Column | 2046FF20LPL18 | FF2-18 | PL25*1060 | 1 | 241.31 | F | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 105 | Column | 2046GF20C1 | GF2-1 | HI675-45-50*675 | 1 | 8311.52 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 13/11/2014 | 313 |
| 106 | Column | 2046GF20C2 | GF2-2 | HI1500-45-70*825 | 1 | 14662.01 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 24/11/2014 | 319 |
| 107 | Column | 2046GF20LPL3 | GF2-3 | PL50*320 | 1 | 155.74 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 108 | Column | 2046GF20LPL4 | GF2-4 | PL50*320 | 1 | 155.74 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/01/2015 | 329 |
| 109 | Column | 2046GF20LPL5 | GF2-5 | PL50*320 | 1 | 155.74 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 110 | Column | 2046GF20LPL6 | GF2-6 | PL50*320 | 1 | 155.74 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 111 | Column | 2046GF20LPL7 | GF2-7 | PL40*270 | 1 | 101.74 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 112 | Column | 2046GF20LPL8 | GF2-8 | PL40*270 | 1 | 101.74 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 113 | Column | 2046GF20LPL9 | GF2-9 | PL40*270 | 1 | 101.74 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 114 | Column | 2046GF20LPL10 | GF2-10 | PL40*270 | 1 | 101.74 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 115 | Column | 2046GF20LPL11 | GF2-11 | PL35*805 | 1 | 274.26 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 15/01/2015 | 23 |
| 116 | Column | 2046GF20LPL12 | GF2-12 | PL35*805 | 1 | 274.26 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 15/01/2015 | 23 |
| 117 | Column | 2046GF20LPL13 | GF2-13 | PL35*400 | 1 | 66.60 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 118 | Column | 2046GF20LPL14 | GF2-14 | PL35*400 | 1 | 66.60 | G | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 119 | Column | 2046GF20LPL15 | GF2-15 | PL30*655 | 1 | 185.10 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 16 |
| 120 | Column | 2046GF20LPL16 | GF2-16 | PL30*655 | 1 | 185.10 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 16 |
| 121 | Column | 2046GF20LPL17 | GF2-17 | PL25*1060 | 1 | 241.31 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 16 |
| 122 | Column | 2046GF20LPL18 | GF2-18 | PL25*1060 | 1 | 241.31 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 16 |
| 123 | Column | 2046HF20C1 | HF2-1 | HI675-45-50*675 | 1 | 8311.52 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 21/11/2014 | 318 |
| 124 | Column | 2046HF20C2 | HF2-2 | HI1500-45-70*825 | 1 | 14662.01 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 21/11/2014 | 318 |
| 125 | Column | 2046HF20LPL3 | HF2-3 | PL50*320 | 1 | 155.74 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 126 | Column | 2046HF20LPL4 | HF2-4 | PL50*320 | 1 | 155.74 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 127 | Column | 2046HF20LPL5 | HF2-5 | PL50*320 | 1 | 155.74 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 128 | Column | 2046HF20LPL6 | HF2-6 | PL50*320 | 1 | 155.74 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 129 | Column | 2046HF20LPL7 | HF2-7 | PL40*270 | 1 | 101.74 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 130 | Column | 2046HF20LPL8 | HF2-8 | PL40*270 | 1 | 101.74 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 131 | Column | 2046HF20LPL9 | HF2-9 | PL40*270 | 1 | 101.74 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 10/12/2014 | 18 |
| 132 | Column | 2046HF20LPL10 | HF2-10 | PL40*270 | 1 | 101.74 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 133 | Column | 2046HF20LPL11 | HF2-11 | PL35*805 | 1 | 274.26 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 134 | Column | 2046HF20LPL12 | HF2-12 | PL35*805 | 1 | 274.26 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 135 | Column | 2046HF20LPL13 | HF2-13 | PL35*400 | 1 | 66.60 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 136 | Column | 2046HF20LPL14 | HF2-14 | PL35*400 | 1 | 66.60 | H | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 137 | Column | 2046HF20LPL15 | HF2-15 | PL30*655 | 1 | 185.10 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 138 | Column | 2046HF20LPL16 | HF2-16 | PL30*655 | 1 | 185.10 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 10/12/2014 | 18 |
| 139 | Column | 2046HF20LPL17 | HF2-17 | PL25*1060 | 1 | 241.31 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 140 | Column | 2046HF20LPL18 | HF2-18 | PL25*1060 | 1 | 241.31 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 141 | Column | 2046IF20C1 | IF2-1 | HI675-45-50*675 | 1 | 8339.53 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 24/11/2014 | 319 |
| 142 | Column | 2046IF20C2 | IF2-2 | HI1500-45-70*825 | 1 | 14680.18 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 13/11/2014 | 313 |
| 143 | Column | 2046IF20LPL3 | IF2-3 | PL50*320 | 1 | 155.74 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 144 | Column | 2046IF20LPL4 | IF2-4 | PL50*320 | 1 | 155.74 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 145 | Column | 2046IF20LPL5 | IF2-5 | PL50*320 | 1 | 155.74 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 146 | Column | 2046IF20LPL6 | IF2-6 | PL50*320 | 1 | 155.74 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 147 | Column | 2046IF20LPL7 | IF2-7 | PL40*270 | 1 | 101.74 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 148 | Column | 2046IF20LPL8 | IF2-8 | PL40*270 | 1 | 101.74 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 149 | Column | 2046IF20LPL9 | IF2-9 | PL40*270 | 1 | 101.74 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 16 |
| 150 | Column | 2046IF20LPL10 | IF2-10 | PL40*270 | 1 | 101.74 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 151 | Column | 2046IF20LPL11 | IF2-11 | PL35*805 | 1 | 274.26 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 152 | Column | 2046IF20LPL12 | IF2-12 | PL35*805 | 1 | 274.26 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 153 | Column | 2046IF20LPL13 | IF2-13 | PL35*400 | 1 | 66.60 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 154 | Column | 2046IF20LPL14 | IF2-14 | PL35*400 | 1 | 66.60 | I | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 155 | Column | 2046IF20LPL15 | IF2-15 | PL30*655 | 1 | 185.10 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 156 | Column | 2046IF20LPL16 | IF2-16 | PL30*655 | 1 | 185.10 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 10/12/2014 | 18 |
| 157 | Column | 2046IF20LPL17 | IF2-17 | PL25*1060 | 1 | 241.31 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 158 | Column | 2046IF20LPL18 | IF2-18 | PL25*1060 | 1 | 241.31 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 159 | Column | 2046JF20C1 | JF2-1 | HI675-45-50*675 | 1 | 8645.02 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/11/2014 | 312 |
| 160 | Column | 2046JF20C2 | JF2-2 | HI1500-45-70*825 | 1 | 14678.22 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 10/11/2014 | 312 |
| 161 | Column | 2046JF20LPL3 | JF2-3 | PL50*320 | 1 | 155.74 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 162 | Column | 2046JF20LPL4 | JF2-4 | PL50*320 | 1 | 155.74 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 163 | Column | 2046JF20LPL5 | JF2-5 | PL50*320 | 1 | 155.74 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 164 | Column | 2046JF20LPL6 | JF2-6 | PL50*320 | 1 | 155.74 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 165 | Column | 2046JF20LPL7 | JF2-7 | PL40*270 | 1 | 101.74 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 10/12/2014 | 18 |
| 166 | Column | 2046JF20LPL8 | JF2-8 | PL40*270 | 1 | 101.74 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 167 | Column | 2046JF20LPL9 | JF2-9 | PL40*270 | 1 | 101.74 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 168 | Column | 2046JF20LPL10 | JF2-10 | PL40*270 | 1 | 101.74 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 10/12/2014 | 18 |
| 169 | Column | 2046JF20LPL12 | JF2-12 | PL35*805 | 1 | 274.26 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 170 | Column | 2046JF20LPL13 | JF2-13 | PL35*400 | 1 | 66.60 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 171 | Column | 2046JF20LPL14 | JF2-14 | PL35*400 | 1 | 66.60 | J | 2 | 13.3-13.4 | Without Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 172 | Column | 2046JF20LPL15 | JF2-15 | PL30*655 | 1 | 185.10 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 173 | Column | 2046JF20LPL16 | JF2-16 | PL30*655 | 1 | 185.10 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 174 | Column | 2046JF20LPL18 | JF2-18 | PL25*1060 | 1 | 241.31 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 175 | Column | 2046JF20V11 | JF2-11 | PL35*805 | 1 | 287.05 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 176 | Column | 2046JF20V17 | JF2-17 | PL25*1060 | 1 | 259.80 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 08/08/2014 | 03/12/2014 | 17 |
| 177 | Column | 2046AF20C1 | AF2-1 | HI1500-50-85*855 | 1 | 17990.74 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 13/05/2015 | 368 |
| 178 | Column | 2046AF20C2 | AF2-2 | HI1500-50-85*855 | 1 | 18157.28 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 08/01/2015 | 328 |
| 179 | Column | 2046AF20C3 | AF2-3 | HI675-45-50*675 | 1 | 8536.93 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 22/05/2015 | 372 |
| 180 | Column | 2046AF20C4 | AF2-4 | HI675-45-50*675 | 1 | 8686.40 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/01/2015 | 330 |
| 181 | Column | 2046AF20LPL5 | AF2-5 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/12/2014 | 326 |
| 182 | Column | 2046AF20LPL6 | AF2-6 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 183 | Column | 2046AF20LPL7 | AF2-7 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 184 | Column | 2046AF20LPL8 | AF2-8 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 185 | Column | 2046AF20LPL9 | AF2-9 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 186 | Column | 2046AF20LPL10 | AF2-10 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 187 | Column | 2046AF20LPL11 | AF2-11 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 188 | Column | 2046AF20LPL12 | AF2-12 | PL50*350 | 1 | 170.34 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 189 | Column | 2046AF20LPL14 | AF2-14 | PL45*845 | 1 | 370.14 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 190 | Column | 2046AF20LPL15 | AF2-15 | PL45*845 | 1 | 370.14 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 191 | Column | 2046AF20LPL16 | AF2-16 | PL45*845 | 1 | 370.14 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 29/11/2014 | 321 |
| 192 | Column | 2046AF20LPL17 | AF2-17 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 193 | Column | 2046AF20LPL18 | AF2-18 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 194 | Column | 2046AF20LPL19 | AF2-19 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 195 | Column | 2046AF20LPL20 | AF2-20 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 196 | Column | 2046AF20LPL21 | AF2-21 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 197 | Column | 2046AF20LPL22 | AF2-22 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 198 | Column | 2046AF20LPL23 | AF2-23 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 199 | Column | 2046AF20LPL24 | AF2-24 | PL40*270 | 1 | 101.74 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 09/01/2015 | 21 |
| 200 | Column | 2046AF20LPL25 | AF2-25 | PL35*400 | 1 | 66.60 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 201 | Column | 2046AF20LPL26 | AF2-26 | PL35*400 | 1 | 66.60 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 202 | Column | 2046AF20LPL27 | AF2-27 | PL35*400 | 1 | 66.60 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 203 | Column | 2046AF20LPL28 | AF2-28 | PL35*400 | 1 | 66.60 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 02/12/2014 | 324 |
| 204 | Column | 2046AF20LPL29 | AF2-29 | PL30*655 | 1 | 185.10 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 205 | Column | 2046AF20LPL30 | AF2-30 | PL30*655 | 1 | 185.10 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 206 | Column | 2046AF20LPL31 | AF2-31 | PL30*655 | 1 | 185.10 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 207 | Column | 2046AF20LPL32 | AF2-32 | PL30*655 | 1 | 185.10 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 06/01/2015 | 20 |
| 208 | Column | 2046AF20LPL33 | AF2-33 | PL30*1060 | 1 | 289.57 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 209 | Column | 2046AF20LPL35 | AF2-35 | PL30*1060 | 1 | 289.57 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 210 | Column | 2046AF20LPL36 | AF2-36 | PL30*1060 | 1 | 289.57 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 211 | Column | 2046AF20V13 | AF2-13 | PL45*845 | 1 | 382.93 | A | 2 | 13.3-13.4 | With Intumescent | Romania | 08/08/2014 | 10/01/2015 | 329 |
| 212 | Column | 2046AF20V34 | AF2-34 | PL30*1060 | 1 | 308.06 | A | 2 | 13.3-13.4 | With Intumescent | Portugal | 08/08/2014 | 17/12/2014 | 19 |
| 213 | Column | 2046FF30C1 | FF3-1 | HI675-45-50*675 | 1 | 9751.43 | F | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 04/02/2015 | 336 |
| 214 | Column | 2046FF30C2 | FF3-2 | HI1500-45-70*825 | 1 | 18417.72 | F | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 04/02/2015 | 335 |
| 215 | Column | 2046FF30LPL3 | FF3-3 | PL50*320 | 1 | 115.55 | F | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 216 | Column | 2046FF30LPL4 | FF3-4 | PL50*320 | 1 | 115.55 | F | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 217 | Column | 2046FF30LPL5 | FF3-5 | PL50*320 | 1 | 115.55 | F | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 218 | Column | 2046FF30LPL6 | FF3-6 | PL50*320 | 1 | 115.55 | F | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 219 | Column | 2046FF30LPL7 | FF3-7 | PL40*270 | 1 | 62.74 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 220 | Column | 2046FF30LPL8 | FF3-8 | PL40*270 | 1 | 62.74 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 221 | Column | 2046FF30LPL9 | FF3-9 | PL40*270 | 1 | 62.74 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 222 | Column | 2046FF30LPL10 | FF3-10 | PL40*270 | 1 | 62.74 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 223 | Column | 2046FF30LPL11 | FF3-11 | PL35*805 | 1 | 203.48 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 224 | Column | 2046FF30LPL12 | FF3-12 | PL35*805 | 1 | 203.48 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 225 | Column | 2046FF30LPL13 | FF3-13 | PL35*400 | 1 | 66.60 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 226 | Column | 2046FF30LPL14 | FF3-14 | PL35*400 | 1 | 66.60 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 227 | Column | 2046FF30LPL15 | FF3-15 | PL30*655 | 1 | 114.15 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 228 | Column | 2046FF30LPL16 | FF3-16 | PL30*655 | 1 | 114.15 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 229 | Column | 2046FF30LPL17 | FF3-17 | PL25*740 | 1 | 169.91 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 230 | Column | 2046FF30LPL18 | FF3-18 | PL25*740 | 1 | 169.91 | F | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 231 | Column | 2046GF30C1 | GF3-1 | HI675-45-50*675 | 1 | 9751.43 | G | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 04/02/2015 | 336 |
| 232 | Column | 2046GF30C2 | GF3-2 | HI1500-45-70*825 | 1 | 18396.50 | G | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 26/01/2015 | 334 |
| 233 | Column | 2046GF30LPL3 | GF3-3 | PL50*320 | 1 | 115.55 | G | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 234 | Column | 2046GF30LPL4 | GF3-4 | PL50*320 | 1 | 115.55 | G | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 235 | Column | 2046GF30LPL5 | GF3-5 | PL50*320 | 1 | 115.55 | G | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 329 |
| 236 | Column | 2046GF30LPL6 | GF3-6 | PL50*320 | 1 | 115.55 | G | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 16/01/2015 | 332 |
| 237 | Column | 2046GF30LPL7 | GF3-7 | PL40*270 | 1 | 62.74 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 238 | Column | 2046GF30LPL8 | GF3-8 | PL40*270 | 1 | 62.74 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 239 | Column | 2046GF30LPL9 | GF3-9 | PL40*270 | 1 | 62.74 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 240 | Column | 2046GF30LPL10 | GF3-10 | PL40*270 | 1 | 62.74 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 241 | Column | 2046GF30LPL11 | GF3-11 | PL35*805 | 1 | 203.48 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 242 | Column | 2046GF30LPL12 | GF3-12 | PL35*805 | 1 | 203.48 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 243 | Column | 2046GF30LPL13 | GF3-13 | PL35*400 | 1 | 66.60 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 244 | Column | 2046GF30LPL14 | GF3-14 | PL35*400 | 1 | 66.60 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 245 | Column | 2046GF30LPL15 | GF3-15 | PL30*655 | 1 | 114.15 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 246 | Column | 2046GF30LPL16 | GF3-16 | PL30*655 | 1 | 114.15 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 247 | Column | 2046GF30LPL17 | GF3-17 | PL25*740 | 1 | 169.91 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 23/02/2015 | 41 |
| 248 | Column | 2046GF30LPL18 | GF3-18 | PL25*740 | 1 | 169.91 | G | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 23/02/2015 | 41 |
| 249 | Column | 2046HF30C1 | HF3-1 | HI675-45-50*675 | 1 | 9751.43 | H | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 16/01/2015 | 333 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 250 | Column | 2046HF30C2 | HF3-2 | HI1500-45-70*825 | 1 | 18366.65 | H | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 16/01/2015 | 332 |
| 251 | Column | 2046HF30LPL3 | HF3-3 | PL50*320 | 1 | 115.55 | H | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 329 |
| 252 | Column | 2046HF30LPL4 | HF3-4 | PL50*320 | 1 | 115.55 | H | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 253 | Column | 2046HF30LPL5 | HF3-5 | PL50*320 | 1 | 115.55 | H | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 254 | Column | 2046HF30LPL6 | HF3-6 | PL50*320 | 1 | 115.55 | H | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 255 | Column | 2046HF30LPL7 | HF3-7 | PL40*270 | 1 | 62.74 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 256 | Column | 2046HF30LPL8 | HF3-8 | PL40*270 | 1 | 62.74 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 257 | Column | 2046HF30LPL9 | HF3-9 | PL40*270 | 1 | 62.74 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 258 | Column | 2046HF30LPL10 | HF3-10 | PL40*270 | 1 | 62.74 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 259 | Column | 2046HF30LPL11 | HF3-11 | PL35*805 | 1 | 203.48 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 260 | Column | 2046HF30LPL12 | HF3-12 | PL35*805 | 1 | 203.48 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 261 | Column | 2046HF30LPL13 | HF3-13 | PL35*400 | 1 | 66.60 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 262 | Column | 2046HF30LPL14 | HF3-14 | PL35*400 | 1 | 66.60 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 263 | Column | 2046HF30LPL15 | HF3-15 | PL30*655 | 1 | 114.15 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 264 | Column | 2046HF30LPL16 | HF3-16 | PL30*655 | 1 | 114.15 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 265 | Column | 2046HF30LPL17 | HF3-17 | PL25*740 | 1 | 169.91 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 23/02/2015 | 41 |
| 266 | Column | 2046HF30LPL18 | HF3-18 | PL25*740 | 1 | 169.91 | H | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 23/02/2015 | 41 |
| 267 | Column | 2046IF30C1 | IF3-1 | HI675-45-50*675 | 1 | 9776.81 | I | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 16/01/2015 | 333 |
| 268 | Column | 2046IF30C2 | IF3-2 | HI1500-45-70*825 | 1 | 18368.91 | I | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 269 | Column | 2046IF30LPL3 | IF3-3 | PL50*320 | 1 | 115.55 | I | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 329 |
| 270 | Column | 2046IF30LPL4 | IF3-4 | PL50*320 | 1 | 115.55 | I | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 271 | Column | 2046IF30LPL5 | IF3-5 | PL50*320 | 1 | 115.55 | I | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 272 | Column | 2046IF30LPL6 | IF3-6 | PL50*320 | 1 | 115.55 | I | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 273 | Column | 2046IF30LPL7 | IF3-7 | PL40*270 | 1 | 62.74 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 274 | Column | 2046IF30LPL8 | IF3-8 | PL40*270 | 1 | 62.74 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 275 | Column | 2046IF30LPL9 | IF3-9 | PL40*270 | 1 | 62.74 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 276 | Column | 2046IF30LPL10 | IF3-10 | PL40*270 | 1 | 62.74 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 277 | Column | 2046IF30LPL11 | IF3-11 | PL35*805 | 1 | 203.48 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 278 | Column | 2046IF30LPL12 | IF3-12 | PL35*805 | 1 | 203.48 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 279 | Column | 2046IF30LPL13 | IF3-13 | PL35*400 | 1 | 66.60 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 280 | Column | 2046IF30LPL14 | IF3-14 | PL35*400 | 1 | 66.60 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 281 | Column | 2046IF30LPL15 | IF3-15 | PL30*655 | 1 | 114.15 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 282 | Column | 2046IF30LPL16 | IF3-16 | PL30*655 | 1 | 114.15 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 283 | Column | 2046IF30LPL17 | IF3-17 | PL25*740 | 1 | 169.91 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 284 | Column | 2046IF30LPL18 | IF3-18 | PL25*740 | 1 | 169.91 | I | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 285 | Column | 2046JF30C1 | JF3-1 | HI675-45-50*675 | 1 | 10281.13 | J | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 330 |
| 286 | Column | 2046JF30C2 | JF3-2 | HI1500-45-70*825 | 1 | 18302.30 | J | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 329 |
| 287 | Column | 2046JF30LPL3 | JF3-3 | PL50*320 | 1 | 115.55 | J | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 329 |
| 288 | Column | 2046JF30LPL4 | JF3-4 | PL50*320 | 1 | 115.55 | J | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 289 | Column | 2046JF30LPL5 | JF3-5 | PL50*320 | 1 | 115.55 | J | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 15/01/2015 | 331 |
| 290 | Column | 2046JF30LPL6 | JF3-6 | PL50*320 | 1 | 115.55 | J | 3 | 13.3-13.4 | With Intumescent | Romania | 14/08/2014 | 10/01/2015 | 329 |
| 291 | Column | 2046JF30LPL7 | JF3-7 | PL40*270 | 1 | 62.74 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 292 | Column | 2046JF30LPL8 | JF3-8 | PL40*270 | 1 | 62.74 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 293 | Column | 2046JF30LPL9 | JF3-9 | PL40*270 | 1 | 62.74 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 294 | Column | 2046JF30LPL10 | JF3-10 | PL40*270 | 1 | 62.74 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 295 | Column | 2046JF30LPL11 | JF3-11 | PL35*805 | 1 | 203.48 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 296 | Column | 2046JF30LPL12 | JF3-12 | PL35*805 | 1 | 203.48 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 297 | Column | 2046JF30LPL13 | JF3-13 | PL35*400 | 1 | 66.60 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 298 | Column | 2046JF30LPL14 | JF3-14 | PL35*400 | 1 | 66.60 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 299 | Column | 2046JF30LPL15 | JF3-15 | PL30*655 | 1 | 114.15 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 300 | Column | 2046JF30LPL16 | JF3-16 | PL30*655 | 1 | 114.15 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 301 | Column | 2046JF30LPL17 | JF3-17 | PL25*740 | 1 | 169.91 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 23/02/2015 | 41 |
| 302 | Column | 2046JF30LPL18 | JF3-18 | PL25*740 | 1 | 169.91 | J | 3 | 13.3-13.4 | With Intumescent | Portugal | 14/08/2014 | 13/02/2015 | 36 |
| 303 | Column | 2046CF30C1 | CF3-1 | HI1500-50-85*855 | 1 | 22540.76 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 19/02/2015 | 341 |
| 304 | Column | 2046CF30C2 | CF3-2 | HI675-45-50*675 | 1 | 10346.89 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 27/02/2015 | 347 |
| 305 | Column | 2046CF30LPL3 | CF3-3 | PL50*350 | 1 | 126.38 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 306 | Column | 2046CF30LPL4 | CF3-4 | PL50*350 | 1 | 126.38 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 15/01/2015 | 331 |
| 307 | Column | 2046CF30LPL5 | CF3-5 | PL50*350 | 1 | 126.38 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 15/01/2015 | 331 |
| 308 | Column | 2046CF30LPL6 | CF3-6 | PL50*350 | 1 | 126.38 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 15/01/2015 | 331 |
| 309 | Column | 2046CF30LPL7 | CF3-7 | PL45*845 | 1 | 274.62 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 26/01/2015 | 334 |
| 310 | Column | 2046CF30LPL8 | CF3-8 | PL45*845 | 1 | 274.62 | C | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 26/01/2015 | 334 |
| 311 | Column | 2046CF30LPL9 | CF3-9 | PL40*270 | 1 | 62.74 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 312 | Column | 2046CF30LPL10 | CF3-10 | PL40*270 | 1 | 62.74 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 313 | Column | 2046CF30LPL11 | CF3-11 | PL40*270 | 1 | 62.74 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 314 | Column | 2046CF30LPL12 | CF3-12 | PL40*270 | 1 | 62.74 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 315 | Column | 2046CF30LPL13 | CF3-13 | PL35*400 | 1 | 66.60 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 316 | Column | 2046CF30LPL14 | CF3-14 | PL35*400 | 1 | 66.60 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 317 | Column | 2046CF30LPL15 | CF3-15 | PL30*655 | 1 | 114.15 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 318 | Column | 2046CF30LPL16 | CF3-16 | PL30*655 | 1 | 114.15 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 319 | Column | 2046CF30LPL17 | CF3-17 | PL30*740 | 1 | 203.90 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 320 | Column | 2046CF30LPL18 | CF3-18 | PL30*740 | 1 | 203.90 | C | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 321 | Column | 2046DF30C1 | DF3-1 | HI675-45-50*675 | 1 | 9751.43 | D | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 13/02/2015 | 338 |
| 322 | Column | 2046DF30C2 | DF3-2 | HI1500-45-70*825 | 1 | 18417.72 | D | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 13/02/2015 | 339 |
| 323 | Column | 2046DF30LPL3 | DF3-3 | PL50*320 | 1 | 115.55 | D | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 324 | Column | 2046DF30LPL4 | DF3-4 | PL50*320 | 1 | 115.55 | D | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 325 | Column | 2046DF30LPL5 | DF3-5 | PL50*320 | 1 | 115.55 | D | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 326 | Column | 2046DF30LPL6 | DF3-6 | PL50*320 | 1 | 115.55 | D | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 327 | Column | 2046DF30LPL7 | DF3-7 | PL40*270 | 1 | 62.74 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 328 | Column | 2046DF30LPL8 | DF3-8 | PL40*270 | 1 | 62.74 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 329 | Column | 2046DF30LPL9 | DF3-9 | PL40*270 | 1 | 62.74 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 330 | Column | 2046DF30LPL10 | DF3-10 | PL40*270 | 1 | 62.74 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 331 | Column | 2046DF30LPL11 | DF3-11 | PL35*805 | 1 | 203.48 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 332 | Column | 2046DF30LPL12 | DF3-12 | PL35*805 | 1 | 203.48 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |

Table A3-01: Schedule of Column Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 333 | Column | 2046DF30LPL13 | DF3-13 | PL35*400 | 1 | 66.60 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 334 | Column | 2046DF30LPL14 | DF3-14 | PL35*400 | 1 | 66.60 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 335 | Column | 2046DF30LPL15 | DF3-15 | PL30*655 | 1 | 114.15 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 336 | Column | 2046DF30LPL16 | DF3-16 | PL30*655 | 1 | 114.15 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 337 | Column | 2046DF30LPL17 | DF3-17 | PL25*740 | 1 | 169.91 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 13/02/2015 | 36 |
| 338 | Column | 2046DF30LPL18 | DF3-18 | PL25*740 | 1 | 169.91 | D | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 339 | Column | 2046EF30C1 | EF3-1 | HI675-45-50*675 | 1 | 9751.43 | E | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 13/02/2015 | 338 |
| 340 | Column | 2046EF30C2 | EF3-2 | HI1500-45-70*825 | 1 | 18417.72 | E | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/02/2015 | 337 |
| 341 | Column | 2046EF30LPL3 | EF3-3 | PL50*320 | 1 | 115.55 | E | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 342 | Column | 2046EF30LPL4 | EF3-4 | PL50*320 | 1 | 115.55 | E | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 343 | Column | 2046EF30LPL5 | EF3-5 | PL50*320 | 1 | 115.55 | E | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 10/01/2015 | 329 |
| 344 | Column | 2046EF30LPL6 | EF3-6 | PL50*320 | 1 | 115.55 | E | 3 | 13.3-13.4 | With Intumescent | Romania | 25/08/2014 | 15/01/2015 | 331 |
| 345 | Column | 2046EF30LPL7 | EF3-7 | PL40*270 | 1 | 62.74 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 346 | Column | 2046EF30LPL8 | EF3-8 | PL40*270 | 1 | 62.74 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 347 | Column | 2046EF30LPL9 | EF3-9 | PL40*270 | 1 | 62.74 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 348 | Column | 2046EF30LPL10 | EF3-10 | PL40*270 | 1 | 62.74 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 349 | Column | 2046EF30LPL11 | EF3-11 | PL35*805 | 1 | 203.48 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 350 | Column | 2046EF30LPL12 | EF3-12 | PL35*805 | 1 | 203.48 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 351 | Column | 2046EF30LPL13 | EF3-13 | PL35*400 | 1 | 66.60 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 352 | Column | 2046EF30LPL14 | EF3-14 | PL35*400 | 1 | 66.60 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 353 | Column | 2046EF30LPL15 | EF3-15 | PL30*655 | 1 | 114.15 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 354 | Column | 2046EF30LPL16 | EF3-16 | PL30*655 | 1 | 114.15 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 06/02/2015 | 32 |
| 355 | Column | 2046EF30LPL17 | EF3-17 | PL25*740 | 1 | 169.91 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 356 | Column | 2046EF30LPL18 | EF3-18 | PL25*740 | 1 | 169.91 | E | 3 | 13.3-13.4 | With Intumescent | Portugal | 25/08/2014 | 02/02/2015 | 30 |
| 357 | Column | 2046BF30C1 | BF3-1 | HI1500-50-85*855 | 1 | 22760.35 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 27/02/2015 | 348 |
| 358 | Column | 2046BF30C2 | BF3-2 | HI675-45-50*675 | 1 | 10726.46 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 27/02/2015 | 347 |
| 359 | Column | 2046BF30LPL3 | BF3-3 | PL50*350 | 1 | 126.38 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 15/01/2015 | 331 |
| 360 | Column | 2046BF30LPL4 | BF3-4 | PL50*350 | 1 | 126.38 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 10/01/2015 | 329 |
| 361 | Column | 2046BF30LPL5 | BF3-5 | PL50*350 | 1 | 126.38 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 10/01/2015 | 329 |
| 362 | Column | 2046BF30LPL6 | BF3-6 | PL50*350 | 1 | 126.38 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 15/01/2015 | 331 |
| 363 | Column | 2046BF30LPL7 | BF3-7 | PL45*845 | 1 | 274.62 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 26/01/2015 | 334 |
| 364 | Column | 2046BF30LPL8 | BF3-8 | PL45*845 | 1 | 274.62 | B | 3 | 13.3-13.4 | With Intumescent | Romania | 29/08/2014 | 26/01/2015 | 334 |
| 365 | Column | 2046BF30LPL9 | BF3-9 | PL40*270 | 1 | 62.74 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 366 | Column | 2046BF30LPL10 | BF3-10 | PL40*270 | 1 | 62.74 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 367 | Column | 2046BF30LPL11 | BF3-11 | PL40*270 | 1 | 62.74 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 368 | Column | 2046BF30LPL12 | BF3-12 | PL40*270 | 1 | 62.74 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 369 | Column | 2046BF30LPL13 | BF3-13 | PL35*400 | 1 | 66.60 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 370 | Column | 2046BF30LPL14 | BF3-14 | PL35*400 | 1 | 66.60 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 371 | Column | 2046BF30LPL15 | BF3-15 | PL30*655 | 1 | 114.15 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 06/02/2015 | 32 |
| 372 | Column | 2046BF30LPL16 | BF3-16 | PL30*655 | 1 | 114.15 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 06/02/2015 | 32 |
| 373 | Column | 2046BF30LPL17 | BF3-17 | PL30*740 | 1 | 203.90 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 06/02/2015 | 32 |
| 374 | Column | 2046BF30LPL18 | BF3-18 | PL30*740 | 1 | 203.90 | B | 3 | 13.3-13.4 | With Intumescent | Portugal | 29/08/2014 | 02/02/2015 | 30 |
| 375 | Column | 2046BF40C1 | BF4-1 | HI1500-50-85*855 | 1 | 23552.04 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 11/03/2015 | 353 |
| 376 | Column | 2046BF40C2 | BF4-2 | HI675-45-50*675 | 1 | 8010.08 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 18/04/2015 | 365 |
| 377 | Column | 2046BF40LPL3 | BF4-3 | PL50*350 | 1 | 170.34 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 378 | Column | 2046BF40LPL4 | BF4-4 | PL50*350 | 1 | 170.34 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 379 | Column | 2046BF40LPL5 | BF4-5 | PL50*350 | 1 | 170.34 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 380 | Column | 2046BF40LPL6 | BF4-6 | PL50*350 | 1 | 170.34 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 381 | Column | 2046BF40LPL7 | BF4-7 | PL45*845 | 1 | 370.14 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 382 | Column | 2046BF40LPL8 | BF4-8 | PL45*845 | 1 | 370.14 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 383 | Column | 2046BF40LPL9 | BF4-9 | PL40*270 | 1 | 101.74 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 384 | Column | 2046BF40LPL10 | BF4-10 | PL40*270 | 1 | 101.74 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 385 | Column | 2046BF40LPL11 | BF4-11 | PL40*270 | 1 | 101.74 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 386 | Column | 2046BF40LPL12 | BF4-12 | PL40*270 | 1 | 101.74 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 387 | Column | 2046BF40LPL13 | BF4-13 | PL35*400 | 1 | 66.60 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 20/03/2015 | 54 |
| 388 | Column | 2046BF40LPL14 | BF4-14 | PL35*400 | 1 | 66.60 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 20/03/2015 | 54 |
| 389 | Column | 2046BF40LPL15 | BF4-15 | PL30*655 | 1 | 185.10 | B | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 390 | Column | 2046BF40LPL16 | BF4-16 | PL30*655 | 1 | 185.10 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 13/04/2015 | 67 |
| 391 | Column | 2046BF40LPL17 | BF4-17 | PL30*1060 | 1 | 289.57 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 13/04/2015 | 67 |
| 392 | Column | 2046BF40LPL18 | BF4-18 | PL30*1060 | 1 | 289.57 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 13/04/2015 | 67 |
| 393 | Column | 2046CF40C1 | CF4-1 | HI1500-50-85*855 | 1 | 23129.39 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 11/03/2015 | 352 |
| 394 | Column | 2046CF40C2 | CF4-2 | HI675-45-50*675 | 1 | 7931.15 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 18/04/2015 | 365 |
| 395 | Column | 2046CF40LPL3 | CF4-3 | PL50*350 | 1 | 170.34 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 396 | Column | 2046CF40LPL4 | CF4-4 | PL50*350 | 1 | 170.34 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 397 | Column | 2046CF40LPL5 | CF4-5 | PL50*350 | 1 | 170.34 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 398 | Column | 2046CF40LPL6 | CF4-6 | PL50*350 | 1 | 170.34 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 399 | Column | 2046CF40LPL7 | CF4-7 | PL45*845 | 1 | 370.14 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 400 | Column | 2046CF40LPL8 | CF4-8 | PL45*845 | 1 | 370.14 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 29/03/2015 | 360 |
| 401 | Column | 2046CF40LPL9 | CF4-9 | PL40*270 | 1 | 101.74 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 402 | Column | 2046CF40LPL10 | CF4-10 | PL40*270 | 1 | 101.74 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 403 | Column | 2046CF40LPL11 | CF4-11 | PL40*270 | 1 | 101.74 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 404 | Column | 2046CF40LPL12 | CF4-12 | PL40*270 | 1 | 101.74 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 18/03/2015 | 53 |
| 405 | Column | 2046CF40LPL13 | CF4-13 | PL35*400 | 1 | 66.60 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 27/07/2015 | 155 |
| 406 | Column | 2046CF40LPL14 | CF4-14 | PL35*400 | 1 | 66.60 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 03/09/2014 | 08/04/2015 | 63 |
| 407 | Column | 2046CF40LPL15 | CF4-15 | PL30*655 | 1 | 185.10 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 408 | Column | 2046CF40LPL16 | CF4-16 | PL30*655 | 1 | 185.10 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 409 | Column | 2046CF40LPL17 | CF4-17 | PL30*1060 | 1 | 289.57 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 410 | Column | 2046CF40LPL18 | CF4-18 | PL30*1060 | 1 | 289.57 | C | 4 | 13.3-13.4 | Without Intumescent | Romania | 03/09/2014 | 15/03/2015 | 354 |
| 411 | Column | 2046AF40C1 | AF4-1 | HI1500-50-85*855 | 1 | 23118.07 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 06/06/2015 | 379 |
| 412 | Column | 2046AF40C2 | AF4-2 | HI1500-50-85*855 | 1 | 23556.72 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 15/04/2015 | 364 |
| 413 | Column | 2046AF40C3 | AF4-3 | HI675-45-50*675 | 1 | 8023.97 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 08/05/2015 | 367 |
| 414 | Column | 2046AF40C4 | AF4-4 | HI675-45-50*675 | 1 | 7614.32 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 30/05/2015 | 377 |
| 415 | Column | 2046AF40LPL5 | AF4-5 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 15/03/2015 | 354 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 416 | Column | 2046AF40LPL6 | AF4-6 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 417 | Column | 2046AF40LPL7 | AF4-7 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 418 | Column | 2046AF40LPL8 | AF4-8 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 419 | Column | 2046AF40LPL9 | AF4-9 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 420 | Column | 2046AF40LPL10 | AF4-10 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 15/03/2015 | 354 |
| 421 | Column | 2046AF40LPL11 | AF4-11 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 422 | Column | 2046AF40LPL12 | AF4-12 | PL50*350 | 1 | 170.34 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 15/03/2015 | 354 |
| 423 | Column | 2046AF40LPL13 | AF4-13 | PL45*845 | 1 | 370.14 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 424 | Column | 2046AF40LPL14 | AF4-14 | PL45*845 | 1 | 370.14 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 425 | Column | 2046AF40LPL15 | AF4-15 | PL45*845 | 1 | 370.14 | A | 4 | 13.3-13.4 | With Intumescent | Romania | 05/09/2014 | 29/03/2015 | 360 |
| 426 | Column | 2046AF40LPL17 | AF4-17 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 427 | Column | 2046AF40LPL18 | AF4-18 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 428 | Column | 2046AF40LPL19 | AF4-19 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 429 | Column | 2046AF40LPL20 | AF4-20 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 430 | Column | 2046AF40LPL21 | AF4-21 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 431 | Column | 2046AF40LPL22 | AF4-22 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 432 | Column | 2046AF40LPL23 | AF4-23 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 433 | Column | 2046AF40LPL24 | AF4-24 | PL40*270 | 1 | 101.74 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 18/03/2015 | 53 |
| 434 | Column | 2046AF40LPL25 | AF4-25 | PL35*400 | 1 | 66.60 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 20/03/2015 | 54 |
| 435 | Column | 2046AF40LPL26 | AF4-26 | PL35*400 | 1 | 66.60 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 20/03/2015 | 54 |
| 436 | Column | 2046AF40LPL27 | AF4-27 | PL35*400 | 1 | 66.60 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 20/03/2015 | 54 |
| 437 | Column | 2046AF40LPL28 | AF4-28 | PL35*400 | 1 | 66.60 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 20/03/2015 | 54 |
| 438 | Column | 2046AF40LPL29 | AF4-29 | PL30*655 | 1 | 185.10 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 13/04/2015 | 67 |
| 439 | Column | 2046AF40LPL30 | AF4-30 | PL30*655 | 1 | 185.10 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 13/04/2015 | 67 |
| 440 | Column | 2046AF40LPL31 | AF4-31 | PL30*655 | 1 | 185.10 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 13/04/2015 | 67 |
| 441 | Column | 2046AF40LPL32 | AF4-32 | PL30*655 | 1 | 185.10 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 13/04/2015 | 67 |
| 442 | Column | 2046AF40LPL33 | AF4-33 | PL30*1060 | 1 | 289.57 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 13/04/2015 | 67 |
| 443 | Column | 2046AF40LPL34 | AF4-34 | PL30*1060 | 1 | 289.57 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 13/04/2015 | 67 |
| 444 | Column | 2046AF40LPL35 | AF4-35 | PL30*1060 | 1 | 289.57 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 27/03/2015 | 59 |
| 445 | Column | 2046AF40LPL36 | AF4-36 | PL30*1060 | 1 | 289.57 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 05/09/2014 | 27/03/2015 | 59 |
| 446 | Column | 2046GF10C2 | GF1-2 | HI1500-45-70*825 | 1 | 23341.57 | G | 1 | 13.3-13.4 | Without Intumescent | Romania | 15/07/2014 | 28/09/2014 | 305 |
| 447 | Column | 2046HF10C2 | HF1-2 | HI1500-45-70*825 | 1 | 23419.96 | H | 1 | 13.3-13.4 | Without Intumescent | Romania | 15/07/2014 | 27/09/2014 | 304 |
| 448 | Column | 2046HF10C1 | HF1-1 | HI675-45-50*675 | 1 | 12217.83 | H | 1 | 13.3-13.4 | Without Intumescent | Romania | 29/07/2014 | 27/09/2014 | 303 |
| 449 | Column | 2046GF10C1 | GF1-1 | HI675-45-50*675 | 1 | 12125.42 | G | 1 | 13.3-13.4 | Without Intumescent | Romania | 29/07/2014 | 27/09/2014 | 303 |
| 450 | Column | 2046IF10C2 | IF1-2 | HI1500-45-70*825 | 1 | 23619.12 | I | 1 | 13.3-13.4 | Without Intumescent | Romania | 15/07/2014 | 26/09/2014 | 302 |
| 451 | Column | 2046JF10C1 | JF1-1 | HI675-45-50*675 | 1 | 12490.76 | J | 1 | 13.3-13.4 | Without Intumescent | Romania | 23/07/2014 | 24/09/2014 | 300 |
| 452 | Column | 2046JF10C2 | JF1-2 | HI1500-45-70*825 | 1 | 23565.09 | J | 1 | 13.3-13.4 | Without Intumescent | Romania | 23/07/2014 | 24/09/2014 | 301 |
| 453 | Column | 2046IF10C1 | IF1-1 | HI675-45-50*675 | 1 | 12141.34 | I | 1 | 13.3-13.4 | Without Intumescent | Romania | 23/07/2014 | 24/09/2014 | 300 |
| 454 | Column | 2046HF40C1 | HF4-1 | HI675-45-50*675 | 1 | 7763.06 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 20/03/2015 | 356 |
| 455 | Column | 2046HF40C2 | HF4-2 | HI1500-45-70*825 | 1 | 18545.72 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 20/02/2015 | 344 |
| 456 | Column | 2046HF40LPL3 | HF4-3 | PL50*320 | 1 | 155.74 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 457 | Column | 2046HF40LPL4 | HF4-4 | PL50*320 | 1 | 155.74 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 458 | Column | 2046HF40LPL5 | HF4-5 | PL50*320 | 1 | 155.74 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 459 | Column | 2046HF40LPL6 | HF4-6 | PL50*320 | 1 | 155.74 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 460 | Column | 2046HF40LPL7 | HF4-7 | PL40*270 | 1 | 101.74 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 27/03/2015 | 59 |
| 461 | Column | 2046HF40LPL8 | HF4-8 | PL40*270 | 1 | 101.74 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 25/03/2015 | 56 |
| 462 | Column | 2046HF40LPL9 | HF4-9 | PL40*270 | 1 | 101.74 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 27/03/2015 | 59 |
| 463 | Column | 2046HF40LPL10 | HF4-10 | PL40*270 | 1 | 101.74 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 25/03/2015 | 56 |
| 464 | Column | 2046HF40LPL11 | HF4-11 | PL35*805 | 1 | 274.26 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 18/03/2015 | 53 |
| 465 | Column | 2046HF40LPL12 | HF4-12 | PL35*805 | 1 | 274.26 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 08/04/2015 | 63 |
| 466 | Column | 2046HF40LPL13 | HF4-13 | PL35*400 | 1 | 66.60 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 20/03/2015 | 54 |
| 467 | Column | 2046HF40LPL14 | HF4-14 | PL35*400 | 1 | 66.60 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 20/03/2015 | 54 |
| 468 | Column | 2046HF40LPL15 | HF4-15 | PL30*655 | 1 | 185.10 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 469 | Column | 2046HF40LPL16 | HF4-16 | PL30*655 | 1 | 185.10 | H | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 470 | Column | 2046HF40LPL17 | HF4-17 | PL25*1060 | 1 | 241.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 27/03/2015 | 59 |
| 471 | Column | 2046HF40LPL18 | HF4-18 | PL25*1060 | 1 | 241.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 27/03/2015 | 59 |
| 472 | Column | 2046IF40C1 | IF4-1 | HI675-45-50*675 | 1 | 7776.96 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 15/03/2015 | 354 |
| 473 | Column | 2046IF40C2 | IF4-2 | HI1500-45-70*825 | 1 | 18548.67 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 20/02/2015 | 342 |
| 474 | Column | 2046IF40LPL3 | IF4-3 | PL50*320 | 1 | 155.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 475 | Column | 2046IF40LPL4 | IF4-4 | PL50*320 | 1 | 155.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 476 | Column | 2046IF40LPL5 | IF4-5 | PL50*320 | 1 | 155.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 477 | Column | 2046IF40LPL6 | IF4-6 | PL50*320 | 1 | 155.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 478 | Column | 2046IF40LPL7 | IF4-7 | PL40*270 | 1 | 101.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 479 | Column | 2046IF40LPL8 | IF4-8 | PL40*270 | 1 | 101.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 480 | Column | 2046IF40LPL9 | IF4-9 | PL40*270 | 1 | 101.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 481 | Column | 2046IF40LPL10 | IF4-10 | PL40*270 | 1 | 101.74 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 482 | Column | 2046IF40LPL11 | IF4-11 | PL35*805 | 1 | 274.26 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 18/03/2015 | 53 |
| 483 | Column | 2046IF40LPL12 | IF4-12 | PL35*805 | 1 | 274.26 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 18/03/2015 | 53 |
| 484 | Column | 2046IF40LPL13 | IF4-13 | PL35*400 | 1 | 66.60 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 20/03/2015 | 54 |
| 485 | Column | 2046IF40LPL14 | IF4-14 | PL35*400 | 1 | 66.60 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 20/03/2015 | 54 |
| 486 | Column | 2046IF40LPL15 | IF4-15 | PL30*655 | 1 | 185.10 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 487 | Column | 2046IF40LPL16 | IF4-16 | PL30*655 | 1 | 185.10 | I | 4 | 13.3-13.4 | Without Intumescent | Romania | 23/09/2014 | 05/03/2015 | 351 |
| 488 | Column | 2046IF40LPL17 | IF4-17 | PL25*1060 | 1 | 241.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 13/04/2015 | 67 |
| 489 | Column | 2046IF40LPL18 | IF4-18 | PL25*1060 | 1 | 241.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/09/2014 | 13/04/2015 | 67 |
| 490 | Column | 2046AF30C1 | AF3-1 | HI1500-50-85*855 | 1 | 22505.07 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 25/05/2015 | 378 |
| 491 | Column | 2046AF30C2 | AF3-2 | HI1500-50-85*855 | 1 | 22757.41 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 03/03/2015 | 350 |
| 492 | Column | 2046AF30C3 | AF3-3 | HI675-45-50*675 | 1 | 10401.49 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 29/05/2015 | 376 |
| 493 | Column | 2046AF30C4 | AF3-4 | HI675-45-50*675 | 1 | 10753.52 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 03/03/2015 | 349 |
| 494 | Column | 2046AF30LPL5 | AF3-5 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 15/01/2015 | 331 |
| 495 | Column | 2046AF30LPL6 | AF3-6 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 10/01/2015 | 329 |
| 496 | Column | 2046AF30LPL7 | AF3-7 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 15/01/2015 | 331 |
| 497 | Column | 2046AF30LPL8 | AF3-8 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 10/01/2015 | 329 |
| 498 | Column | 2046AF30LPL9 | AF3-9 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 10/01/2015 | 329 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 499 | Column | 2046AF30LPL10 | AF3-10 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 10/01/2015 | 329 |
| 500 | Column | 2046AF30LPL11 | AF3-11 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 15/01/2015 | 331 |
| 501 | Column | 2046AF30LPL12 | AF3-12 | PL50*350 | 1 | 126.38 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 10/01/2015 | 329 |
| 502 | Column | 2046AF30LPL13 | AF3-13 | PL45*845 | 1 | 274.62 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 26/01/2015 | 334 |
| 503 | Column | 2046AF30LPL14 | AF3-14 | PL45*845 | 1 | 274.62 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 26/01/2015 | 334 |
| 504 | Column | 2046AF30LPL15 | AF3-15 | PL45*845 | 1 | 274.62 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 26/01/2015 | 334 |
| 505 | Column | 2046AF30LPL16 | AF3-16 | PL45*845 | 1 | 274.62 | A | 3 | 13.3-13.4 | With Intumescent | Romania | 02/10/2014 | 26/01/2015 | 334 |
| 506 | Column | 2046AF30LPL17 | AF3-17 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 507 | Column | 2046AF30LPL18 | AF3-18 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 508 | Column | 2046AF30LPL19 | AF3-19 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 509 | Column | 2046AF30LPL20 | AF3-20 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 510 | Column | 2046AF30LPL21 | AF3-21 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 511 | Column | 2046AF30LPL22 | AF3-22 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 512 | Column | 2046AF30LPL23 | AF3-23 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 513 | Column | 2046AF30LPL24 | AF3-24 | PL40*270 | 1 | 62.74 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 514 | Column | 2046AF30LPL25 | AF3-25 | PL35*400 | 1 | 66.60 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 515 | Column | 2046AF30LPL26 | AF3-26 | PL35*400 | 1 | 66.60 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 516 | Column | 2046AF30LPL27 | AF3-27 | PL35*400 | 1 | 66.60 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 517 | Column | 2046AF30LPL28 | AF3-28 | PL35*400 | 1 | 66.60 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 518 | Column | 2046AF30LPL29 | AF3-29 | PL30*655 | 1 | 114.15 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 519 | Column | 2046AF30LPL30 | AF3-30 | PL30*655 | 1 | 114.15 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 520 | Column | 2046AF30LPL31 | AF3-31 | PL30*655 | 1 | 114.15 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 521 | Column | 2046AF30LPL32 | AF3-32 | PL30*655 | 1 | 114.15 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 522 | Column | 2046AF30LPL33 | AF3-33 | PL30*740 | 1 | 203.90 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 523 | Column | 2046AF30LPL34 | AF3-34 | PL30*740 | 1 | 203.90 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 524 | Column | 2046AF30LPL35 | AF3-35 | PL30*740 | 1 | 203.90 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 525 | Column | 2046AF30LPL36 | AF3-36 | PL30*740 | 1 | 203.90 | A | 3 | 13.3-13.4 | With Intumescent | Portugal | 02/10/2014 | 02/02/2015 | 30 |
| 526 | Column | 2046GF40C1 | GF4-1 | HI675-45-50*675 | 1 | 7762.44 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 527 | Column | 2046GF40C2 | GF4-2 | HI1500-45-70*825 | 1 | 18545.72 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 21/02/2015 | 345 |
| 528 | Column | 2046GF40LPL3 | GF4-3 | PL50*320 | 1 | 155.74 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 529 | Column | 2046GF40LPL4 | GF4-4 | PL50*320 | 1 | 155.74 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 530 | Column | 2046GF40LPL5 | GF4-5 | PL50*320 | 1 | 155.74 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 531 | Column | 2046GF40LPL6 | GF4-6 | PL50*320 | 1 | 155.74 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 532 | Column | 2046GF40LPL7 | GF4-7 | PL40*270 | 1 | 101.74 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 27/03/2015 | 59 |
| 533 | Column | 2046GF40LPL8 | GF4-8 | PL40*270 | 1 | 101.74 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 27/03/2015 | 59 |
| 534 | Column | 2046GF40LPL9 | GF4-9 | PL40*270 | 1 | 101.74 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 25/03/2015 | 56 |
| 535 | Column | 2046GF40LPL10 | GF4-10 | PL40*270 | 1 | 101.74 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 27/03/2015 | 59 |
| 536 | Column | 2046GF40LPL11 | GF4-11 | PL35*805 | 1 | 274.26 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 18/03/2015 | 53 |
| 537 | Column | 2046GF40LPL12 | GF4-12 | PL35*805 | 1 | 274.26 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 08/04/2015 | 63 |
| 538 | Column | 2046GF40LPL13 | GF4-13 | PL35*400 | 1 | 66.60 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 20/03/2015 | 54 |
| 539 | Column | 2046GF40LPL14 | GF4-14 | PL35*400 | 1 | 66.60 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 20/03/2015 | 54 |
| 540 | Column | 2046GF40LPL15 | GF4-15 | PL30*655 | 1 | 185.10 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 541 | Column | 2046GF40LPL16 | GF4-16 | PL30*655 | 1 | 185.10 | G | 4 | 13.3-13.4 | Without Intumescent | Romania | 13/11/2014 | 15/03/2015 | 354 |
| 542 | Column | 2046GF40LPL17 | GF4-17 | PL25*1060 | 1 | 241.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 27/03/2015 | 59 |
| 543 | Column | 2046GF40LPL18 | GF4-18 | PL25*1060 | 1 | 241.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 13/11/2014 | 27/03/2015 | 59 |
| 544 | Column | 2046JF13C3 | JF1-3 | HI675-45-50*675 | 1 | 12296.74 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 20/11/2014 | 12/01/2015 | 22 |
| 545 | Column | 2046JF13C4 | JF1-4 | HI1500-45-70*825 | 1 | 23374.98 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 20/11/2014 | 23/01/2015 | 26 |
| 546 | Column | 2046DF40C1 | DF4-1 | HI675-45-50*675 | 1 | 7762.44 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 03/04/2015 | 362 |
| 547 | Column | 2046DF40C2 | DF4-2 | HI1500-45-70*825 | 1 | 18545.72 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 548 | Column | 2046DF40LPL3 | DF4-3 | PL50*320 | 1 | 155.74 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 549 | Column | 2046DF40LPL4 | DF4-4 | PL50*320 | 1 | 155.74 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 550 | Column | 2046DF40LPL5 | DF4-5 | PL50*320 | 1 | 155.74 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 551 | Column | 2046DF40LPL6 | DF4-6 | PL50*320 | 1 | 155.74 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 552 | Column | 2046DF40LPL7 | DF4-7 | PL40*270 | 1 | 101.74 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 553 | Column | 2046DF40LPL8 | DF4-8 | PL40*270 | 1 | 101.74 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 554 | Column | 2046DF40LPL9 | DF4-9 | PL40*270 | 1 | 101.74 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 555 | Column | 2046DF40LPL10 | DF4-10 | PL40*270 | 1 | 101.74 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 556 | Column | 2046DF40LPL11 | DF4-11 | PL35*805 | 1 | 274.26 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 557 | Column | 2046DF40LPL12 | DF4-12 | PL35*805 | 1 | 274.26 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 558 | Column | 2046DF40LPL13 | DF4-13 | PL35*400 | 1 | 66.60 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 559 | Column | 2046DF40LPL14 | DF4-14 | PL35*400 | 1 | 66.60 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 560 | Column | 2046DF40LPL15 | DF4-15 | PL30*655 | 1 | 185.10 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 561 | Column | 2046DF40LPL16 | DF4-16 | PL30*655 | 1 | 185.10 | D | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 562 | Column | 2046DF40LPL17 | DF4-17 | PL25*1060 | 1 | 241.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 13/04/2015 | 67 |
| 563 | Column | 2046DF40LPL18 | DF4-18 | PL25*1060 | 1 | 241.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 564 | Column | 2046EF40C1 | EF4-1 | HI675-45-50*675 | 1 | 7763.06 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 25/03/2015 | 358 |
| 565 | Column | 2046EF40C2 | EF4-2 | HI1500-45-70*825 | 1 | 18535.66 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 25/02/2015 | 346 |
| 566 | Column | 2046EF40LPL3 | EF4-3 | PL50*320 | 1 | 155.74 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 567 | Column | 2046EF40LPL4 | EF4-4 | PL50*320 | 1 | 155.74 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 568 | Column | 2046EF40LPL5 | EF4-5 | PL50*320 | 1 | 155.74 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 569 | Column | 2046EF40LPL6 | EF4-6 | PL50*320 | 1 | 155.74 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 570 | Column | 2046EF40LPL7 | EF4-7 | PL40*270 | 1 | 101.74 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 571 | Column | 2046EF40LPL8 | EF4-8 | PL40*270 | 1 | 101.74 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 572 | Column | 2046EF40LPL9 | EF4-9 | PL40*270 | 1 | 101.74 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 573 | Column | 2046EF40LPL10 | EF4-10 | PL40*270 | 1 | 101.74 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 574 | Column | 2046EF40LPL11 | EF4-11 | PL35*805 | 1 | 274.26 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 575 | Column | 2046EF40LPL12 | EF4-12 | PL35*805 | 1 | 274.26 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 576 | Column | 2046EF40LPL13 | EF4-13 | PL35*400 | 1 | 66.60 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 577 | Column | 2046EF40LPL14 | EF4-14 | PL35*400 | 1 | 66.60 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 578 | Column | 2046EF40LPL15 | EF4-15 | PL30*655 | 1 | 185.10 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 579 | Column | 2046EF40LPL16 | EF4-16 | PL30*655 | 1 | 185.10 | E | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 580 | Column | 2046EF40LPL17 | EF4-17 | PL25*1060 | 1 | 241.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |
| 581 | Column | 2046EF40LPL18 | EF4-18 | PL25*1060 | 1 | 241.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/07/2015 | 155 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 582 | Column | 2046FF40C1 | FF4-1 | HI675-45-50*675 | 1 | 7763.53 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 22/03/2015 | 357 |
| 583 | Column | 2046FF40C2 | FF4-2 | HI1500-45-70*825 | 1 | 18535.75 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 20/02/2015 | 343 |
| 584 | Column | 2046FF40LPL3 | FF4-3 | PL50*320 | 1 | 155.74 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 585 | Column | 2046FF40LPL4 | FF4-4 | PL50*320 | 1 | 155.74 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 586 | Column | 2046FF40LPL5 | FF4-5 | PL50*320 | 1 | 155.74 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 587 | Column | 2046FF40LPL6 | FF4-6 | PL50*320 | 1 | 155.74 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 588 | Column | 2046FF40LPL7 | FF4-7 | PL40*270 | 1 | 101.74 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 589 | Column | 2046FF40LPL8 | FF4-8 | PL40*270 | 1 | 101.74 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 27/03/2015 | 59 |
| 590 | Column | 2046FF40LPL9 | FF4-9 | PL40*270 | 1 | 101.74 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 591 | Column | 2046FF40LPL10 | FF4-10 | PL40*270 | 1 | 101.74 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 25/03/2015 | 56 |
| 592 | Column | 2046FF40LPL11 | FF4-11 | PL35*805 | 1 | 274.26 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 18/03/2015 | 53 |
| 593 | Column | 2046FF40LPL12 | FF4-12 | PL35*805 | 1 | 274.26 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 18/03/2015 | 53 |
| 594 | Column | 2046FF40LPL13 | FF4-13 | PL35*400 | 1 | 66.60 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 20/03/2015 | 54 |
| 595 | Column | 2046FF40LPL14 | FF4-14 | PL35*400 | 1 | 66.60 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 20/03/2015 | 54 |
| 596 | Column | 2046FF40LPL15 | FF4-15 | PL30*655 | 1 | 185.10 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 597 | Column | 2046FF40LPL16 | FF4-16 | PL30*655 | 1 | 185.10 | F | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 15/03/2015 | 354 |
| 598 | Column | 2046FF40LPL17 | FF4-17 | PL25*1060 | 1 | 241.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 13/04/2015 | 67 |
| 599 | Column | 2046FF40LPL18 | FF4-18 | PL25*1060 | 1 | 241.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 13/04/2015 | 67 |
| 600 | Column | 2046JF40C1 | JF4-1 | HI675-45-50*675 | 1 | 7774.33 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 19/03/2015 | 355 |
| 601 | Column | 2046JF40C2 | JF4-2 | HI1500-45-70*825 | 1 | 18485.63 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 18/02/2015 | 340 |
| 602 | Column | 2046JF40LPL3 | JF4-3 | PL50*320 | 1 | 155.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 603 | Column | 2046JF40LPL4 | JF4-4 | PL50*320 | 1 | 155.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 604 | Column | 2046JF40LPL5 | JF4-5 | PL50*320 | 1 | 155.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 605 | Column | 2046JF40LPL6 | JF4-6 | PL50*320 | 1 | 155.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 606 | Column | 2046JF40LPL7 | JF4-7 | PL40*270 | 1 | 101.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 607 | Column | 2046JF40LPL8 | JF4-8 | PL40*270 | 1 | 101.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 608 | Column | 2046JF40LPL9 | JF4-9 | PL40*270 | 1 | 101.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 609 | Column | 2046JF40LPL10 | JF4-10 | PL40*270 | 1 | 101.74 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 610 | Column | 2046JF40LPL11 | JF4-11 | PL35*805 | 1 | 274.26 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 18/03/2015 | 53 |
| 611 | Column | 2046JF40LPL12 | JF4-12 | PL35*805 | 1 | 274.26 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 18/03/2015 | 53 |
| 612 | Column | 2046JF40LPL13 | JF4-13 | PL35*400 | 1 | 66.60 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 20/03/2015 | 54 |
| 613 | Column | 2046JF40LPL14 | JF4-14 | PL35*400 | 1 | 66.60 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 20/03/2015 | 54 |
| 614 | Column | 2046JF40LPL15 | JF4-15 | PL30*655 | 1 | 185.10 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 615 | Column | 2046JF40LPL16 | JF4-16 | PL30*655 | 1 | 185.10 | J | 4 | 13.3-13.4 | Without Intumescent | Romania | 17/11/2014 | 05/03/2015 | 351 |
| 616 | Column | 2046JF40LPL17 | JF4-17 | PL25*1060 | 1 | 241.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 13/04/2015 | 67 |
| 617 | Column | 2046JF40LPL18 | JF4-18 | PL25*1060 | 1 | 241.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/11/2014 | 13/04/2015 | 67 |
| 618 | Column | 2046IF13C3 | IF1-3 | HI675-45-50*675 | 1 | 12183.56 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 02/12/2014 | 19/01/2015 | 24 |
| 619 | Column | 2046IF13C4 | IF1-4 | HI1500-45-70*825 | 1 | 23585.06 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 02/12/2014 | 26/01/2015 | 27 |
| 620 | Column | 2046AF50C1 | AF5-1 | HI1500-50-85*855 | 1 | 18229.07 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 621 | Column | 2046AF50C2 | AF5-2 | HI1500-50-85*855 | 1 | 18748.27 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 25/04/2015 | 366 |
| 622 | Column | 2046AF50LPL3 | AF5-3 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 623 | Column | 2046AF50LPL4 | AF5-4 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 624 | Column | 2046AF50LPL5 | AF5-5 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 625 | Column | 2046AF50LPL6 | AF5-6 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 626 | Column | 2046AF50LPL7 | AF5-7 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 627 | Column | 2046AF50LPL8 | AF5-8 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 628 | Column | 2046AF50LPL9 | AF5-9 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 629 | Column | 2046AF50LPL10 | AF5-10 | PL50*350 | 1 | 126.38 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 24/07/2015 | 380 |
| 630 | Column | 2046AF50LPL11 | AF5-11 | PL45*845 | 1 | 274.62 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 631 | Column | 2046AF50LPL12 | AF5-12 | PL45*845 | 1 | 274.62 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 632 | Column | 2046AF50LPL13 | AF5-13 | PL45*845 | 1 | 274.62 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 633 | Column | 2046AF50LPL14 | AF5-14 | PL45*845 | 1 | 274.62 | A | 5 | 13.3-13.4 | With Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 634 | Column | 2046AF50LPL15 | AF5-15 | PL30*740 | 1 | 203.90 | A | 5 | 13.3-13.4 | With Intumescent | Portugal | 05/12/2014 | 13/04/2015 | 67 |
| 635 | Column | 2046AF50LPL16 | AF5-16 | PL30*740 | 1 | 203.90 | A | 5 | 13.3-13.4 | With Intumescent | Portugal | 05/12/2014 | 13/04/2015 | 67 |
| 636 | Column | 2046AF50LPL17 | AF5-17 | PL30*740 | 1 | 203.90 | A | 5 | 13.3-13.4 | With Intumescent | Portugal | 05/12/2014 | 13/04/2015 | 67 |
| 637 | Column | 2046AF50LPL18 | AF5-18 | PL30*740 | 1 | 203.90 | A | 5 | 13.3-13.4 | With Intumescent | Portugal | 05/12/2014 | 13/04/2015 | 67 |
| 638 | Column | 2046BF50C1 | BF5-1 | HI1500-50-85*855 | 1 | 18728.89 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 31/03/2015 | 361 |
| 639 | Column | 2046BF50LPL2 | BF5-2 | PL50*350 | 1 | 126.38 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 640 | Column | 2046BF50LPL3 | BF5-3 | PL50*350 | 1 | 126.38 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 641 | Column | 2046BF50LPL4 | BF5-4 | PL50*350 | 1 | 126.38 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 642 | Column | 2046BF50LPL5 | BF5-5 | PL50*350 | 1 | 126.38 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 643 | Column | 2046BF50LPL6 | BF5-6 | PL45*845 | 1 | 274.62 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 644 | Column | 2046BF50LPL7 | BF5-7 | PL45*845 | 1 | 274.62 | B | 5 | 13.3-13.4 | Without Intumescent | Romania | 05/12/2014 | 08/05/2015 | 367 |
| 645 | Column | 2046BF50LPL8 | BF5-8 | PL30*740 | 1 | 203.90 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/12/2014 | 27/03/2015 | 59 |
| 646 | Column | 2046BF50LPL9 | BF5-9 | PL30*740 | 1 | 203.90 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/12/2014 | 13/04/2015 | 67 |
| 647 | Column | 2046CF50C9 | CF5-9 | HI1500-50-85*855 | 1 | 18268.80 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 29/03/2015 | 360 |
| 648 | Column | 2046CF50LPL1 | CF5-1 | PL50*350 | 1 | 126.38 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 08/05/2015 | 367 |
| 649 | Column | 2046CF50LPL2 | CF5-2 | PL50*350 | 1 | 126.38 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 08/05/2015 | 367 |
| 650 | Column | 2046CF50LPL3 | CF5-3 | PL50*350 | 1 | 126.38 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 08/05/2015 | 367 |
| 651 | Column | 2046CF50LPL4 | CF5-4 | PL50*350 | 1 | 126.38 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 08/05/2015 | 367 |
| 652 | Column | 2046CF50LPL5 | CF5-5 | PL45*845 | 1 | 274.62 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 08/05/2015 | 367 |
| 653 | Column | 2046CF50LPL6 | CF5-6 | PL45*845 | 1 | 274.62 | C | 5 | 13.3-13.4 | Without Intumescent | Romania | 09/12/2014 | 08/05/2015 | 367 |
| 654 | Column | 2046CF50LPL7 | CF5-7 | PL30*740 | 1 | 203.90 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/12/2014 | 13/04/2015 | 67 |
| 655 | Column | 2046CF50LPL8 | CF5-8 | PL30*740 | 1 | 203.90 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/12/2014 | 13/04/2015 | 67 |
| 656 | Column | 2046DF50C1 | DF5-1 | HI1500-45-70*825 | 1 | 14840.28 | D | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/04/2015 | 363 |
| 657 | Column | 2046DF50LPL2 | DF5-2 | PL50*320 | 1 | 115.55 | D | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 658 | Column | 2046DF50LPL3 | DF5-3 | PL50*320 | 1 | 115.55 | D | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 659 | Column | 2046DF50LPL4 | DF5-4 | PL50*320 | 1 | 115.55 | D | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 660 | Column | 2046DF50LPL5 | DF5-5 | PL50*320 | 1 | 115.55 | D | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 661 | Column | 2046DF50LPL6 | DF5-6 | PL35*805 | 1 | 203.48 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 08/04/2015 | 63 |
| 662 | Column | 2046DF50LPL7 | DF5-7 | PL35*805 | 1 | 203.48 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 08/04/2015 | 63 |
| 663 | Column | 2046DF50LPL8 | DF5-8 | PL25*740 | 1 | 169.91 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 27/03/2015 | 59 |
| 664 | Column | 2046DF50LPL9 | DF5-9 | PL25*740 | 1 | 169.91 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 27/03/2015 | 59 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 665 | Column | 2046EF50C1 | EF5-1 | HI1500-45-70*825 | 1 | 14840.28 | E | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 27/03/2015 | 359 |
| 666 | Column | 2046EF50LPL2 | EF5-2 | PL50*320 | 1 | 115.55 | E | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 667 | Column | 2046EF50LPL3 | EF5-3 | PL50*320 | 1 | 115.55 | E | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 668 | Column | 2046EF50LPL4 | EF5-4 | PL50*320 | 1 | 115.55 | E | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 669 | Column | 2046EF50LPL5 | EF5-5 | PL50*320 | 1 | 115.55 | E | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 670 | Column | 2046EF50LPL6 | EF5-6 | PL35*805 | 1 | 203.48 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 27/03/2015 | 59 |
| 671 | Column | 2046EF50LPL7 | EF5-7 | PL35*805 | 1 | 203.48 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 27/03/2015 | 59 |
| 672 | Column | 2046EF50LPL8 | EF5-8 | PL25*740 | 1 | 169.91 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 27/03/2015 | 59 |
| 673 | Column | 2046EF50LPL9 | EF5-9 | PL25*740 | 1 | 169.91 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 01/08/2015 | 166 |
| 674 | Column | 2046FF50C1 | FF5-1 | HI1500-45-70*825 | 1 | 14840.28 | F | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 22/03/2015 | 357 |
| 675 | Column | 2046FF50LPL2 | FF5-2 | PL50*320 | 1 | 115.55 | F | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 676 | Column | 2046FF50LPL3 | FF5-3 | PL50*320 | 1 | 115.55 | F | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 677 | Column | 2046FF50LPL4 | FF5-4 | PL50*320 | 1 | 115.55 | F | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 678 | Column | 2046FF50LPL5 | FF5-5 | PL50*320 | 1 | 115.55 | F | 5 | 13.3-13.4 | Without Intumescent | Romania | 10/12/2014 | 08/05/2015 | 367 |
| 679 | Column | 2046FF50LPL6 | FF5-6 | PL35*805 | 1 | 203.48 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 27/03/2015 | 59 |
| 680 | Column | 2046FF50LPL7 | FF5-7 | PL35*805 | 1 | 203.48 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 13/04/2015 | 67 |
| 681 | Column | 2046FF50LPL8 | FF5-8 | PL25*740 | 1 | 169.91 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 13/04/2015 | 67 |
| 682 | Column | 2046FF50LPL9 | FF5-9 | PL25*740 | 1 | 169.91 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/12/2014 | 01/08/2015 | 166 |
| 683 | Column | 2046GF50C1 | GF5-1 | HI1500-45-70*825 | 1 | 14840.28 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 03/04/2015 | 362 |
| 684 | Column | 2046GF50LPL2 | GF5-2 | PL50*320 | 1 | 115.55 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 685 | Column | 2046GF50LPL3 | GF5-3 | PL50*320 | 1 | 115.55 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 686 | Column | 2046GF50LPL4 | GF5-4 | PL50*320 | 1 | 115.55 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 687 | Column | 2046GF50LPL5 | GF5-5 | PL50*320 | 1 | 115.55 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 688 | Column | 2046GF50LPL6 | GF5-6 | PL35*805 | 1 | 203.48 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 689 | Column | 2046GF50LPL7 | GF5-7 | PL35*805 | 1 | 203.48 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 690 | Column | 2046GF50LPL8 | GF5-8 | PL25*740 | 1 | 169.91 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 11/12/2014 | 01/08/2015 | 166 |
| 691 | Column | 2046GF50LPL9 | GF5-9 | PL25*740 | 1 | 169.91 | G | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 692 | Column | 2046HF50C1 | HF5-1 | HI1500-45-70*825 | 1 | 14841.04 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 25/03/2015 | 358 |
| 693 | Column | 2046HF50LPL2 | HF5-2 | PL50*320 | 1 | 115.55 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 694 | Column | 2046HF50LPL3 | HF5-3 | PL50*320 | 1 | 115.55 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 695 | Column | 2046HF50LPL4 | HF5-4 | PL50*320 | 1 | 115.55 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 696 | Column | 2046HF50LPL5 | HF5-5 | PL50*320 | 1 | 115.55 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 697 | Column | 2046HF50LPL6 | HF5-6 | PL35*805 | 1 | 203.48 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 698 | Column | 2046HF50LPL7 | HF5-7 | PL35*805 | 1 | 203.48 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 699 | Column | 2046HF50LPL8 | HF5-8 | PL25*740 | 1 | 169.91 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 700 | Column | 2046HF50LPL9 | HF5-9 | PL25*740 | 1 | 169.91 | H | 5 | 13.3-13.4 | Without Intumescent | Romania | 11/12/2014 | 08/05/2015 | 367 |
| 701 | Column | 2046IF50C1 | IF5-1 | HI1500-45-70*825 | 1 | 14840.28 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 20/03/2015 | 356 |
| 702 | Column | 2046IF50LPL2 | IF5-2 | PL50*320 | 1 | 115.55 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 703 | Column | 2046IF50LPL3 | IF5-3 | PL50*320 | 1 | 115.55 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 704 | Column | 2046IF50LPL4 | IF5-4 | PL50*320 | 1 | 115.55 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 24/07/2015 | 380 |
| 705 | Column | 2046IF50LPL5 | IF5-5 | PL50*320 | 1 | 115.55 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 706 | Column | 2046IF50LPL6 | IF5-6 | PL35*805 | 1 | 203.48 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 707 | Column | 2046IF50LPL7 | IF5-7 | PL35*805 | 1 | 203.48 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 708 | Column | 2046IF50LPL8 | IF5-8 | PL25*740 | 1 | 169.91 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 709 | Column | 2046IF50LPL9 | IF5-9 | PL25*740 | 1 | 169.91 | I | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 710 | Column | 2046JF50C1 | JF5-1 | HI1500-45-70*825 | 1 | 14659.88 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 19/03/2015 | 355 |
| 711 | Column | 2046JF50LPL2 | JF5-2 | PL50*320 | 1 | 115.55 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 712 | Column | 2046JF50LPL3 | JF5-3 | PL50*320 | 1 | 115.55 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 713 | Column | 2046JF50LPL4 | JF5-4 | PL50*320 | 1 | 115.55 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 714 | Column | 2046JF50LPL5 | JF5-5 | PL50*320 | 1 | 115.55 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 715 | Column | 2046JF50LPL6 | JF5-6 | PL35*805 | 1 | 203.48 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 716 | Column | 2046JF50LPL7 | JF5-7 | PL35*805 | 1 | 203.48 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 717 | Column | 2046JF50LPL8 | JF5-8 | PL25*740 | 1 | 169.91 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 718 | Column | 2046JF50LPL9 | JF5-9 | PL25*740 | 1 | 169.91 | J | 5 | 13.3-13.4 | Without Intumescent | Romania | 15/12/2014 | 08/05/2015 | 367 |
| 719 | Column | 2046HF13C3 | HF1-3 | HI675-45-50*675 | 1 | 12178.20 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 15/12/2014 | 06/02/2015 | 33 |
| 720 | Column | 2046HF13C4 | HF1-4 | HI1500-45-70*825 | 1 | 23589.31 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 15/12/2014 | 13/02/2015 | 35 |
| 721 | Column | 2046GF13C3 | GF1-3 | HI675-45-50*675 | 1 | 12151.55 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 15/12/2014 | 06/02/2015 | 33 |
| 722 | Column | 2046GF13C4 | GF1-4 | HI1500-45-70*825 | 1 | 23575.51 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 15/12/2014 | 30/01/2015 | 29 |
| 723 | Column | 2046FF13C3 | FF1-3 | HI675-45-50*675 | 1 | 12151.55 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 07/01/2015 | 10/02/2015 | 34 |
| 724 | Column | 2046FF13C4 | FF1-4 | HI1500-45-70*825 | 1 | 23579.76 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 07/01/2015 | 18/02/2015 | 38 |
| 725 | Column | 2046EF13C3 | EF1-3 | HI675-45-50*675 | 1 | 12151.55 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 08/01/2015 | 16/02/2015 | 37 |
| 726 | Column | 2046EF13C4 | EF1-4 | HI1500-45-70*825 | 1 | 23567.01 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 08/01/2015 | 19/02/2015 | 39 |
| 727 | Column | 2046DF13C3 | DF1-3 | HI675-45-50*675 | 1 | 12151.55 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 14/01/2015 | 24/02/2015 | 42 |
| 728 | Column | 2046DF13C4 | DF1-4 | HI1500-45-70*825 | 1 | 23573.86 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 14/01/2015 | 20/02/2015 | 40 |
| 729 | Column | 2046CF13C3 | CF1-3 | HI1500-50-85*855 | 1 | 29576.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 14/01/2015 | 19/03/2015 | 51 |
| 730 | Column | 2046CF13C4 | CF1-4 | HI675-45-50*675 | 1 | 12795.13 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 14/01/2015 | 27/02/2015 | 44 |
| 731 | Column | 2046BF13C3 | BF1-3 | HI1500-50-85*855 | 1 | 30079.93 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 14/01/2015 | 30/03/2015 | 60 |
| 732 | Column | 2046BF13C4 | BF1-4 | HI675-45-50*675 | 1 | 13178.22 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 14/01/2015 | 02/03/2015 | 45 |
| 733 | Column | 2046AF13C5 | AF1-5 | HI1500-50-85*855 | 1 | 30087.24 | A | 1 | 13.1-13.2 | With Intumescent | Portugal | 14/01/2015 | 27/04/2015 | 75 |
| 734 | Column | 2046AF13C6 | AF1-6 | HI1500-50-85*855 | 1 | 29640.70 | A | 1 | 13.1-13.2 | With Intumescent | Portugal | 14/01/2015 | 30/04/2015 | 78 |
| 735 | Column | 2046AF13C7 | AF1-7 | HI675-45-50*675 | 1 | 13227.32 | A | 1 | 13.1-13.2 | With Intumescent | Portugal | 14/01/2015 | 17/04/2015 | 70 |
| 736 | Column | 2046AF13C8 | AF1-8 | HI675-45-50*675 | 1 | 13203.26 | A | 1 | 13.1-13.2 | With Intumescent | Portugal | 14/01/2015 | 25/03/2015 | 55 |
| 737 | Column | 2046DF23C35 | DF2-35 | HI675-45-50*675 | 1 | 8312.96 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 738 | Column | 2046DF23C36 | DF2-36 | HI1500-45-70*825 | 1 | 14662.01 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 739 | Column | 2046DF23LPL19 | DF2-19 | PL50*320 | 1 | 155.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 740 | Column | 2046DF23LPL20 | DF2-20 | PL50*320 | 1 | 155.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 741 | Column | 2046DF23LPL21 | DF2-21 | PL50*320 | 1 | 155.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 742 | Column | 2046DF23LPL22 | DF2-22 | PL50*320 | 1 | 155.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 743 | Column | 2046DF23LPL23 | DF2-23 | PL40*270 | 1 | 101.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 744 | Column | 2046DF23LPL24 | DF2-24 | PL40*270 | 1 | 101.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 745 | Column | 2046DF23LPL25 | DF2-25 | PL40*270 | 1 | 101.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 746 | Column | 2046DF23LPL26 | DF2-26 | PL40*270 | 1 | 101.74 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 747 | Column | 2046DF23LPL27 | DF2-27 | PL35*805 | 1 | 274.26 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 748 | Column | 2046DF23LPL28 | DF2-28 | PL35*805 | 1 | 274.26 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 749 | Column | 2046DF23LPL29 | DF2-29 | PL35*400 | 1 | 66.60 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 750 | Column | 2046DF23LPL30 | DF2-30 | PL35*400 | 1 | 66.60 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 751 | Column | 2046DF23LPL31 | DF2-31 | PL30*655 | 1 | 185.10 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 752 | Column | 2046DF23LPL32 | DF2-32 | PL30*655 | 1 | 185.10 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 753 | Column | 2046DF23LPL33 | DF2-33 | PL25*1060 | 1 | 241.31 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 754 | Column | 2046DF23LPL34 | DF2-34 | PL25*1060 | 1 | 241.31 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 755 | Column | 2046EF23C35 | EF2-35 | HI675-45-50*675 | 1 | 8312.96 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 02/04/2015 | 61 |
| 756 | Column | 2046EF23C36 | EF2-36 | HI1500-45-70*825 | 1 | 14662.01 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 02/04/2015 | 61 |
| 757 | Column | 2046EF23LPL19 | EF2-19 | PL50*320 | 1 | 155.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 758 | Column | 2046EF23LPL20 | EF2-20 | PL50*320 | 1 | 155.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 759 | Column | 2046EF23LPL21 | EF2-21 | PL50*320 | 1 | 155.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 760 | Column | 2046EF23LPL22 | EF2-22 | PL50*320 | 1 | 155.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 761 | Column | 2046EF23LPL23 | EF2-23 | PL40*270 | 1 | 101.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 13/04/2015 | 67 |
| 762 | Column | 2046EF23LPL24 | EF2-24 | PL40*270 | 1 | 101.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 763 | Column | 2046EF23LPL25 | EF2-25 | PL40*270 | 1 | 101.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 764 | Column | 2046EF23LPL26 | EF2-26 | PL40*270 | 1 | 101.74 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 765 | Column | 2046EF23LPL27 | EF2-27 | PL35*805 | 1 | 274.26 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 766 | Column | 2046EF23LPL28 | EF2-28 | PL35*805 | 1 | 274.26 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 767 | Column | 2046EF23LPL29 | EF2-29 | PL35*400 | 1 | 66.60 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 768 | Column | 2046EF23LPL30 | EF2-30 | PL35*400 | 1 | 66.60 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 769 | Column | 2046EF23LPL31 | EF2-31 | PL30*655 | 1 | 185.10 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 770 | Column | 2046EF23LPL32 | EF2-32 | PL30*655 | 1 | 185.10 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 771 | Column | 2046EF23LPL33 | EF2-33 | PL25*1060 | 1 | 241.31 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 772 | Column | 2046EF23LPL34 | EF2-34 | PL25*1060 | 1 | 241.31 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 773 | Column | 2046AF23C69 | AF2-69 | HI1500-50-85*855 | 1 | 18157.28 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 13/04/2015 | 67 |
| 774 | Column | 2046AF23C70 | AF2-70 | HI1500-50-85*855 | 1 | 18030.61 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 775 | Column | 2046AF23C71 | AF2-71 | HI675-45-50*675 | 1 | 8699.93 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 04/05/2015 | 76 |
| 776 | Column | 2046AF23C72 | AF2-72 | HI675-45-50*675 | 1 | 8686.40 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 71 |
| 777 | Column | 2046AF23LPL37 | AF2-37 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 778 | Column | 2046AF23LPL38 | AF2-38 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 779 | Column | 2046AF23LPL39 | AF2-39 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 780 | Column | 2046AF23LPL40 | AF2-40 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 781 | Column | 2046AF23LPL41 | AF2-41 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 782 | Column | 2046AF23LPL42 | AF2-42 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 783 | Column | 2046AF23LPL43 | AF2-43 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 784 | Column | 2046AF23LPL44 | AF2-44 | PL50*350 | 1 | 170.34 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 785 | Column | 2046AF23LPL45 | AF2-45 | PL45*845 | 1 | 370.14 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 786 | Column | 2046AF23LPL46 | AF2-46 | PL45*845 | 1 | 370.14 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 787 | Column | 2046AF23LPL47 | AF2-47 | PL45*845 | 1 | 370.14 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 788 | Column | 2046AF23LPL49 | AF2-49 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 789 | Column | 2046AF23LPL50 | AF2-50 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 790 | Column | 2046AF23LPL51 | AF2-51 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 791 | Column | 2046AF23LPL52 | AF2-52 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 792 | Column | 2046AF23LPL53 | AF2-53 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 793 | Column | 2046AF23LPL54 | AF2-54 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 794 | Column | 2046AF23LPL55 | AF2-55 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 795 | Column | 2046AF23LPL56 | AF2-56 | PL40*270 | 1 | 101.74 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 796 | Column | 2046AF23LPL57 | AF2-57 | PL35*400 | 1 | 66.60 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 797 | Column | 2046AF23LPL58 | AF2-58 | PL35*400 | 1 | 66.60 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 798 | Column | 2046AF23LPL59 | AF2-59 | PL35*400 | 1 | 66.60 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/07/2015 | 155 |
| 799 | Column | 2046AF23LPL60 | AF2-60 | PL35*400 | 1 | 66.60 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 800 | Column | 2046AF23LPL61 | AF2-61 | PL30*655 | 1 | 185.10 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 801 | Column | 2046AF23LPL62 | AF2-62 | PL30*655 | 1 | 185.10 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 802 | Column | 2046AF23LPL63 | AF2-63 | PL30*655 | 1 | 185.10 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 803 | Column | 2046AF23LPL64 | AF2-64 | PL30*655 | 1 | 185.10 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 804 | Column | 2046AF23LPL65 | AF2-65 | PL30*1060 | 1 | 289.57 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 805 | Column | 2046AF23LPL66 | AF2-66 | PL30*1060 | 1 | 289.57 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 06/05/2015 | 79 |
| 806 | Column | 2046AF23LPL67 | AF2-67 | PL30*1060 | 1 | 289.57 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 807 | Column | 2046AF23V48 | AF2-48 | PL45*845 | 1 | 382.93 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 04/05/2015 | 76 |
| 808 | Column | 2046AF23V68 | AF2-68 | PL30*1060 | 1 | 308.06 | A | 2 | 13.1-13.2 | With Intumescent | Portugal | 18/02/2015 | 12/06/2015 | 105 |
| 809 | Column | 2046BF23C35 | BF2-35 | HI1500-50-85*855 | 1 | 18147.74 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 26/03/2015 | 57 |
| 810 | Column | 2046BF23C36 | BF2-36 | HI675-45-50*675 | 1 | 8659.86 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 18/03/2015 | 52 |
| 811 | Column | 2046BF23LPL19 | BF2-19 | PL50*350 | 1 | 170.34 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 67 |
| 812 | Column | 2046BF23LPL20 | BF2-20 | PL50*350 | 1 | 170.34 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 813 | Column | 2046BF23LPL21 | BF2-21 | PL50*350 | 1 | 170.34 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 67 |
| 814 | Column | 2046BF23LPL22 | BF2-22 | PL50*350 | 1 | 170.34 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 04/05/2015 | 76 |
| 815 | Column | 2046BF23LPL23 | BF2-23 | PL45*845 | 1 | 370.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 816 | Column | 2046BF23LPL24 | BF2-24 | PL45*845 | 1 | 370.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 817 | Column | 2046BF23LPL25 | BF2-25 | PL40*270 | 1 | 101.74 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 64 |
| 818 | Column | 2046BF23LPL26 | BF2-26 | PL40*270 | 1 | 101.74 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 64 |
| 819 | Column | 2046BF23LPL27 | BF2-27 | PL40*270 | 1 | 101.74 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 64 |
| 820 | Column | 2046BF23LPL28 | BF2-28 | PL40*270 | 1 | 101.74 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 64 |
| 821 | Column | 2046BF23LPL29 | BF2-29 | PL35*400 | 1 | 66.60 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 822 | Column | 2046BF23LPL30 | BF2-30 | PL35*400 | 1 | 66.60 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 59 |
| 823 | Column | 2046BF23LPL31 | BF2-31 | PL30*655 | 1 | 185.10 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 64 |
| 824 | Column | 2046BF23LPL32 | BF2-32 | PL30*655 | 1 | 185.10 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 825 | Column | 2046BF23LPL33 | BF2-33 | PL30*1060 | 1 | 289.57 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 826 | Column | 2046BF23LPL34 | BF2-34 | PL30*1060 | 1 | 289.57 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 827 | Column | 2046CF23C35 | CF2-35 | HI1500-50-85*855 | 1 | 17991.06 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 02/04/2015 | 62 |
| 828 | Column | 2046CF23C36 | CF2-36 | HI675-45-50*675 | 1 | 8486.41 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/03/2015 | 54 |
| 829 | Column | 2046CF23LPL19 | CF2-19 | PL50*350 | 1 | 170.34 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 830 | Column | 2046CF23LPL20 | CF2-20 | PL50*350 | 1 | 170.34 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 831 | Column | 2046CF23LPL21 | CF2-21 | PL50*350 | 1 | 170.34 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 832 | Column | 2046CF23LPL22 | CF2-22 | PL50*350 | 1 | 170.34 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/03/2015 | 58 |
| 833 | Column | 2046CF23LPL23 | CF2-23 | PL45*845 | 1 | 370.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 834 | Column | 2046CF23LPL24 | CF2-24 | PL45*845 | 1 | 370.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 835 | Column | 2046CF23LPL25 | CF2-25 | PL40*270 | 1 | 101.74 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 836 | Column | 2046CF23LPL26 | CF2-26 | PL40*270 | 1 | 101.74 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 837 | Column | 2046CF23LPL27 | CF2-27 | PL40*270 | 1 | 101.74 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 838 | Column | 2046CF23LPL28 | CF2-28 | PL40*270 | 1 | 101.74 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 839 | Column | 2046CF23LPL29 | CF2-29 | PL35*400 | 1 | 66.60 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 840 | Column | 2046CF23LPL30 | CF2-30 | PL35*400 | 1 | 66.60 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 841 | Column | 2046CF23LPL31 | CF2-31 | PL30*655 | 1 | 185.10 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 842 | Column | 2046CF23LPL32 | CF2-32 | PL30*655 | 1 | 185.10 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 25/03/2015 | 56 |
| 843 | Column | 2046CF23LPL33 | CF2-33 | PL30*1060 | 1 | 289.57 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 844 | Column | 2046CF23LPL34 | CF2-34 | PL30*1060 | 1 | 289.57 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 845 | Column | 2046FF23C35 | FF2-35 | HI675-45-50*675 | 1 | 8312.96 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 08/04/2015 | 63 |
| 846 | Column | 2046FF23C36 | FF2-36 | HI1500-45-70*825 | 1 | 14662.01 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 65 |
| 847 | Column | 2046FF23LPL19 | FF2-19 | PL50*320 | 1 | 155.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 848 | Column | 2046FF23LPL20 | FF2-20 | PL50*320 | 1 | 155.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 849 | Column | 2046FF23LPL21 | FF2-21 | PL50*320 | 1 | 155.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 850 | Column | 2046FF23LPL22 | FF2-22 | PL50*320 | 1 | 155.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 851 | Column | 2046FF23LPL23 | FF2-23 | PL40*270 | 1 | 101.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 852 | Column | 2046FF23LPL24 | FF2-24 | PL40*270 | 1 | 101.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 853 | Column | 2046FF23LPL25 | FF2-25 | PL40*270 | 1 | 101.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 854 | Column | 2046FF23LPL26 | FF2-26 | PL40*270 | 1 | 101.74 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 855 | Column | 2046FF23LPL27 | FF2-27 | PL35*805 | 1 | 274.26 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 856 | Column | 2046FF23LPL28 | FF2-28 | PL35*805 | 1 | 274.26 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 857 | Column | 2046FF23LPL29 | FF2-29 | PL35*400 | 1 | 66.60 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 858 | Column | 2046FF23LPL30 | FF2-30 | PL35*400 | 1 | 66.60 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 859 | Column | 2046FF23LPL31 | FF2-31 | PL30*655 | 1 | 185.10 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 860 | Column | 2046FF23LPL32 | FF2-32 | PL30*655 | 1 | 185.10 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 861 | Column | 2046FF23LPL33 | FF2-33 | PL25*1060 | 1 | 241.31 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 862 | Column | 2046FF23LPL34 | FF2-34 | PL25*1060 | 1 | 241.31 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 863 | Column | 2046GF23C35 | GF2-35 | HI675-45-50*675 | 1 | 8312.96 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 08/04/2015 | 63 |
| 864 | Column | 2046GF23C36 | GF2-36 | HI1500-45-70*825 | 1 | 14662.01 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 10/04/2015 | 66 |
| 865 | Column | 2046GF23LPL19 | GF2-19 | PL50*320 | 1 | 155.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 866 | Column | 2046GF23LPL20 | GF2-20 | PL50*320 | 1 | 155.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 867 | Column | 2046GF23LPL21 | GF2-21 | PL50*320 | 1 | 155.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 868 | Column | 2046GF23LPL22 | GF2-22 | PL50*320 | 1 | 155.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 869 | Column | 2046GF23LPL23 | GF2-23 | PL40*270 | 1 | 101.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 870 | Column | 2046GF23LPL24 | GF2-24 | PL40*270 | 1 | 101.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 871 | Column | 2046GF23LPL25 | GF2-25 | PL40*270 | 1 | 101.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 872 | Column | 2046GF23LPL26 | GF2-26 | PL40*270 | 1 | 101.74 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 873 | Column | 2046GF23LPL27 | GF2-27 | PL35*805 | 1 | 274.26 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 874 | Column | 2046GF23LPL28 | GF2-28 | PL35*805 | 1 | 274.26 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 875 | Column | 2046GF23LPL29 | GF2-29 | PL35*400 | 1 | 66.60 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 17/04/2015 | 70 |
| 876 | Column | 2046GF23LPL30 | GF2-30 | PL35*400 | 1 | 66.60 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 20/04/2015 | 73 |
| 877 | Column | 2046GF23LPL31 | GF2-31 | PL30*655 | 1 | 185.10 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 878 | Column | 2046GF23LPL32 | GF2-32 | PL30*655 | 1 | 185.10 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 879 | Column | 2046GF23LPL33 | GF2-33 | PL25*1060 | 1 | 241.31 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 880 | Column | 2046GF23LPL34 | GF2-34 | PL25*1060 | 1 | 241.31 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 881 | Column | 2046HF23C35 | HF2-35 | HI675-45-50*675 | 1 | 8340.98 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 09/04/2015 | 65 |
| 882 | Column | 2046HF23C36 | HF2-36 | HI1500-45-70*825 | 1 | 14671.55 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 16/04/2015 | 68 |
| 883 | Column | 2046HF23LPL19 | HF2-19 | PL50*320 | 1 | 155.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 884 | Column | 2046HF23LPL20 | HF2-20 | PL50*320 | 1 | 155.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 885 | Column | 2046HF23LPL21 | HF2-21 | PL50*320 | 1 | 155.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 886 | Column | 2046HF23LPL22 | HF2-22 | PL50*320 | 1 | 155.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 887 | Column | 2046HF23LPL23 | HF2-23 | PL40*270 | 1 | 101.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 888 | Column | 2046HF23LPL24 | HF2-24 | PL40*270 | 1 | 101.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 24/04/2015 | 74 |
| 889 | Column | 2046HF23LPL25 | HF2-25 | PL40*270 | 1 | 101.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 890 | Column | 2046HF23LPL26 | HF2-26 | PL40*270 | 1 | 101.74 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 891 | Column | 2046HF23LPL27 | HF2-27 | PL35*805 | 1 | 274.26 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 892 | Column | 2046HF23LPL28 | HF2-28 | PL35*805 | 1 | 274.26 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 893 | Column | 2046HF23LPL29 | HF2-29 | PL35*400 | 1 | 66.60 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 894 | Column | 2046HF23LPL30 | HF2-30 | PL35*400 | 1 | 66.60 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 895 | Column | 2046HF23LPL31 | HF2-31 | PL30*655 | 1 | 185.10 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 896 | Column | 2046HF23LPL32 | HF2-32 | PL30*655 | 1 | 185.10 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 897 | Column | 2046HF23LPL33 | HF2-33 | PL25*1060 | 1 | 241.31 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 898 | Column | 2046HF23LPL34 | HF2-34 | PL25*1060 | 1 | 241.31 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 899 | Column | 2046IF23C35 | IF2-35 | HI675-45-50*675 | 1 | 8333.53 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 16/04/2015 | 68 |
| 900 | Column | 2046IF23C36 | IF2-36 | HI1500-45-70*825 | 1 | 14666.78 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 16/04/2015 | 69 |
| 901 | Column | 2046IF23LPL19 | IF2-19 | PL50*320 | 1 | 155.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 902 | Column | 2046IF23LPL20 | IF2-20 | PL50*320 | 1 | 155.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 903 | Column | 2046IF23LPL21 | IF2-21 | PL50*320 | 1 | 155.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 904 | Column | 2046IF23LPL22 | IF2-22 | PL50*320 | 1 | 155.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 905 | Column | 2046IF23LPL23 | IF2-23 | PL40*270 | 1 | 101.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 906 | Column | 2046IF23LPL24 | IF2-24 | PL40*270 | 1 | 101.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 907 | Column | 2046IF23LPL25 | IF2-25 | PL40*270 | 1 | 101.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 908 | Column | 2046IF23LPL26 | IF2-26 | PL40*270 | 1 | 101.74 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 909 | Column | 2046IF23LPL27 | IF2-27 | PL35*805 | 1 | 274.26 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 910 | Column | 2046IF23LPL29 | IF2-29 | PL35*400 | 1 | 66.60 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 911 | Column | 2046IF23LPL30 | IF2-30 | PL35*400 | 1 | 66.60 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 912 | Column | 2046IF23LPL31 | IF2-31 | PL30*655 | 1 | 185.10 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 913 | Column | 2046IF23LPL32 | IF2-32 | PL30*655 | 1 | 185.10 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 914 | Column | 2046IF23LPL34 | IF2-34 | PL25*1060 | 1 | 241.31 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 915 | Column | 2046IF23V28 | IF2-28 | PL35*805 | 1 | 287.05 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 06/05/2015 | 79 |
| 916 | Column | 2046IF23V33 | IF2-33 | PL25*1060 | 1 | 259.80 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 04/05/2015 | 76 |
| 917 | Column | 2046JF23C35 | JF2-35 | HI675-45-50*675 | 1 | 8625.17 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 18/04/2015 | 72 |
| 918 | Column | 2046JF23C36 | JF2-36 | HI1500-45-70*825 | 1 | 14669.13 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 18/04/2015 | 72 |
| 919 | Column | 2046JF23LPL19 | JF2-19 | PL50*320 | 1 | 155.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 920 | Column | 2046JF23LPL20 | JF2-20 | PL50*320 | 1 | 155.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 921 | Column | 2046JF23LPL21 | JF2-21 | PL50*320 | 1 | 155.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 922 | Column | 2046JF23LPL22 | JF2-22 | PL50*320 | 1 | 155.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 923 | Column | 2046JF23LPL23 | JF2-23 | PL40*270 | 1 | 101.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 27/04/2015 | 74 |
| 924 | Column | 2046JF23LPL24 | JF2-24 | PL40*270 | 1 | 101.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 925 | Column | 2046JF23LPL25 | JF2-25 | PL40*270 | 1 | 101.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 926 | Column | 2046JF23LPL26 | JF2-26 | PL40*270 | 1 | 101.74 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 927 | Column | 2046JF23LPL27 | JF2-27 | PL35*805 | 1 | 274.26 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 928 | Column | 2046JF23LPL28 | JF2-28 | PL35*805 | 1 | 274.26 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 929 | Column | 2046JF23LPL29 | JF2-29 | PL35*400 | 1 | 66.60 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 930 | Column | 2046JF23LPL30 | JF2-30 | PL35*400 | 1 | 66.60 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 931 | Column | 2046JF23LPL31 | JF2-31 | PL30*655 | 1 | 185.10 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 932 | Column | 2046JF23LPL32 | JF2-32 | PL30*655 | 1 | 185.10 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 933 | Column | 2046JF23LPL33 | JF2-33 | PL25*1060 | 1 | 241.31 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 934 | Column | 2046JF23LPL34 | JF2-34 | PL25*1060 | 1 | 241.31 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 18/02/2015 | 30/04/2015 | 77 |
| 935 | Column | 2046CF33C35 | CF3-35 | HI1500-50-85*855 | 1 | 22520.17 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 08/06/2015 | 103 |
| 936 | Column | 2046CF33C36 | CF3-36 | HI675-45-50*675 | 1 | 10348.34 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 11/06/2015 | 106 |
| 937 | Column | 2046CF33LPL19 | CF3-19 | PL50*350 | 1 | 126.38 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 938 | Column | 2046CF33LPL20 | CF3-20 | PL50*350 | 1 | 126.38 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 939 | Column | 2046CF33LPL21 | CF3-21 | PL50*350 | 1 | 126.38 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 940 | Column | 2046CF33LPL22 | CF3-22 | PL50*350 | 1 | 126.38 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 941 | Column | 2046CF33LPL23 | CF3-23 | PL45*845 | 1 | 274.62 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 942 | Column | 2046CF33LPL24 | CF3-24 | PL45*845 | 1 | 274.62 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 943 | Column | 2046CF33LPL25 | CF3-25 | PL40*270 | 1 | 62.74 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 944 | Column | 2046CF33LPL26 | CF3-26 | PL40*270 | 1 | 62.74 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 945 | Column | 2046CF33LPL27 | CF3-27 | PL40*270 | 1 | 62.74 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 946 | Column | 2046CF33LPL28 | CF3-28 | PL40*270 | 1 | 62.74 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 947 | Column | 2046CF33LPL29 | CF3-29 | PL35*400 | 1 | 66.60 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 948 | Column | 2046CF33LPL30 | CF3-30 | PL35*400 | 1 | 66.60 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 949 | Column | 2046CF33LPL31 | CF3-31 | PL30*655 | 1 | 114.15 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 950 | Column | 2046CF33LPL32 | CF3-32 | PL30*655 | 1 | 114.15 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 111 |
| 951 | Column | 2046CF33LPL33 | CF3-33 | PL30*740 | 1 | 203.90 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 952 | Column | 2046CF33LPL34 | CF3-34 | PL30*740 | 1 | 203.90 | C | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 95 |
| 953 | Column | 2046DF33C35 | DF3-35 | HI675-45-50*675 | 1 | 9754.32 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 19/06/2015 | 112 |
| 954 | Column | 2046DF33C36 | DF3-36 | HI1500-45-70*825 | 1 | 18376.53 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 09/05/2015 | 82 |
| 955 | Column | 2046DF33LPL19 | DF3-19 | PL50*320 | 1 | 115.55 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 956 | Column | 2046DF33LPL20 | DF3-20 | PL50*320 | 1 | 115.55 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 957 | Column | 2046DF33LPL21 | DF3-21 | PL50*320 | 1 | 115.55 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 958 | Column | 2046DF33LPL22 | DF3-22 | PL50*320 | 1 | 115.55 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 959 | Column | 2046DF33LPL23 | DF3-23 | PL40*270 | 1 | 62.74 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 960 | Column | 2046DF33LPL24 | DF3-24 | PL40*270 | 1 | 62.74 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 961 | Column | 2046DF33LPL25 | DF3-25 | PL40*270 | 1 | 62.74 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 962 | Column | 2046DF33LPL26 | DF3-26 | PL40*270 | 1 | 62.74 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 963 | Column | 2046DF33LPL27 | DF3-27 | PL35*805 | 1 | 203.48 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 964 | Column | 2046DF33LPL28 | DF3-28 | PL35*805 | 1 | 203.48 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 965 | Column | 2046DF33LPL29 | DF3-29 | PL35*400 | 1 | 66.60 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 966 | Column | 2046DF33LPL30 | DF3-30 | PL35*400 | 1 | 66.60 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 967 | Column | 2046DF33LPL31 | DF3-31 | PL30*655 | 1 | 114.15 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 968 | Column | 2046DF33LPL32 | DF3-32 | PL30*655 | 1 | 114.15 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 25/06/2015 | 118 |
| 969 | Column | 2046DF33LPL33 | DF3-33 | PL25*740 | 1 | 169.91 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 970 | Column | 2046DF33LPL34 | DF3-34 | PL25*740 | 1 | 169.91 | D | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 13/05/2015 | 84 |
| 971 | Column | 2046EF33C35 | EF3-35 | HI675-45-50*675 | 1 | 9754.32 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 28/05/2015 | 98 |
| 972 | Column | 2046EF33C36 | EF3-36 | HI1500-45-70*825 | 1 | 18376.53 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 08/05/2015 | 80 |
| 973 | Column | 2046EF33LPL19 | EF3-19 | PL50*320 | 1 | 115.55 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 974 | Column | 2046EF33LPL20 | EF3-20 | PL50*320 | 1 | 115.55 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 975 | Column | 2046EF33LPL21 | EF3-21 | PL50*320 | 1 | 115.55 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 976 | Column | 2046EF33LPL22 | EF3-22 | PL50*320 | 1 | 115.55 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 977 | Column | 2046EF33LPL23 | EF3-23 | PL40*270 | 1 | 62.74 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 978 | Column | 2046EF33LPL24 | EF3-24 | PL40*270 | 1 | 62.74 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 979 | Column | 2046EF33LPL25 | EF3-25 | PL40*270 | 1 | 62.74 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 980 | Column | 2046EF33LPL26 | EF3-26 | PL40*270 | 1 | 62.74 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 981 | Column | 2046EF33LPL27 | EF3-27 | PL35*805 | 1 | 203.48 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 982 | Column | 2046EF33LPL28 | EF3-28 | PL35*805 | 1 | 203.48 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 983 | Column | 2046EF33LPL29 | EF3-29 | PL35*400 | 1 | 66.60 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 984 | Column | 2046EF33LPL30 | EF3-30 | PL35*400 | 1 | 66.60 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 985 | Column | 2046EF33LPL31 | EF3-31 | PL30*655 | 1 | 114.15 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 986 | Column | 2046EF33LPL32 | EF3-32 | PL30*655 | 1 | 114.15 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 987 | Column | 2046EF33LPL33 | EF3-33 | PL25*740 | 1 | 169.91 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 988 | Column | 2046EF33LPL34 | EF3-34 | PL25*740 | 1 | 169.91 | E | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 989 | Column | 2046FF33C35 | FF3-35 | HI675-45-50*675 | 1 | 9754.32 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 18/06/2015 | 111 |
| 990 | Column | 2046FF33C36 | FF3-36 | HI1500-45-70*825 | 1 | 18376.53 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 08/05/2015 | 81 |
| 991 | Column | 2046FF33LPL19 | FF3-19 | PL50*320 | 1 | 115.55 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 992 | Column | 2046FF33LPL20 | FF3-20 | PL50*320 | 1 | 115.55 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 993 | Column | 2046FF33LPL21 | FF3-21 | PL50*320 | 1 | 115.55 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 994 | Column | 2046FF33LPL22 | FF3-22 | PL50*320 | 1 | 115.55 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 995 | Column | 2046FF33LPL23 | FF3-23 | PL40*270 | 1 | 62.74 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 996 | Column | 2046FF33LPL24 | FF3-24 | PL40*270 | 1 | 62.74 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 997 | Column | 2046FF33LPL25 | FF3-25 | PL40*270 | 1 | 62.74 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 998 | Column | 2046FF33LPL26 | FF3-26 | PL40*270 | 1 | 62.74 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 999 | Column | 2046FF33LPL27 | FF3-27 | PL35*805 | 1 | 203.48 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 1000 | Column | 2046FF33LPL28 | FF3-28 | PL35*805 | 1 | 203.48 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 1001 | Column | 2046FF33LPL29 | FF3-29 | PL35*400 | 1 | 66.60 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1002 | Column | 2046FF33LPL30 | FF3-30 | PL35*400 | 1 | 66.60 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1003 | Column | 2046FF33LPL31 | FF3-31 | PL30*655 | 1 | 114.15 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1004 | Column | 2046FF33LPL32 | FF3-32 | PL30*655 | 1 | 114.15 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1005 | Column | 2046FF33LPL33 | FF3-33 | PL25*740 | 1 | 169.91 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 1006 | Column | 2046FF33LPL34 | FF3-34 | PL25*740 | 1 | 169.91 | F | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 20/05/2015 | 87 |
| 1007 | Column | 2046GF33C35 | GF3-35 | HI675-45-50*675 | 1 | 9754.32 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 90 |
| 1008 | Column | 2046GF33C36 | GF3-36 | HI1500-45-70*825 | 1 | 18376.53 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 23/05/2015 | 92 |
| 1009 | Column | 2046GF33LPL19 | GF3-19 | PL50*320 | 1 | 115.55 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1010 | Column | 2046GF33LPL20 | GF3-20 | PL50*320 | 1 | 115.55 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1011 | Column | 2046GF33LPL21 | GF3-21 | PL50*320 | 1 | 115.55 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1012 | Column | 2046GF33LPL22 | GF3-22 | PL50*320 | 1 | 115.55 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1013 | Column | 2046GF33LPL23 | GF3-23 | PL40*270 | 1 | 62.74 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1014 | Column | 2046GF33LPL24 | GF3-24 | PL40*270 | 1 | 62.74 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1015 | Column | 2046GF33LPL25 | GF3-25 | PL40*270 | 1 | 62.74 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1016 | Column | 2046GF33LPL26 | GF3-26 | PL40*270 | 1 | 62.74 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1017 | Column | 2046GF33LPL27 | GF3-27 | PL35*805 | 1 | 203.48 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1018 | Column | 2046GF33LPL28 | GF3-28 | PL35*805 | 1 | 203.48 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1019 | Column | 2046GF33LPL29 | GF3-29 | PL35*400 | 1 | 66.60 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1020 | Column | 2046GF33LPL30 | GF3-30 | PL35*400 | 1 | 66.60 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1021 | Column | 2046GF33LPL31 | GF3-31 | PL30*655 | 1 | 114.15 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1022 | Column | 2046GF33LPL32 | GF3-32 | PL30*655 | 1 | 114.15 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 89 |
| 1023 | Column | 2046GF33LPL33 | GF3-33 | PL25*740 | 1 | 169.91 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1024 | Column | 2046GF33LPL34 | GF3-34 | PL25*740 | 1 | 169.91 | G | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 22/05/2015 | 91 |
| 1025 | Column | 2046HF33C35 | HF3-35 | HI675-45-50*675 | 1 | 9779.70 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 113 |
| 1026 | Column | 2046HF33C36 | HF3-36 | HI1500-45-70*825 | 1 | 18378.80 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 28/05/2015 | 94 |
| 1027 | Column | 2046HF33LPL19 | HF3-19 | PL50*320 | 1 | 115.55 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1028 | Column | 2046HF33LPL20 | HF3-20 | PL50*320 | 1 | 115.55 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1029 | Column | 2046HF33LPL21 | HF3-21 | PL50*320 | 1 | 115.55 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1030 | Column | 2046HF33LPL22 | HF3-22 | PL50*320 | 1 | 115.55 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1031 | Column | 2046HF33LPL23 | HF3-23 | PL40*270 | 1 | 62.74 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1032 | Column | 2046HF33LPL24 | HF3-24 | PL40*270 | 1 | 62.74 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1033 | Column | 2046HF33LPL25 | HF3-25 | PL40*270 | 1 | 62.74 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1034 | Column | 2046HF33LPL26 | HF3-26 | PL40*270 | 1 | 62.74 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1035 | Column | 2046HF33LPL27 | HF3-27 | PL35*805 | 1 | 203.48 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1036 | Column | 2046HF33LPL28 | HF3-28 | PL35*805 | 1 | 203.48 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1037 | Column | 2046HF33LPL29 | HF3-29 | PL35*400 | 1 | 66.60 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1038 | Column | 2046HF33LPL30 | HF3-30 | PL35*400 | 1 | 66.60 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1039 | Column | 2046HF33LPL31 | HF3-31 | PL30*655 | 1 | 114.15 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1040 | Column | 2046HF33LPL32 | HF3-32 | PL30*655 | 1 | 114.15 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 24/06/2015 | 117 |
| 1041 | Column | 2046HF33LPL33 | HF3-33 | PL25*740 | 1 | 169.91 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1042 | Column | 2046HF33LPL34 | HF3-34 | PL25*740 | 1 | 169.91 | H | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1043 | Column | 2046IF33C35 | IF3-35 | HI675-45-50*675 | 1 | 9821.16 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 15/06/2015 | 109 |
| 1044 | Column | 2046IF33C36 | IF3-36 | HI1500-45-70*825 | 1 | 18323.01 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 107 |
| 1045 | Column | 2046IF33LPL19 | IF3-19 | PL50*320 | 1 | 115.55 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1046 | Column | 2046IF33LPL20 | IF3-20 | PL50*320 | 1 | 115.55 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1047 | Column | 2046IF33LPL21 | IF3-21 | PL50*320 | 1 | 115.55 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1048 | Column | 2046IF33LPL22 | IF3-22 | PL50*320 | 1 | 115.55 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1049 | Column | 2046IF33LPL23 | IF3-23 | PL40*270 | 1 | 62.74 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1050 | Column | 2046IF33LPL24 | IF3-24 | PL40*270 | 1 | 62.74 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1051 | Column | 2046IF33LPL25 | IF3-25 | PL40*270 | 1 | 62.74 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1052 | Column | 2046IF33LPL26 | IF3-26 | PL40*270 | 1 | 62.74 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1053 | Column | 2046IF33LPL27 | IF3-27 | PL35*805 | 1 | 203.48 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1054 | Column | 2046IF33LPL28 | IF3-28 | PL35*805 | 1 | 203.48 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1055 | Column | 2046IF33LPL29 | IF3-29 | PL35*400 | 1 | 66.60 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1056 | Column | 2046IF33LPL30 | IF3-30 | PL35*400 | 1 | 66.60 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1057 | Column | 2046IF33LPL31 | IF3-31 | PL30*655 | 1 | 114.15 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1058 | Column | 2046IF33LPL32 | IF3-32 | PL30*655 | 1 | 114.15 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 111 |
| 1059 | Column | 2046IF33LPL33 | IF3-33 | PL25*740 | 1 | 169.91 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 04/06/2015 | 101 |
| 1060 | Column | 2046IF33LPL34 | IF3-34 | PL25*740 | 1 | 169.91 | I | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 11/06/2015 | 104 |
| 1061 | Column | 2046JF33C35 | JF3-35 | HI675-45-50*675 | 1 | 10338.66 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 19/06/2015 | 114 |
| 1062 | Column | 2046JF33C36 | JF3-36 | HI1500-45-70*825 | 1 | 18280.91 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1063 | Column | 2046JF33LPL185 | JF3-185 | PL25*740 | 1 | 169.91 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1064 | Column | 2046JF33LPL186 | JF3-186 | PL25*740 | 1 | 169.91 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1065 | Column | 2046JF33LPL187 | JF3-187 | PL30*655 | 1 | 114.15 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1066 | Column | 2046JF33LPL188 | JF3-188 | PL30*655 | 1 | 114.15 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1067 | Column | 2046JF33LPL189 | JF3-189 | PL35*400 | 1 | 66.60 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1068 | Column | 2046JF33LPL190 | JF3-190 | PL35*400 | 1 | 66.60 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1069 | Column | 2046JF33LPL191 | JF3-191 | PL35*805 | 1 | 203.48 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1070 | Column | 2046JF33LPL192 | JF3-192 | PL35*805 | 1 | 203.48 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1071 | Column | 2046JF33LPL193 | JF3-193 | PL40*270 | 1 | 62.74 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1072 | Column | 2046JF33LPL194 | JF3-194 | PL40*270 | 1 | 62.74 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1073 | Column | 2046JF33LPL195 | JF3-195 | PL40*270 | 1 | 62.74 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1074 | Column | 2046JF33LPL196 | JF3-196 | PL40*270 | 1 | 62.74 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1075 | Column | 2046JF33LPL197 | JF3-197 | PL50*320 | 1 | 115.55 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1076 | Column | 2046JF33LPL198 | JF3-198 | PL50*320 | 1 | 115.55 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1077 | Column | 2046JF33LPL199 | JF3-199 | PL50*320 | 1 | 115.55 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1078 | Column | 2046JF33LPL200 | JF3-200 | PL50*320 | 1 | 115.55 | J | 3 | 13.1-13.2 | With Intumescent | Portugal | 03/03/2015 | 25/06/2015 | 118 |
| 1079 | Column | 2046BF43C35 | BF4-35 | HI1500-50-85*855 | 1 | 23552.04 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 15/05/2015 | 85 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1080 | Column | 2046BF43C36 | BF4-36 | HI675-45-50*675 | 1 | 8010.07 | B | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 30/05/2015 | 377 |
| 1081 | Column | 2046BF43LPL19 | BF4-19 | PL50*350 | 1 | 170.34 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1082 | Column | 2046BF43LPL20 | BF4-20 | PL50*350 | 1 | 170.34 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1083 | Column | 2046BF43LPL21 | BF4-21 | PL50*350 | 1 | 170.34 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1084 | Column | 2046BF43LPL22 | BF4-22 | PL50*350 | 1 | 170.34 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1085 | Column | 2046BF43LPL23 | BF4-23 | PL45*845 | 1 | 370.14 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1086 | Column | 2046BF43LPL24 | BF4-24 | PL45*845 | 1 | 370.14 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1087 | Column | 2046BF43LPL25 | BF4-25 | PL40*270 | 1 | 101.74 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1088 | Column | 2046BF43LPL26 | BF4-26 | PL40*270 | 1 | 101.74 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1089 | Column | 2046BF43LPL27 | BF4-27 | PL40*270 | 1 | 101.74 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1090 | Column | 2046BF43LPL28 | BF4-28 | PL40*270 | 1 | 101.74 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1091 | Column | 2046BF43LPL29 | BF4-29 | PL35*400 | 1 | 66.60 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1092 | Column | 2046BF43LPL30 | BF4-30 | PL35*400 | 1 | 66.60 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1093 | Column | 2046BF43LPL31 | BF4-31 | PL30*655 | 1 | 185.10 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1094 | Column | 2046BF43LPL32 | BF4-32 | PL30*655 | 1 | 185.10 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1095 | Column | 2046BF43LPL33 | BF4-33 | PL30*1060 | 1 | 289.57 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1096 | Column | 2046BF43LPL34 | BF4-34 | PL30*1060 | 1 | 289.57 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 01/06/2015 | 98 |
| 1097 | Column | 2046CF43C35 | CF4-35 | HI1500-50-85*855 | 1 | 23129.39 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 15/05/2015 | 86 |
| 1098 | Column | 2046CF43C36 | CF4-36 | HI675-45-50*675 | 1 | 7931.11 | C | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 29/05/2015 | 375 |
| 1099 | Column | 2046CF43LPL19 | CF4-19 | PL50*350 | 1 | 170.34 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1100 | Column | 2046CF43LPL20 | CF4-20 | PL50*350 | 1 | 170.34 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1101 | Column | 2046CF43LPL21 | CF4-21 | PL50*350 | 1 | 170.34 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1102 | Column | 2046CF43LPL22 | CF4-22 | PL50*350 | 1 | 170.34 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1103 | Column | 2046CF43LPL23 | CF4-23 | PL45*845 | 1 | 370.14 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1104 | Column | 2046CF43LPL24 | CF4-24 | PL45*845 | 1 | 370.14 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1105 | Column | 2046CF43LPL25 | CF4-25 | PL40*270 | 1 | 101.74 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1106 | Column | 2046CF43LPL26 | CF4-26 | PL40*270 | 1 | 101.74 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1107 | Column | 2046CF43LPL27 | CF4-27 | PL40*270 | 1 | 101.74 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1108 | Column | 2046CF43LPL28 | CF4-28 | PL40*270 | 1 | 101.74 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1109 | Column | 2046CF43LPL29 | CF4-29 | PL35*400 | 1 | 66.60 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1110 | Column | 2046CF43LPL30 | CF4-30 | PL35*400 | 1 | 66.60 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1111 | Column | 2046CF43LPL31 | CF4-31 | PL30*655 | 1 | 185.10 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1112 | Column | 2046CF43LPL32 | CF4-32 | PL30*655 | 1 | 185.10 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 18/06/2015 | 111 |
| 1113 | Column | 2046CF43LPL33 | CF4-33 | PL30*1060 | 1 | 289.57 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 28/05/2015 | 94 |
| 1114 | Column | 2046CF43LPL34 | CF4-34 | PL30*1060 | 1 | 289.57 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 23/05/2015 | 92 |
| 1115 | Column | 2046DF43C35 | DF4-35 | HI675-45-50*675 | 1 | 7763.07 | D | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 27/05/2015 | 374 |
| 1116 | Column | 2046DF43C36 | DF4-36 | HI1500-45-70*825 | 1 | 18545.72 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 21/05/2015 | 88 |
| 1117 | Column | 2046DF43LPL19 | DF4-19 | PL50*320 | 1 | 155.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1118 | Column | 2046DF43LPL20 | DF4-20 | PL50*320 | 1 | 155.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1119 | Column | 2046DF43LPL21 | DF4-21 | PL50*320 | 1 | 155.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1120 | Column | 2046DF43LPL22 | DF4-22 | PL50*320 | 1 | 155.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1121 | Column | 2046DF43LPL23 | DF4-23 | PL40*270 | 1 | 101.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1122 | Column | 2046DF43LPL24 | DF4-24 | PL40*270 | 1 | 101.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1123 | Column | 2046DF43LPL25 | DF4-25 | PL40*270 | 1 | 101.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1124 | Column | 2046DF43LPL26 | DF4-26 | PL40*270 | 1 | 101.74 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1125 | Column | 2046DF43LPL27 | DF4-27 | PL35*805 | 1 | 274.26 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1126 | Column | 2046DF43LPL28 | DF4-28 | PL35*805 | 1 | 274.26 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1127 | Column | 2046DF43LPL29 | DF4-29 | PL35*400 | 1 | 66.60 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1128 | Column | 2046DF43LPL30 | DF4-30 | PL35*400 | 1 | 66.60 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1129 | Column | 2046DF43LPL31 | DF4-31 | PL30*655 | 1 | 185.10 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1130 | Column | 2046DF43LPL32 | DF4-32 | PL30*655 | 1 | 185.10 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 19/06/2015 | 112 |
| 1131 | Column | 2046DF43LPL33 | DF4-33 | PL25*1060 | 1 | 241.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1132 | Column | 2046DF43LPL34 | DF4-34 | PL25*1060 | 1 | 241.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1133 | Column | 2046EF43C35 | EF4-35 | HI675-45-50*675 | 1 | 7763.06 | E | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 27/05/2015 | 374 |
| 1134 | Column | 2046EF43C36 | EF4-36 | HI1500-45-70*825 | 1 | 18535.66 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 22/05/2015 | 89 |
| 1135 | Column | 2046EF43LPL19 | EF4-19 | PL50*320 | 1 | 155.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1136 | Column | 2046EF43LPL20 | EF4-20 | PL50*320 | 1 | 155.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1137 | Column | 2046EF43LPL21 | EF4-21 | PL50*320 | 1 | 155.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1138 | Column | 2046EF43LPL22 | EF4-22 | PL50*320 | 1 | 155.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1139 | Column | 2046EF43LPL23 | EF4-23 | PL40*270 | 1 | 101.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1140 | Column | 2046EF43LPL24 | EF4-24 | PL40*270 | 1 | 101.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1141 | Column | 2046EF43LPL25 | EF4-25 | PL40*270 | 1 | 101.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1142 | Column | 2046EF43LPL26 | EF4-26 | PL40*270 | 1 | 101.74 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1143 | Column | 2046EF43LPL27 | EF4-27 | PL35*805 | 1 | 274.26 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 30/06/2015 | 124 |
| 1144 | Column | 2046EF43LPL28 | EF4-28 | PL35*805 | 1 | 274.26 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 30/06/2015 | 124 |
| 1145 | Column | 2046EF43LPL29 | EF4-29 | PL35*400 | 1 | 66.60 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1146 | Column | 2046EF43LPL30 | EF4-30 | PL35*400 | 1 | 66.60 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1147 | Column | 2046EF43LPL31 | EF4-31 | PL30*655 | 1 | 185.10 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1148 | Column | 2046EF43LPL32 | EF4-32 | PL30*655 | 1 | 185.10 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 11/06/2015 | 107 |
| 1149 | Column | 2046EF43LPL33 | EF4-33 | PL25*1060 | 1 | 241.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 30/06/2015 | 124 |
| 1150 | Column | 2046EF43LPL34 | EF4-34 | PL25*1060 | 1 | 241.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 21/04/2015 | 24/06/2015 | 117 |
| 1151 | Column | 2046FF43C35 | FF4-35 | HI675-45-50*675 | 1 | 7763.06 | F | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 29/05/2015 | 375 |
| 1152 | Column | 2046FF43C36 | FF4-36 | HI1500-45-70*825 | 1 | 18535.75 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 28/05/2015 | 95 |
| 1153 | Column | 2046FF43LPL19 | FF4-19 | PL50*320 | 1 | 155.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 18/06/2015 | 111 |
| 1154 | Column | 2046FF43LPL20 | FF4-20 | PL50*320 | 1 | 155.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 18/06/2015 | 111 |
| 1155 | Column | 2046FF43LPL21 | FF4-21 | PL50*320 | 1 | 155.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 18/06/2015 | 111 |
| 1156 | Column | 2046FF43LPL22 | FF4-22 | PL50*320 | 1 | 155.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 18/06/2015 | 111 |
| 1157 | Column | 2046FF43LPL23 | FF4-23 | PL40*270 | 1 | 101.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1158 | Column | 2046FF43LPL24 | FF4-24 | PL40*270 | 1 | 101.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1159 | Column | 2046FF43LPL25 | FF4-25 | PL40*270 | 1 | 101.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1160 | Column | 2046FF43LPL26 | FF4-26 | PL40*270 | 1 | 101.74 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1161 | Column | 2046FF43LPL27 | FF4-27 | PL35*805 | 1 | 274.26 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1162 | Column | 2046FF43LPL28 | FF4-28 | PL35*805 | 1 | 274.26 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |

## Table A3-01: Schedule of Column Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1163 | Column | 2046FF43LPL29 | FF4-29 | PL35*400 | 1 | 66.60 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1164 | Column | 2046FF43LPL30 | FF4-30 | PL35*400 | 1 | 66.60 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1165 | Column | 2046FF43LPL31 | FF4-31 | PL30*655 | 1 | 185.10 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1166 | Column | 2046FF43LPL32 | FF4-32 | PL30*655 | 1 | 185.10 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1167 | Column | 2046FF43LPL33 | FF4-33 | PL25*1060 | 1 | 241.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 18/06/2015 | 111 |
| 1168 | Column | 2046FF43LPL34 | FF4-34 | PL25*1060 | 1 | 241.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 18/06/2015 | 111 |
| 1169 | Column | 2046GF43C35 | GF4-35 | HI675-45-50*675 | 1 | 7763.06 | G | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 20/05/2015 | 370 |
| 1170 | Column | 2046GF43C36 | GF4-36 | HI1500-45-70*825 | 1 | 18545.72 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 04/06/2015 | 100 |
| 1171 | Column | 2046GF43LPL19 | GF4-19 | PL50*320 | 1 | 155.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1172 | Column | 2046GF43LPL20 | GF4-20 | PL50*320 | 1 | 155.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1173 | Column | 2046GF43LPL21 | GF4-21 | PL50*320 | 1 | 155.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1174 | Column | 2046GF43LPL22 | GF4-22 | PL50*320 | 1 | 155.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1175 | Column | 2046GF43LPL23 | GF4-23 | PL40*270 | 1 | 101.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1176 | Column | 2046GF43LPL24 | GF4-24 | PL40*270 | 1 | 101.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1177 | Column | 2046GF43LPL25 | GF4-25 | PL40*270 | 1 | 101.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1178 | Column | 2046GF43LPL26 | GF4-26 | PL40*270 | 1 | 101.74 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1179 | Column | 2046GF43LPL27 | GF4-27 | PL35*805 | 1 | 274.26 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1180 | Column | 2046GF43LPL28 | GF4-28 | PL35*805 | 1 | 274.26 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1181 | Column | 2046GF43LPL29 | GF4-29 | PL35*400 | 1 | 66.60 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1182 | Column | 2046GF43LPL30 | GF4-30 | PL35*400 | 1 | 66.60 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1183 | Column | 2046GF43LPL31 | GF4-31 | PL30*655 | 1 | 185.10 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1184 | Column | 2046GF43LPL32 | GF4-32 | PL30*655 | 1 | 185.10 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1185 | Column | 2046GF43LPL33 | GF4-33 | PL25*1060 | 1 | 241.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1186 | Column | 2046GF43LPL34 | GF4-34 | PL25*1060 | 1 | 241.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1187 | Column | 2046HF43C35 | HF4-35 | HI675-45-50*675 | 1 | 7776.96 | H | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 20/05/2015 | 370 |
| 1188 | Column | 2046HF43C36 | HF4-36 | HI1500-45-70*825 | 1 | 18548.67 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 29/05/2015 | 96 |
| 1189 | Column | 2046HF43LPL19 | HF4-19 | PL50*320 | 1 | 155.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1190 | Column | 2046HF43LPL20 | HF4-20 | PL50*320 | 1 | 155.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1191 | Column | 2046HF43LPL21 | HF4-21 | PL50*320 | 1 | 155.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1192 | Column | 2046HF43LPL22 | HF4-22 | PL50*320 | 1 | 155.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1193 | Column | 2046HF43LPL23 | HF4-23 | PL40*270 | 1 | 101.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1194 | Column | 2046HF43LPL24 | HF4-24 | PL40*270 | 1 | 101.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1195 | Column | 2046HF43LPL25 | HF4-25 | PL40*270 | 1 | 101.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1196 | Column | 2046HF43LPL26 | HF4-26 | PL40*270 | 1 | 101.74 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1197 | Column | 2046HF43LPL27 | HF4-27 | PL35*805 | 1 | 274.26 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1198 | Column | 2046HF43LPL28 | HF4-28 | PL35*805 | 1 | 274.26 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1199 | Column | 2046HF43LPL29 | HF4-29 | PL35*400 | 1 | 66.60 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1200 | Column | 2046HF43LPL30 | HF4-30 | PL35*400 | 1 | 66.60 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1201 | Column | 2046HF43LPL31 | HF4-31 | PL30*655 | 1 | 185.10 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1202 | Column | 2046HF43LPL32 | HF4-32 | PL30*655 | 1 | 185.10 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 107 |
| 1203 | Column | 2046HF43LPL33 | HF4-33 | PL25*1060 | 1 | 241.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 01/08/2015 | 166 |
| 1204 | Column | 2046HF43LPL34 | HF4-34 | PL25*1060 | 1 | 241.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 03/07/2015 | 127 |
| 1205 | Column | 2046IF43C35 | IF4-35 | HI675-45-50*675 | 1 | 7779.74 | I | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 14/05/2015 | 369 |
| 1206 | Column | 2046IF43C36 | IF4-36 | HI1500-45-70*825 | 1 | 18522.64 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1207 | Column | 2046IF43LPL19 | IF4-19 | PL50*320 | 1 | 155.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1208 | Column | 2046IF43LPL20 | IF4-20 | PL50*320 | 1 | 155.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1209 | Column | 2046IF43LPL21 | IF4-21 | PL50*320 | 1 | 155.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1210 | Column | 2046IF43LPL22 | IF4-22 | PL50*320 | 1 | 155.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1211 | Column | 2046IF43LPL23 | IF4-23 | PL40*270 | 1 | 101.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1212 | Column | 2046IF43LPL24 | IF4-24 | PL40*270 | 1 | 101.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1213 | Column | 2046IF43LPL25 | IF4-25 | PL40*270 | 1 | 101.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1214 | Column | 2046IF43LPL26 | IF4-26 | PL40*270 | 1 | 101.74 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1215 | Column | 2046IF43LPL27 | IF4-27 | PL35*805 | 1 | 274.26 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1216 | Column | 2046IF43LPL28 | IF4-28 | PL35*805 | 1 | 274.26 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1217 | Column | 2046IF43LPL29 | IF4-29 | PL35*400 | 1 | 66.60 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1218 | Column | 2046IF43LPL30 | IF4-30 | PL35*400 | 1 | 66.60 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1219 | Column | 2046IF43LPL31 | IF4-31 | PL30*655 | 1 | 185.10 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1220 | Column | 2046IF43LPL32 | IF4-32 | PL30*655 | 1 | 185.10 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 11/06/2015 | 104 |
| 1221 | Column | 2046IF43LPL33 | IF4-33 | PL25*1060 | 1 | 241.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1222 | Column | 2046IF43LPL34 | IF4-34 | PL25*1060 | 1 | 241.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1223 | Column | 2046JF43C35 | JF4-35 | HI675-45-50*675 | 1 | 7757.31 | J | 4 | 13.1-13.2 | Without Intumescent | Romania | 03/03/2015 | 14/05/2015 | 369 |
| 1224 | Column | 2046JF43C36 | JF4-36 | HI1500-45-70*825 | 1 | 18507.36 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 04/06/2015 | 101 |
| 1225 | Column | 2046JF43LPL19 | JF4-19 | PL50*320 | 1 | 155.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1226 | Column | 2046JF43LPL20 | JF4-20 | PL50*320 | 1 | 155.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1227 | Column | 2046JF43LPL21 | JF4-21 | PL50*320 | 1 | 155.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1228 | Column | 2046JF43LPL22 | JF4-22 | PL50*320 | 1 | 155.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1229 | Column | 2046JF43LPL23 | JF4-23 | PL40*270 | 1 | 101.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1230 | Column | 2046JF43LPL24 | JF4-24 | PL40*270 | 1 | 101.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 24/06/2015 | 117 |
| 1231 | Column | 2046JF43LPL25 | JF4-25 | PL40*270 | 1 | 101.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1232 | Column | 2046JF43LPL26 | JF4-26 | PL40*270 | 1 | 101.74 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 24/06/2015 | 117 |
| 1233 | Column | 2046JF43LPL27 | JF4-27 | PL35*805 | 1 | 274.26 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1234 | Column | 2046JF43LPL28 | JF4-28 | PL35*805 | 1 | 274.26 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1235 | Column | 2046JF43LPL29 | JF4-29 | PL35*400 | 1 | 66.60 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1236 | Column | 2046JF43LPL30 | JF4-30 | PL35*400 | 1 | 66.60 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1237 | Column | 2046JF43LPL31 | JF4-31 | PL30*655 | 1 | 185.10 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 01/08/2015 | 166 |
| 1238 | Column | 2046JF43LPL32 | JF4-32 | PL30*655 | 1 | 185.10 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 24/06/2015 | 117 |
| 1239 | Column | 2046JF43LPL33 | JF4-33 | PL25*1060 | 1 | 241.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1240 | Column | 2046JF43LPL34 | JF4-34 | PL25*1060 | 1 | 241.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 28/04/2015 | 19/06/2015 | 112 |
| 1241 | Column | 2046AF33C69 | AF3-69 | HI1500-50-85*855 | 1 | 22570.95 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 06/05/2015 | 79 |
| 1242 | Column | 2046AF33C70 | AF3-70 | HI1500-50-85*855 | 1 | 22751.96 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 12/05/2015 | 83 |
| 1243 | Column | 2046AF33C71 | AF3-71 | HI675-45-50*675 | 1 | 10754.83 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 29/05/2015 | 97 |
| 1244 | Column | 2046AF33C72 | AF3-72 | HI675-45-50*675 | 1 | 10404.91 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 02/06/2015 | 99 |
| 1245 | Column | 2046AF33LPL37 | AF3-37 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1246 | Column | 2046AF33LPL38 | AF3-38 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1247 | Column | 2046AF33LPL39 | AF3-39 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1248 | Column | 2046AF33LPL40 | AF3-40 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1249 | Column | 2046AF33LPL41 | AF3-41 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1250 | Column | 2046AF33LPL42 | AF3-42 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1251 | Column | 2046AF33LPL43 | AF3-43 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1252 | Column | 2046AF33LPL44 | AF3-44 | PL50*350 | 1 | 126.38 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1253 | Column | 2046AF33LPL45 | AF3-45 | PL45*845 | 1 | 274.62 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1254 | Column | 2046AF33LPL46 | AF3-46 | PL45*845 | 1 | 274.62 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1255 | Column | 2046AF33LPL47 | AF3-47 | PL45*845 | 1 | 274.62 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1256 | Column | 2046AF33LPL48 | AF3-48 | PL45*845 | 1 | 274.62 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1257 | Column | 2046AF33LPL49 | AF3-49 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1258 | Column | 2046AF33LPL50 | AF3-50 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1259 | Column | 2046AF33LPL51 | AF3-51 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1260 | Column | 2046AF33LPL52 | AF3-52 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1261 | Column | 2046AF33LPL53 | AF3-53 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1262 | Column | 2046AF33LPL54 | AF3-54 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1263 | Column | 2046AF33LPL55 | AF3-55 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1264 | Column | 2046AF33LPL56 | AF3-56 | PL40*270 | 1 | 62.74 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1265 | Column | 2046AF33LPL57 | AF3-57 | PL35*400 | 1 | 66.60 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1266 | Column | 2046AF33LPL58 | AF3-58 | PL35*400 | 1 | 66.60 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1267 | Column | 2046AF33LPL59 | AF3-59 | PL35*400 | 1 | 66.60 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1268 | Column | 2046AF33LPL60 | AF3-60 | PL35*400 | 1 | 66.60 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1269 | Column | 2046AF33LPL61 | AF3-61 | PL30*655 | 1 | 114.15 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1270 | Column | 2046AF33LPL62 | AF3-62 | PL30*655 | 1 | 114.15 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 04/06/2015 | 101 |
| 1271 | Column | 2046AF33LPL63 | AF3-63 | PL30*655 | 1 | 114.15 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1272 | Column | 2046AF33LPL64 | AF3-64 | PL30*655 | 1 | 114.15 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 94 |
| 1273 | Column | 2046AF33LPL65 | AF3-65 | PL30*740 | 1 | 203.90 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1274 | Column | 2046AF33LPL66 | AF3-66 | PL30*740 | 1 | 203.90 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 85 |
| 1275 | Column | 2046AF33LPL67 | AF3-67 | PL30*740 | 1 | 203.90 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1276 | Column | 2046AF33LPL68 | AF3-68 | PL30*740 | 1 | 203.90 | A | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 15/05/2015 | 86 |
| 1277 | Column | 2046BF33C35 | BF3-35 | HI1500-50-85*855 | 1 | 22761.60 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 28/05/2015 | 93 |
| 1278 | Column | 2046BF33C36 | BF3-36 | HI675-45-50*675 | 1 | 10726.46 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1279 | Column | 2046BF33LPL19 | BF3-19 | PL50*350 | 1 | 126.38 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1280 | Column | 2046BF33LPL20 | BF3-20 | PL50*350 | 1 | 126.38 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1281 | Column | 2046BF33LPL21 | BF3-21 | PL50*350 | 1 | 126.38 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1282 | Column | 2046BF33LPL22 | BF3-22 | PL50*350 | 1 | 126.38 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1283 | Column | 2046BF33LPL23 | BF3-23 | PL45*845 | 1 | 274.62 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1284 | Column | 2046BF33LPL24 | BF3-24 | PL45*845 | 1 | 274.62 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1285 | Column | 2046BF33LPL25 | BF3-25 | PL40*270 | 1 | 62.74 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1286 | Column | 2046BF33LPL26 | BF3-26 | PL40*270 | 1 | 62.74 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1287 | Column | 2046BF33LPL27 | BF3-27 | PL40*270 | 1 | 62.74 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1288 | Column | 2046BF33LPL28 | BF3-28 | PL40*270 | 1 | 62.74 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1289 | Column | 2046BF33LPL29 | BF3-29 | PL35*400 | 1 | 66.60 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1290 | Column | 2046BF33LPL30 | BF3-30 | PL35*400 | 1 | 66.60 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1291 | Column | 2046BF33LPL31 | BF3-31 | PL30*655 | 1 | 114.15 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1292 | Column | 2046BF33LPL32 | BF3-32 | PL30*655 | 1 | 114.15 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 20/05/2015 | 87 |
| 1293 | Column | 2046BF33LPL33 | BF3-33 | PL30*740 | 1 | 203.90 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1294 | Column | 2046BF33LPL34 | BF3-34 | PL30*740 | 1 | 203.90 | B | 3 | 13.1-13.2 | With Intumescent | Portugal | 02/03/2015 | 22/05/2015 | 91 |
| 1295 | Column | 2046AF43C69 | AF4-69 | HI1500-50-85*855 | 1 | 23556.72 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 29/06/2015 | 121 |
| 1296 | Column | 2046AF43C70 | AF4-70 | HI1500-50-85*855 | 1 | 23118.13 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 29/06/2015 | 120 |
| 1297 | Column | 2046AF43C71 | AF4-71 | HI675-45-50*675 | 1 | 8023.98 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 10/07/2015 | 131 |
| 1298 | Column | 2046AF43C72 | AF4-72 | HI675-45-50*675 | 1 | 7613.85 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 02/07/2015 | 125 |
| 1299 | Column | 2046AF43LPL37 | AF4-37 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1300 | Column | 2046AF43LPL38 | AF4-38 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1301 | Column | 2046AF43LPL39 | AF4-39 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1302 | Column | 2046AF43LPL40 | AF4-40 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1303 | Column | 2046AF43LPL41 | AF4-41 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1304 | Column | 2046AF43LPL42 | AF4-42 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1305 | Column | 2046AF43LPL43 | AF4-43 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1306 | Column | 2046AF43LPL44 | AF4-44 | PL50*350 | 1 | 170.34 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1307 | Column | 2046AF43LPL45 | AF4-45 | PL45*845 | 1 | 370.14 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1308 | Column | 2046AF43LPL46 | AF4-46 | PL45*845 | 1 | 370.14 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 30/06/2015 | 124 |
| 1309 | Column | 2046AF43LPL47 | AF4-47 | PL45*845 | 1 | 370.14 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1310 | Column | 2046AF43LPL48 | AF4-48 | PL45*845 | 1 | 370.14 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1311 | Column | 2046AF43LPL49 | AF4-49 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 19/06/2015 | 112 |
| 1312 | Column | 2046AF43LPL50 | AF4-50 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 19/06/2015 | 112 |
| 1313 | Column | 2046AF43LPL51 | AF4-51 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 24/06/2015 | 117 |
| 1314 | Column | 2046AF43LPL52 | AF4-52 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 24/06/2015 | 117 |
| 1315 | Column | 2046AF43LPL53 | AF4-53 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 10/07/2015 | 131 |
| 1316 | Column | 2046AF43LPL54 | AF4-54 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 10/07/2015 | 131 |
| 1317 | Column | 2046AF43LPL55 | AF4-55 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 10/07/2015 | 131 |
| 1318 | Column | 2046AF43LPL56 | AF4-56 | PL40*270 | 1 | 101.74 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 10/07/2015 | 131 |
| 1319 | Column | 2046AF43LPL57 | AF4-57 | PL35*400 | 1 | 66.60 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1320 | Column | 2046AF43LPL58 | AF4-58 | PL35*400 | 1 | 66.60 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1321 | Column | 2046AF43LPL59 | AF4-59 | PL35*400 | 1 | 66.60 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 17/07/2015 | 136 |
| 1322 | Column | 2046AF43LPL60 | AF4-60 | PL35*400 | 1 | 66.60 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 10/07/2015 | 131 |
| 1323 | Column | 2046AF43LPL61 | AF4-61 | PL30*655 | 1 | 185.10 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1324 | Column | 2046AF43LPL62 | AF4-62 | PL30*655 | 1 | 185.10 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 24/06/2015 | 117 |
| 1325 | Column | 2046AF43LPL63 | AF4-63 | PL30*655 | 1 | 185.10 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 17/07/2015 | 136 |
| 1326 | Column | 2046AF43LPL64 | AF4-64 | PL30*655 | 1 | 185.10 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 17/07/2015 | 136 |
| 1327 | Column | 2046AF43LPL65 | AF4-65 | PL30*1060 | 1 | 289.57 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1328 | Column | 2046AF43LPL66 | AF4-66 | PL30*1060 | 1 | 289.57 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |

### Table A3-01: Schedule of Column Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1329 | Column | 2046AF43LPL67 | AF4-67 | PL30*1060 | 1 | 289.57 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1330 | Column | 2046AF43LPL68 | AF4-68 | PL30*1060 | 1 | 289.57 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 20/04/2015 | 03/07/2015 | 127 |
| 1331 | Column | 2046BF53C18 | BF5-18 | HI1500-50-85*855 | 1 | 18780.45 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 12/06/2015 | 108 |
| 1332 | Column | 2046BF53LPL10 | BF5-10 | PL50*350 | 1 | 126.38 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1333 | Column | 2046BF53LPL11 | BF5-11 | PL50*350 | 1 | 126.38 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1334 | Column | 2046BF53LPL12 | BF5-12 | PL50*350 | 1 | 126.38 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1335 | Column | 2046BF53LPL13 | BF5-13 | PL50*350 | 1 | 126.38 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1336 | Column | 2046BF53LPL14 | BF5-14 | PL45*845 | 1 | 274.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1337 | Column | 2046BF53LPL15 | BF5-15 | PL45*845 | 1 | 274.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1338 | Column | 2046BF53LPL16 | BF5-16 | PL30*740 | 1 | 203.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1339 | Column | 2046BF53LPL17 | BF5-17 | PL30*740 | 1 | 203.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 24/06/2015 | 117 |
| 1340 | Column | 2046CF53C18 | CF5-18 | HI1500-50-85*855 | 1 | 18321.11 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 15/06/2015 | 110 |
| 1341 | Column | 2046CF53LPL10 | CF5-10 | PL50*350 | 1 | 126.38 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1342 | Column | 2046CF53LPL11 | CF5-11 | PL50*350 | 1 | 126.38 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1343 | Column | 2046CF53LPL12 | CF5-12 | PL50*350 | 1 | 126.38 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1344 | Column | 2046CF53LPL13 | CF5-13 | PL50*350 | 1 | 126.38 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1345 | Column | 2046CF53LPL14 | CF5-14 | PL45*845 | 1 | 274.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1346 | Column | 2046CF53LPL15 | CF5-15 | PL45*845 | 1 | 274.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1347 | Column | 2046CF53LPL16 | CF5-16 | PL30*740 | 1 | 203.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1348 | Column | 2046CF53LPL17 | CF5-17 | PL30*740 | 1 | 203.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 23/04/2015 | 30/06/2015 | 124 |
| 1349 | Column | 2046DF53C18 | DF5-18 | HI1500-45-70*825 | 1 | 14891.85 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 20/06/2015 | 115 |
| 1350 | Column | 2046DF53LPL10 | DF5-10 | PL50*320 | 1 | 115.55 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1351 | Column | 2046DF53LPL11 | DF5-11 | PL50*320 | 1 | 115.55 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1352 | Column | 2046DF53LPL12 | DF5-12 | PL50*320 | 1 | 115.55 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1353 | Column | 2046DF53LPL13 | DF5-13 | PL50*320 | 1 | 115.55 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1354 | Column | 2046DF53LPL14 | DF5-14 | PL35*805 | 1 | 203.48 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1355 | Column | 2046DF53LPL15 | DF5-15 | PL35*805 | 1 | 203.48 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1356 | Column | 2046DF53LPL16 | DF5-16 | PL25*740 | 1 | 169.91 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 10/07/2015 | 131 |
| 1357 | Column | 2046DF53LPL17 | DF5-17 | PL25*740 | 1 | 169.91 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 07/04/2015 | 01/08/2015 | 166 |
| 1358 | Column | 2046EF53C18 | EF5-18 | HI1500-45-70*825 | 1 | 14891.85 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 05/06/2015 | 102 |
| 1359 | Column | 2046EF53LPL10 | EF5-10 | PL50*320 | 1 | 115.55 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1360 | Column | 2046EF53LPL11 | EF5-11 | PL50*320 | 1 | 115.55 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1361 | Column | 2046EF53LPL12 | EF5-12 | PL50*320 | 1 | 115.55 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1362 | Column | 2046EF53LPL13 | EF5-13 | PL50*320 | 1 | 115.55 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1363 | Column | 2046EF53LPL14 | EF5-14 | PL35*805 | 1 | 203.48 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1364 | Column | 2046EF53LPL15 | EF5-15 | PL35*805 | 1 | 203.48 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1365 | Column | 2046EF53LPL16 | EF5-16 | PL25*740 | 1 | 169.91 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1366 | Column | 2046EF53LPL17 | EF5-17 | PL25*740 | 1 | 169.91 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 22/04/2015 | 19/06/2015 | 112 |
| 1367 | Column | 2046FF53C18 | FF5-18 | HI1500-45-70*825 | 1 | 14891.85 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 23/06/2015 | 116 |
| 1368 | Column | 2046FF53LPL10 | FF5-10 | PL50*320 | 1 | 115.55 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1369 | Column | 2046FF53LPL11 | FF5-11 | PL50*320 | 1 | 115.55 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1370 | Column | 2046FF53LPL12 | FF5-12 | PL50*320 | 1 | 115.55 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1371 | Column | 2046FF53LPL13 | FF5-13 | PL50*320 | 1 | 115.55 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1372 | Column | 2046FF53LPL14 | FF5-14 | PL35*805 | 1 | 203.48 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1373 | Column | 2046FF53LPL15 | FF5-15 | PL35*805 | 1 | 203.48 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1374 | Column | 2046FF53LPL16 | FF5-16 | PL25*740 | 1 | 169.91 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1375 | Column | 2046FF53LPL17 | FF5-17 | PL25*740 | 1 | 169.91 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1376 | Column | 2046GF53C18 | GF5-18 | HI1500-45-70*825 | 1 | 14891.85 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 25/06/2015 | 119 |
| 1377 | Column | 2046GF53LPL10 | GF5-10 | PL50*320 | 1 | 115.55 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1378 | Column | 2046GF53LPL11 | GF5-11 | PL50*320 | 1 | 115.55 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1379 | Column | 2046GF53LPL12 | GF5-12 | PL50*320 | 1 | 115.55 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1380 | Column | 2046GF53LPL13 | GF5-13 | PL50*320 | 1 | 115.55 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1381 | Column | 2046GF53LPL14 | GF5-14 | PL35*805 | 1 | 203.48 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1382 | Column | 2046GF53LPL15 | GF5-15 | PL35*805 | 1 | 203.48 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1383 | Column | 2046GF53LPL16 | GF5-16 | PL25*740 | 1 | 169.91 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1384 | Column | 2046GF53LPL17 | GF5-17 | PL25*740 | 1 | 169.91 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 10/07/2015 | 131 |
| 1385 | Column | 2046HF53C18 | HF5-18 | HI1500-45-70*825 | 1 | 14891.85 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 02/07/2015 | 126 |
| 1386 | Column | 2046HF53LPL10 | HF5-10 | PL50*320 | 1 | 115.55 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1387 | Column | 2046HF53LPL11 | HF5-11 | PL50*320 | 1 | 115.55 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1388 | Column | 2046HF53LPL12 | HF5-12 | PL50*320 | 1 | 115.55 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1389 | Column | 2046HF53LPL13 | HF5-13 | PL50*320 | 1 | 115.55 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1390 | Column | 2046HF53LPL14 | HF5-14 | PL35*805 | 1 | 203.48 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1391 | Column | 2046HF53LPL15 | HF5-15 | PL35*805 | 1 | 203.48 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1392 | Column | 2046HF53LPL16 | HF5-16 | PL25*740 | 1 | 169.91 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1393 | Column | 2046HF53LPL17 | HF5-17 | PL25*740 | 1 | 169.91 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1394 | Column | 2046IF53C18 | IF5-18 | HI1500-45-70*825 | 1 | 14891.85 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 29/06/2015 | 122 |
| 1395 | Column | 2046IF53LPL10 | IF5-10 | PL50*320 | 1 | 115.55 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1396 | Column | 2046IF53LPL11 | IF5-11 | PL50*320 | 1 | 115.55 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1397 | Column | 2046IF53LPL12 | IF5-12 | PL50*320 | 1 | 115.55 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1398 | Column | 2046IF53LPL13 | IF5-13 | PL50*320 | 1 | 115.55 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1399 | Column | 2046IF53LPL14 | IF5-14 | PL35*805 | 1 | 203.48 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1400 | Column | 2046IF53LPL15 | IF5-15 | PL35*805 | 1 | 203.48 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1401 | Column | 2046IF53LPL16 | IF5-16 | PL25*740 | 1 | 169.91 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1402 | Column | 2046IF53LPL17 | IF5-17 | PL25*740 | 1 | 169.91 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 05/05/2015 | 17/07/2015 | 136 |
| 1403 | Column | 2046AF53C35 | AF5-35 | HI1500-50-85*855 | 1 | 18799.83 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 128 |
| 1404 | Column | 2046AF53C36 | AF5-36 | HI1500-50-85*855 | 1 | 18304.59 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 14/07/2015 | 133 |
| 1405 | Column | 2046AF53LPL19 | AF5-19 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1406 | Column | 2046AF53LPL20 | AF5-20 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1407 | Column | 2046AF53LPL21 | AF5-21 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1408 | Column | 2046AF53LPL22 | AF5-22 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1409 | Column | 2046AF53LPL23 | AF5-23 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1410 | Column | 2046AF53LPL24 | AF5-24 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1411 | Column | 2046AF53LPL25 | AF5-25 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |

**Table A3-01: Schedule of Column Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1412 | Column | 2046AF53LPL26 | AF5-26 | PL50*350 | 1 | 126.38 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1413 | Column | 2046AF53LPL27 | AF5-27 | PL45*845 | 1 | 274.62 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1414 | Column | 2046AF53LPL28 | AF5-28 | PL45*845 | 1 | 274.62 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1415 | Column | 2046AF53LPL29 | AF5-29 | PL45*845 | 1 | 274.62 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1416 | Column | 2046AF53LPL30 | AF5-30 | PL45*845 | 1 | 274.62 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1417 | Column | 2046AF53LPL31 | AF5-31 | PL30*740 | 1 | 203.90 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1418 | Column | 2046AF53LPL32 | AF5-32 | PL30*740 | 1 | 203.90 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1419 | Column | 2046AF53LPL33 | AF5-33 | PL30*740 | 1 | 203.90 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1420 | Column | 2046AF53LPL34 | AF5-34 | PL30*740 | 1 | 203.90 | A | 5 | 13.1-13.2 | With Intumescent | Portugal | 22/04/2015 | 03/07/2015 | 127 |
| 1421 | Column | 2046JF53C18 | JF5-18 | HI1500-45-70*825 | 1 | 14617.32 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 29/06/2015 | 123 |
| 1422 | Column | 2046JF53LPL10 | JF5-10 | PL50*320 | 1 | 115.55 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1423 | Column | 2046JF53LPL11 | JF5-11 | PL50*320 | 1 | 115.55 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1424 | Column | 2046JF53LPL12 | JF5-12 | PL50*320 | 1 | 115.55 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1425 | Column | 2046JF53LPL13 | JF5-13 | PL50*320 | 1 | 115.55 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1426 | Column | 2046JF53LPL14 | JF5-14 | PL35*805 | 1 | 203.48 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1427 | Column | 2046JF53LPL15 | JF5-15 | PL35*805 | 1 | 203.48 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1428 | Column | 2046JF53LPL16 | JF5-16 | PL25*740 | 1 | 169.91 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 1429 | Column | 2046JF53LPL17 | JF5-17 | PL25*740 | 1 | 169.91 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |

**Table A3-02: Schedule of Box-Beam Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start | Fabrication Start Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | box-beam | 2046AF42B235 | AF4-235 | PL55*675 | 1 | 4620.81 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 01/12/2014 | 25/03/2015 | 55 |
| 2 | box-beam | 2046AF42B236 | AF4-236 | PL55*675 | 1 | 4620.81 | A | 4 | 13.3-13.4 | With Intumescent | Portugal | 01/12/2014 | 25/03/2015 | 55 |
| 3 | box-beam | 2046BF42B37 | BF4-37 | PL55*675 | 1 | 4620.81 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 01/12/2014 | 02/02/2015 | 30 |
| 4 | box-beam | 2046CF42B187 | CF4-187 | PL55*675 | 1 | 4620.81 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 02/12/2014 | 06/02/2015 | 32 |
| 5 | box-beam | 2046DF42B37 | DF4-37 | PL55*675 | 1 | 4620.81 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 02/12/2014 | 04/02/2015 | 31 |
| 6 | box-beam | 2046EF42B127 | EF4-127 | PL55*675 | 1 | 4620.81 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 02/12/2014 | 06/02/2015 | 32 |
| 7 | box-beam | 2046FF42B127 | FF4-127 | PL55*675 | 1 | 4620.81 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 26/01/2015 | 27/03/2015 | 58 |
| 8 | box-beam | 2046GF42B82 | GF4-82 | PL55*675 | 1 | 4620.81 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 26/01/2015 | 27/03/2015 | 58 |
| 9 | box-beam | 2046HF42B129 | HF4-129 | PL55*675 | 1 | 4620.81 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 26/01/2015 | 27/03/2015 | 58 |
| 10 | box-beam | 2046IF42B129 | IF4-129 | PL55*675 | 1 | 4620.81 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 02/03/2015 | 04/05/2015 | 76 |
| 11 | box-beam | 2046JF42B133 | JF4-133 | PL55*675 | 1 | 4620.81 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 02/03/2015 | 04/05/2015 | 76 |
| 12 | box-beam | 2046AF45B237 | AF4-237 | PL55*675 | 1 | 4620.81 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 14/05/2015 | 03/07/2015 | 127 |
| 13 | box-beam | 2046AF45B238 | AF4-238 | PL55*675 | 1 | 4620.81 | A | 4 | 13.1-13.2 | With Intumescent | Portugal | 14/05/2015 | 03/07/2015 | 127 |
| 14 | box-beam | 2046BF45B38 | BF4-38 | PL55*675 | 1 | 4620.81 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 25/06/2015 | 119 |
| 15 | box-beam | 2046CF45B188 | CF4-188 | PL55*675 | 1 | 4620.81 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 25/06/2015 | 119 |
| 16 | box-beam | 2046DF45B38 | DF4-38 | PL55*675 | 1 | 4620.81 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 29/06/2015 | 122 |
| 17 | box-beam | 2046EF45B128 | EF4-128 | PL55*675 | 1 | 4620.81 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 29/06/2015 | 122 |
| 18 | box-beam | 2046FF45B128 | FF4-128 | PL55*675 | 1 | 4620.81 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 03/07/2015 | 126 |
| 19 | box-beam | 2046GF45B128 | GF4-128 | PL55*675 | 1 | 4620.81 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 07/07/2015 | 129 |
| 20 | box-beam | 2046HF45B130 | HF4-130 | PL55*675 | 1 | 4620.81 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 03/07/2015 | 126 |
| 21 | box-beam | 2046IF45B130 | IF4-130 | PL55*675 | 1 | 4620.81 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 03/07/2015 | 127 |
| 22 | box-beam | 2046JF45B134 | JF4-134 | PL55*675 | 1 | 4620.81 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 14/05/2015 | 07/07/2015 | 129 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | beam-bracings | 2046AF11LPL10 | AF1-10 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 2 | beam-bracings | 2046AF11LPL11 | AF1-11 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 3 | beam-bracings | 2046AF11LPL12 | AF1-12 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 4 | beam-bracings | 2046AF11LPL13 | AF1-13 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 5 | beam-bracings | 2046AF11LPL14 | AF1-14 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 6 | beam-bracings | 2046AF11LPL15 | AF1-15 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 7 | beam-bracings | 2046AF11LPL18 | AF1-18 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 8 | beam-bracings | 2046AF11LPL19 | AF1-19 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 9 | beam-bracings | 2046AF11LPL21 | AF1-21 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 10 | beam-bracings | 2046AF11LPL22 | AF1-22 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 11 | beam-bracings | 2046AF11LPL23 | AF1-23 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 12 | beam-bracings | 2046AF11LPL24 | AF1-24 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 13 | beam-bracings | 2046AF11LPL26 | AF1-26 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 14 | beam-bracings | 2046AF11LPL27 | AF1-27 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 15 | beam-bracings | 2046AF11LPL28 | AF1-28 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 16 | beam-bracings | 2046AF11LPL29 | AF1-29 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 17 | beam-bracings | 2046AF11LPL30 | AF1-30 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 18 | beam-bracings | 2046AF11LPL31 | AF1-31 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 19 | beam-bracings | 2046AF11LPL32 | AF1-32 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 20 | beam-bracings | 2046AF11LPL33 | AF1-33 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 21 | beam-bracings | 2046AF11LPL35 | AF1-35 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 22 | beam-bracings | 2046AF11LPL36 | AF1-36 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 23 | beam-bracings | 2046AF11LPL37 | AF1-37 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 24 | beam-bracings | 2046AF11LPL38 | AF1-38 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 25 | beam-bracings | 2046AF11LPL42 | AF1-42 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 26 | beam-bracings | 2046AF11LPL52 | AF1-52 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 27 | beam-bracings | 2046AF11LPL54 | AF1-54 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 28 | beam-bracings | 2046AF11LPL55 | AF1-55 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 29 | beam-bracings | 2046AF11LPL56 | AF1-56 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 30 | beam-bracings | 2046AF11LPL65 | AF1-65 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 31 | beam-bracings | 2046AF11LPL16 | AF1-16 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 32 | beam-bracings | 2046AF11LPL66 | AF1-66 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 33 | beam-bracings | 2046AF11LPL67 | AF1-67 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 34 | beam-bracings | 2046AF11LPL68 | AF1-68 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 35 | beam-bracings | 2046AF11LPL20 | AF1-20 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/12/2014 | 17 |
| 36 | beam-bracings | 2046AF11LPL69 | AF1-69 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 37 | beam-bracings | 2046AF11LPL70 | AF1-70 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 38 | beam-bracings | 2046AF11LPL71 | AF1-71 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 39 | beam-bracings | 2046AF11LPL72 | AF1-72 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 40 | beam-bracings | 2046AF11LPL75 | AF1-75 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 41 | beam-bracings | 2046AF11LPL77 | AF1-77 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 42 | beam-bracings | 2046AF11LPL78 | AF1-78 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 43 | beam-bracings | 2046AF11LPL79 | AF1-79 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 44 | beam-bracings | 2046AF11LPL80 | AF1-80 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 45 | beam-bracings | 2046AF11LPL85 | AF1-85 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 46 | beam-bracings | 2046AF11LPL86 | AF1-86 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 47 | beam-bracings | 2046AF11LPL87 | AF1-87 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 48 | beam-bracings | 2046AF11LPL88 | AF1-88 | PL20*390 | 1 | 48.37 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 49 | beam-bracings | 2046EF11LPL5 | EF1-5 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 50 | beam-bracings | 2046EF11LPL6 | EF1-6 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 51 | beam-bracings | 2046EF11LPL7 | EF1-7 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 52 | beam-bracings | 2046AF21BR105 | AF2-105 | CHS355.6*10.0 | 1 | 518.10 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 53 | beam-bracings | 2046AF21BR107 | AF2-107 | CHS323.9*8.0 | 1 | 335.54 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 54 | beam-bracings | 2046AF21BR109 | AF2-109 | CHS323.9*8.0 | 1 | 362.95 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 55 | beam-bracings | 2046AF21BR110 | AF2-110 | CHS323.9*8.0 | 1 | 334.40 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 56 | beam-bracings | 2046AF21BR113 | AF2-113 | CHS323.9*8.0 | 1 | 338.16 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 57 | beam-bracings | 2046AF21BR114 | AF2-114 | CHS323.9*8.0 | 1 | 373.95 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 58 | beam-bracings | 2046AF21BR120 | AF2-120 | CHS323.9*6.3 | 1 | 282.02 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 59 | beam-bracings | 2046AF21LPL97 | AF2-97 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 60 | beam-bracings | 2046AF21LPL98 | AF2-98 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 61 | beam-bracings | 2046AF21LPL99 | AF2-99 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 62 | beam-bracings | 2046AF21LPL100 | AF2-100 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 63 | beam-bracings | 2046AF21LPL101 | AF2-101 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 64 | beam-bracings | 2046AF21LPL102 | AF2-102 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 65 | beam-bracings | 2046AF21LPL103 | AF2-103 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 66 | beam-bracings | 2046AF21LPL104 | AF2-104 | PL10*330 | 1 | 11.14 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 67 | beam-bracings | 2046BF21B72 | BF2-72 | SHS300*10 | 1 | 737.91 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 68 | beam-bracings | 2046BF21BR57 | BF2-57 | CHS355.6*10.0 | 1 | 518.10 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 69 | beam-bracings | 2046BF21BR61 | BF2-61 | CHS323.9*8.0 | 1 | 369.81 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 70 | beam-bracings | 2046BF21BR64 | BF2-64 | CHS323.9*8.0 | 1 | 332.23 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 71 | beam-bracings | 2046BF21BR66 | BF2-66 | CHS323.9*8.0 | 1 | 362.95 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 72 | beam-bracings | 2046AF11LPL57 | AF1-57 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 73 | beam-bracings | 2046AF11LPL58 | AF1-58 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 74 | beam-bracings | 2046AF11LPL59 | AF1-59 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 75 | beam-bracings | 2046AF11LPL60 | AF1-60 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 76 | beam-bracings | 2046AF11LPL61 | AF1-61 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 77 | beam-bracings | 2046AF11LPL62 | AF1-62 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 78 | beam-bracings | 2046AF11LPL63 | AF1-63 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 79 | beam-bracings | 2046AF11LPL64 | AF1-64 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 80 | beam-bracings | 2046BF21LPL49 | BF2-49 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 81 | beam-bracings | 2046BF21LPL50 | BF2-50 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 82 | beam-bracings | 2046BF21LPL51 | BF2-51 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 83 | beam-bracings | 2046BF21LPL53 | BF2-53 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 84 | beam-bracings | 2046BF21LPL55 | BF2-55 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 85 | beam-bracings | 2046BF21LPL56 | BF2-56 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 86 | beam-bracings | 2046CF21B72 | CF2-72 | SHS300*10 | 1 | 740.87 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87 | beam-bracings | 2046CF21B73 | CF2-73 | SHS300*10 | 1 | 720.11 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 88 | beam-bracings | 2046AF11LPL73 | AF1-73 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 89 | beam-bracings | 2046AF11LPL74 | AF1-74 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 90 | beam-bracings | 2046CF21BR59 | CF2-59 | CHS323.9*8.0 | 1 | 373.95 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 91 | beam-bracings | 2046AF11LPL76 | AF1-76 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 92 | beam-bracings | 2046CF21BR60 | CF2-60 | CHS323.9*8.0 | 1 | 335.54 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 93 | beam-bracings | 2046CF21BR62 | CF2-62 | CHS323.9*8.0 | 1 | 767.63 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 94 | beam-bracings | 2046CF21BR63 | CF2-63 | CHS323.9*8.0 | 1 | 821.29 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 95 | beam-bracings | 2046CF21BR64 | CF2-64 | CHS323.9*8.0 | 1 | 332.23 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 96 | beam-bracings | 2046AF11LPL81 | AF1-81 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 97 | beam-bracings | 2046AF11LPL82 | AF1-82 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 98 | beam-bracings | 2046AF11LPL83 | AF1-83 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 99 | beam-bracings | 2046AF11LPL84 | AF1-84 | PL10*330 | 1 | 11.14 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/12/2014 | 17 |
| 100 | beam-bracings | 2046CF21BR65 | CF2-65 | CHS323.9*8.0 | 1 | 362.95 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 101 | beam-bracings | 2046CF21BR66 | CF2-66 | CHS323.9*8.0 | 1 | 362.95 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 102 | beam-bracings | 2046CF21BR67 | CF2-67 | CHS323.9*8.0 | 1 | 760.56 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 103 | beam-bracings | 2046CF21BR68 | CF2-68 | CHS323.9*8.0 | 1 | 803.44 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 104 | beam-bracings | 2046CF21BR71 | CF2-71 | CHS323.9*6.3 | 1 | 282.02 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 105 | beam-bracings | 2046CF21LPL76 | CF2-76 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 106 | beam-bracings | 2046CF21LPL102 | CF2-102 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 107 | beam-bracings | 2046CF21LPL104 | CF2-104 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 108 | beam-bracings | 2046DF21B60 | DF2-60 | SHS300*10 | 1 | 751.61 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 109 | beam-bracings | 2046DF21B61 | DF2-61 | SHS300*10 | 1 | 737.84 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 110 | beam-bracings | 2046DF21BR58 | DF2-58 | CHS323.9*6.3 | 1 | 282.02 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 111 | beam-bracings | 2046DF21BR59 | DF2-59 | CHS323.9*6.3 | 1 | 232.23 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 112 | beam-bracings | 2046EF21B61 | EF2-61 | SHS300*10 | 1 | 739.17 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 113 | beam-bracings | 2046EF21BR58 | EF2-58 | CHS323.9*6.3 | 1 | 282.02 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 114 | beam-bracings | 2046FF21BR57 | FF2-57 | CHS355.6*10.0 | 1 | 518.10 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 115 | beam-bracings | 2046FF21BR59 | FF2-59 | CHS323.9*6.3 | 1 | 232.23 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 116 | beam-bracings | 2046FF21LPL42 | FF2-42 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 117 | beam-bracings | 2046FF21LPL49 | FF2-49 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 118 | beam-bracings | 2046FF21LPL50 | FF2-50 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 119 | beam-bracings | 2046FF21LPL51 | FF2-51 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 120 | beam-bracings | 2046FF21LPL53 | FF2-53 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 121 | beam-bracings | 2046FF21LPL54 | FF2-54 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 122 | beam-bracings | 2046FF21LPL55 | FF2-55 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 123 | beam-bracings | 2046FF21LPL56 | FF2-56 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 124 | beam-bracings | 2046GF21LPL41 | GF2-41 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 125 | beam-bracings | 2046GF21LPL42 | GF2-42 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 126 | beam-bracings | 2046GF21LPL43 | GF2-43 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 127 | beam-bracings | 2046GF21LPL44 | GF2-44 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 128 | beam-bracings | 2046GF21LPL45 | GF2-45 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 129 | beam-bracings | 2046GF21LPL46 | GF2-46 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 130 | beam-bracings | 2046GF21LPL47 | GF2-47 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 131 | beam-bracings | 2046GF21LPL48 | GF2-48 | PL15*350 | 1 | 17.72 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 132 | beam-bracings | 2046GF21LPL50 | GF2-50 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 133 | beam-bracings | 2046GF21LPL52 | GF2-52 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 134 | beam-bracings | 2046GF21LPL53 | GF2-53 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 135 | beam-bracings | 2046HF21LPL42 | HF2-42 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 136 | beam-bracings | 2046HF21LPL43 | HF2-43 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 137 | beam-bracings | 2046HF21LPL44 | HF2-44 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 138 | beam-bracings | 2046HF21LPL45 | HF2-45 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 139 | beam-bracings | 2046IF21LPL37 | IF2-37 | PL20*390 | 1 | 37.35 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 140 | beam-bracings | 2046IF21LPL38 | IF2-38 | PL20*390 | 1 | 37.35 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 141 | beam-bracings | 2046IF21LPL39 | IF2-39 | PL20*390 | 1 | 37.35 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 142 | beam-bracings | 2046IF21LPL40 | IF2-40 | PL20*390 | 1 | 37.35 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 143 | beam-bracings | 2046IF21LPL41 | IF2-41 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 144 | beam-bracings | 2046IF21LPL42 | IF2-42 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 145 | beam-bracings | 2046IF21LPL43 | IF2-43 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 146 | beam-bracings | 2046IF21LPL44 | IF2-44 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 147 | beam-bracings | 2046IF21LPL45 | IF2-45 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 148 | beam-bracings | 2046IF21LPL46 | IF2-46 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 149 | beam-bracings | 2046IF21LPL47 | IF2-47 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 150 | beam-bracings | 2046IF21LPL48 | IF2-48 | PL15*350 | 1 | 17.72 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 151 | beam-bracings | 2046IF21LPL49 | IF2-49 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 152 | beam-bracings | 2046IF21LPL50 | IF2-50 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 153 | beam-bracings | 2046IF21LPL51 | IF2-51 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 154 | beam-bracings | 2046IF21LPL52 | IF2-52 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 155 | beam-bracings | 2046IF21LPL53 | IF2-53 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 156 | beam-bracings | 2046IF21LPL54 | IF2-54 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 157 | beam-bracings | 2046IF21LPL55 | IF2-55 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 158 | beam-bracings | 2046IF21LPL56 | IF2-56 | PL10*330 | 1 | 11.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 159 | beam-bracings | 2046JF21LPL41 | JF2-41 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 160 | beam-bracings | 2046JF21LPL42 | JF2-42 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 161 | beam-bracings | 2046JF21LPL43 | JF2-43 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 162 | beam-bracings | 2046JF21LPL44 | JF2-44 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 163 | beam-bracings | 2046JF21LPL45 | JF2-45 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 164 | beam-bracings | 2046JF21LPL46 | JF2-46 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 165 | beam-bracings | 2046JF21LPL47 | JF2-47 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 166 | beam-bracings | 2046JF21LPL48 | JF2-48 | PL15*350 | 1 | 17.72 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 08/10/2014 | 04 |
| 167 | beam-bracings | 2046AF14B211 | AF1-211 | SHS300*10 | 1 | 715.31 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 168 | beam-bracings | 2046AF14B212 | AF1-212 | SHS300*10 | 1 | 731.50 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 169 | beam-bracings | 2046AF14B213 | AF1-213 | SHS300*10 | 1 | 725.84 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 170 | beam-bracings | 2046AF14BR195 | AF1-195 | CHS355.6*10.0 | 1 | 515.44 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 171 | beam-bracings | 2046AF14BR196 | AF1-196 | CHS355.6*10.0 | 1 | 477.95 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 172 | beam-bracings | 2046AF14BR201 | AF1-201 | CHS323.9*8.0 | 1 | 318.35 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 173 | beam-bracings | 2046AF14BR203 | AF1-203 | CHS323.9*8.0 | 1 | 768.16 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 174 | beam-bracings | 2046AF14BR207 | AF1-207 | CHS323.9*8.0 | 1 | 327.32 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 175 | beam-bracings | 2046AF14BR210 | AF1-210 | CHS323.9*8.0 | 1 | 757.47 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 08/10/2014 | 04 |
| 176 | beam-bracings | 2046AF11B106 | AF1-106 | SHS300*10 | 1 | 715.31 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 177 | beam-bracings | 2046AF11B107 | AF1-107 | SHS300*10 | 1 | 731.50 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 178 | beam-bracings | 2046AF11B108 | AF1-108 | SHS300*10 | 1 | 712.35 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 179 | beam-bracings | 2046AF11B109 | AF1-109 | SHS300*10 | 1 | 725.84 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 180 | beam-bracings | 2046AF11B110 | AF1-110 | HEB300 | 1 | 325.46 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 181 | beam-bracings | 2046AF11B111 | AF1-111 | HEB300 | 1 | 329.69 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 182 | beam-bracings | 2046AF11B112 | AF1-112 | HEB300 | 1 | 329.69 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 183 | beam-bracings | 2046AF11B113 | AF1-113 | HEB300 | 1 | 325.46 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 184 | beam-bracings | 2046AF11BR89 | AF1-89 | CHS355.6*10.0 | 1 | 477.95 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 185 | beam-bracings | 2046AF11BR90 | AF1-90 | CHS355.6*10.0 | 1 | 515.44 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 186 | beam-bracings | 2046AF11BR91 | AF1-91 | CHS355.6*10.0 | 1 | 477.95 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 187 | beam-bracings | 2046AF11BR92 | AF1-92 | CHS355.6*10.0 | 1 | 515.44 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 188 | beam-bracings | 2046AF11BR94 | AF1-94 | CHS323.9*8.0 | 1 | 329.04 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 189 | beam-bracings | 2046AF11BR95 | AF1-95 | CHS323.9*8.0 | 1 | 321.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 190 | beam-bracings | 2046AF11BR96 | AF1-96 | CHS323.9*8.0 | 1 | 318.35 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 191 | beam-bracings | 2046AF11BR97 | AF1-97 | CHS323.9*8.0 | 1 | 321.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 192 | beam-bracings | 2046AF11BR98 | AF1-98 | CHS323.9*8.0 | 1 | 768.16 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 193 | beam-bracings | 2046AF11BR99 | AF1-99 | CHS323.9*8.0 | 1 | 755.08 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 194 | beam-bracings | 2046AF11BR100 | AF1-100 | CHS323.9*8.0 | 1 | 307.36 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 195 | beam-bracings | 2046AF11BR101 | AF1-101 | CHS323.9*8.0 | 1 | 328.46 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 196 | beam-bracings | 2046AF11BR102 | AF1-102 | CHS323.9*8.0 | 1 | 753.94 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 197 | beam-bracings | 2046AF11BR103 | AF1-103 | CHS323.9*8.0 | 1 | 307.36 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 198 | beam-bracings | 2046AF11BR104 | AF1-104 | CHS323.9*8.0 | 1 | 757.47 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 199 | beam-bracings | 2046AF11BR105 | AF1-105 | CHS323.9*8.0 | 1 | 327.32 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 200 | beam-bracings | 2046BF11B92 | BF1-92 | SHS300*10 | 1 | 725.84 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 201 | beam-bracings | 2046BF11B93 | BF1-93 | SHS300*10 | 1 | 712.35 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 202 | beam-bracings | 2046BF11B94 | BF1-94 | SHS300*10 | 1 | 715.31 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 203 | beam-bracings | 2046BF11B95 | BF1-95 | SHS300*10 | 1 | 731.50 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 204 | beam-bracings | 2046BF11B96 | BF1-96 | HEB300 | 1 | 325.46 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 205 | beam-bracings | 2046FF21B60 | FF2-60 | SHS300*10 | 1 | 751.61 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 206 | beam-bracings | 2046FF21B61 | FF2-61 | SHS300*10 | 1 | 739.17 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 207 | beam-bracings | 2046GF21BR58 | GF2-58 | CHS323.9*6.3 | 1 | 282.02 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 208 | beam-bracings | 2046GF21BR59 | GF2-59 | CHS323.9*6.3 | 1 | 232.23 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 209 | beam-bracings | 2046IF21BR57 | IF2-57 | CHS355.6*10.0 | 1 | 518.10 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 210 | beam-bracings | 2046IF21BR59 | IF2-59 | CHS323.9*6.3 | 1 | 232.23 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 211 | beam-bracings | 2046JF21B60 | JF2-60 | SHS300*10 | 1 | 751.61 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 212 | beam-bracings | 2046JF21B61 | JF2-61 | SHS300*10 | 1 | 742.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 213 | beam-bracings | 2046JF21B62 | JF2-62 | HEB300 | 1 | 313.89 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 214 | beam-bracings | 2046JF21BR57 | JF2-57 | CHS355.6*10.0 | 1 | 518.10 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 215 | beam-bracings | 2046JF21BR58 | JF2-58 | CHS323.9*6.3 | 1 | 282.02 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 03/10/2014 | 03 |
| 216 | beam-bracings | 2046AF11LPL9 | AF1-9 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 217 | beam-bracings | 2046AF11LPL17 | AF1-17 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 218 | beam-bracings | 2046AF11LPL25 | AF1-25 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 219 | beam-bracings | 2046AF11LPL34 | AF1-34 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 220 | beam-bracings | 2046AF11LPL39 | AF1-39 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 221 | beam-bracings | 2046AF11LPL40 | AF1-40 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 222 | beam-bracings | 2046AF11LPL41 | AF1-41 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 223 | beam-bracings | 2046AF11LPL43 | AF1-43 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 224 | beam-bracings | 2046AF11LPL44 | AF1-44 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 225 | beam-bracings | 2046AF11LPL45 | AF1-45 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 226 | beam-bracings | 2046AF11LPL46 | AF1-46 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 227 | beam-bracings | 2046AF11LPL47 | AF1-47 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 228 | beam-bracings | 2046AF11LPL48 | AF1-48 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 229 | beam-bracings | 2046AF11LPL49 | AF1-49 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 230 | beam-bracings | 2046AF11LPL50 | AF1-50 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 231 | beam-bracings | 2046AF11LPL51 | AF1-51 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 232 | beam-bracings | 2046AF11LPL53 | AF1-53 | PL15*350 | 1 | 17.72 | A | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 233 | beam-bracings | 2046BF11B97 | BF1-97 | HEB300 | 1 | 329.69 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 234 | beam-bracings | 2046BF11BR77 | BF1-77 | CHS355.6*10.0 | 1 | 477.95 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 235 | beam-bracings | 2046BF11BR78 | BF1-78 | CHS355.6*10.0 | 1 | 515.44 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 236 | beam-bracings | 2046BF11BR80 | BF1-80 | CHS323.9*8.0 | 1 | 328.46 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 237 | beam-bracings | 2046BF11BR81 | BF1-81 | CHS323.9*8.0 | 1 | 307.36 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 238 | beam-bracings | 2046BF11BR82 | BF1-82 | CHS323.9*8.0 | 1 | 329.04 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 239 | beam-bracings | 2046BF11BR83 | BF1-83 | CHS323.9*8.0 | 1 | 755.08 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 240 | beam-bracings | 2046BF11BR84 | BF1-84 | CHS323.9*8.0 | 1 | 321.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 241 | beam-bracings | 2046BF11BR85 | BF1-85 | CHS323.9*8.0 | 1 | 768.16 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 242 | beam-bracings | 2046BF11BR86 | BF1-86 | CHS323.9*8.0 | 1 | 307.36 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 243 | beam-bracings | 2046BF11BR87 | BF1-87 | CHS323.9*8.0 | 1 | 327.32 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 244 | beam-bracings | 2046BF11BR88 | BF1-88 | CHS323.9*8.0 | 1 | 318.35 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 245 | beam-bracings | 2046BF11BR89 | BF1-89 | CHS323.9*8.0 | 1 | 753.94 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 246 | beam-bracings | 2046BF11BR90 | BF1-90 | CHS323.9*8.0 | 1 | 321.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 247 | beam-bracings | 2046BF11BR91 | BF1-91 | CHS323.9*8.0 | 1 | 757.47 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 248 | beam-bracings | 2046BF11LPL5 | BF1-5 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 249 | beam-bracings | 2046BF11LPL6 | BF1-6 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 250 | beam-bracings | 2046BF11LPL7 | BF1-7 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 251 | beam-bracings | 2046BF11LPL8 | BF1-8 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 252 | beam-bracings | 2046BF11LPL9 | BF1-9 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 253 | beam-bracings | 2046BF11LPL10 | BF1-10 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 254 | beam-bracings | 2046BF11LPL11 | BF1-11 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 255 | beam-bracings | 2046BF11LPL12 | BF1-12 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 256 | beam-bracings | 2046BF11LPL13 | BF1-13 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 257 | beam-bracings | 2046BF11LPL14 | BF1-14 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 258 | beam-bracings | 2046BF11LPL15 | BF1-15 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 259 | beam-bracings | 2046BF11LPL16 | BF1-16 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 260 | beam-bracings | 2046BF11LPL17 | BF1-17 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 261 | beam-bracings | 2046BF11LPL18 | BF1-18 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 262 | beam-bracings | 2046BF11LPL19 | BF1-19 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 263 | beam-bracings | 2046BF11LPL20 | BF1-20 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 264 | beam-bracings | 2046BF11LPL21 | BF1-21 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 265 | beam-bracings | 2046BF11LPL22 | BF1-22 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 266 | beam-bracings | 2046BF11LPL23 | BF1-23 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 267 | beam-bracings | 2046BF11LPL24 | BF1-24 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 268 | beam-bracings | 2046BF11LPL25 | BF1-25 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 269 | beam-bracings | 2046BF11LPL26 | BF1-26 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 270 | beam-bracings | 2046BF11LPL27 | BF1-27 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 271 | beam-bracings | 2046BF11LPL28 | BF1-28 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 272 | beam-bracings | 2046BF11LPL29 | BF1-29 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 273 | beam-bracings | 2046BF11LPL30 | BF1-30 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 274 | beam-bracings | 2046BF11LPL31 | BF1-31 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 275 | beam-bracings | 2046BF11LPL32 | BF1-32 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 276 | beam-bracings | 2046BF11LPL33 | BF1-33 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 277 | beam-bracings | 2046BF11LPL34 | BF1-34 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 278 | beam-bracings | 2046BF11LPL35 | BF1-35 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 279 | beam-bracings | 2046BF11LPL36 | BF1-36 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 280 | beam-bracings | 2046BF11LPL37 | BF1-37 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 281 | beam-bracings | 2046BF11LPL38 | BF1-38 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 282 | beam-bracings | 2046BF11LPL39 | BF1-39 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 283 | beam-bracings | 2046BF11LPL40 | BF1-40 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 284 | beam-bracings | 2046BF11LPL41 | BF1-41 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 285 | beam-bracings | 2046BF11LPL42 | BF1-42 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 286 | beam-bracings | 2046BF11LPL43 | BF1-43 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 287 | beam-bracings | 2046BF11LPL44 | BF1-44 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 288 | beam-bracings | 2046BF11LPL45 | BF1-45 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 289 | beam-bracings | 2046BF11LPL46 | BF1-46 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 290 | beam-bracings | 2046BF11LPL47 | BF1-47 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 291 | beam-bracings | 2046BF11LPL48 | BF1-48 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 292 | beam-bracings | 2046BF11LPL49 | BF1-49 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 293 | beam-bracings | 2046BF11LPL50 | BF1-50 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 294 | beam-bracings | 2046BF11LPL51 | BF1-51 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 295 | beam-bracings | 2046BF11LPL52 | BF1-52 | PL15*350 | 1 | 17.72 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 296 | beam-bracings | 2046BF11LPL53 | BF1-53 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 297 | beam-bracings | 2046BF11LPL54 | BF1-54 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 298 | beam-bracings | 2046BF11LPL55 | BF1-55 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 299 | beam-bracings | 2046BF11LPL56 | BF1-56 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 300 | beam-bracings | 2046BF11LPL57 | BF1-57 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 301 | beam-bracings | 2046BF11LPL58 | BF1-58 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 302 | beam-bracings | 2046BF11LPL59 | BF1-59 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 303 | beam-bracings | 2046EF11LPL8 | EF1-8 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 17/12/2014 | 19 |
| 304 | beam-bracings | 2046BF11LPL60 | BF1-60 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 305 | beam-bracings | 2046EF11LPL10 | EF1-10 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 17/12/2014 | 19 |
| 306 | beam-bracings | 2046EF11LPL11 | EF1-11 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 17/12/2014 | 19 |
| 307 | beam-bracings | 2046EF11LPL12 | EF1-12 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 17/12/2014 | 19 |
| 308 | beam-bracings | 2046BF11LPL61 | BF1-61 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 309 | beam-bracings | 2046BF11LPL62 | BF1-62 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 310 | beam-bracings | 2046BF11LPL63 | BF1-63 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 311 | beam-bracings | 2046BF11LPL64 | BF1-64 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 312 | beam-bracings | 2046BF11LPL65 | BF1-65 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 313 | beam-bracings | 2046BF11LPL66 | BF1-66 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 314 | beam-bracings | 2046BF11LPL67 | BF1-67 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 315 | beam-bracings | 2046BF11LPL68 | BF1-68 | PL10*330 | 1 | 11.14 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 316 | beam-bracings | 2046BF11LPL69 | BF1-69 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 317 | beam-bracings | 2046BF11LPL70 | BF1-70 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 318 | beam-bracings | 2046BF11LPL71 | BF1-71 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 319 | beam-bracings | 2046BF11LPL72 | BF1-72 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 320 | beam-bracings | 2046BF11LPL73 | BF1-73 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 321 | beam-bracings | 2046BF11LPL74 | BF1-74 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 322 | beam-bracings | 2046BF11LPL75 | BF1-75 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 323 | beam-bracings | 2046BF11LPL76 | BF1-76 | PL20*390 | 1 | 48.37 | B | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 324 | beam-bracings | 2046CF11B93 | CF1-93 | SHS300*10 | 1 | 725.84 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 325 | beam-bracings | 2046CF11B94 | CF1-94 | SHS300*10 | 1 | 712.35 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 326 | beam-bracings | 2046CF11B95 | CF1-95 | SHS300*10 | 1 | 718.28 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 327 | beam-bracings | 2046CF11B96 | CF1-96 | SHS300*10 | 1 | 734.47 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 328 | beam-bracings | 2046CF11B97 | CF1-97 | HEB300 | 1 | 325.46 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 329 | beam-bracings | 2046CF11B98 | CF1-98 | HEB300 | 1 | 329.69 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 330 | beam-bracings | 2046CF11BR77 | CF1-77 | CHS355.6*10.0 | 1 | 477.95 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 331 | beam-bracings | 2046CF11BR78 | CF1-78 | CHS355.6*10.0 | 1 | 515.44 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 332 | beam-bracings | 2046CF11BR81 | CF1-81 | CHS323.9*8.0 | 1 | 328.46 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 333 | beam-bracings | 2046CF11BR82 | CF1-82 | CHS323.9*8.0 | 1 | 307.36 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 334 | beam-bracings | 2046CF11BR83 | CF1-83 | CHS323.9*8.0 | 1 | 329.04 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 335 | beam-bracings | 2046CF11BR84 | CF1-84 | CHS323.9*8.0 | 1 | 755.08 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 336 | beam-bracings | 2046CF11BR85 | CF1-85 | CHS323.9*8.0 | 1 | 321.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 337 | beam-bracings | 2046CF11BR86 | CF1-86 | CHS323.9*8.0 | 1 | 768.16 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 338 | beam-bracings | 2046CF11BR87 | CF1-87 | CHS323.9*8.0 | 1 | 307.36 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 339 | beam-bracings | 2046CF11BR88 | CF1-88 | CHS323.9*8.0 | 1 | 327.32 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 340 | beam-bracings | 2046CF11BR89 | CF1-89 | CHS323.9*8.0 | 1 | 318.35 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 341 | beam-bracings | 2046CF11BR90 | CF1-90 | CHS323.9*8.0 | 1 | 753.94 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 342 | beam-bracings | 2046CF11BR91 | CF1-91 | CHS323.9*8.0 | 1 | 321.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 343 | beam-bracings | 2046CF11BR92 | CF1-92 | CHS323.9*8.0 | 1 | 757.47 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 344 | beam-bracings | 2046CF11LPL5 | CF1-5 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 345 | beam-bracings | 2046CF11LPL6 | CF1-6 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 346 | beam-bracings | 2046CF11LPL7 | CF1-7 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 347 | beam-bracings | 2046CF11LPL8 | CF1-8 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 348 | beam-bracings | 2046CF11LPL9 | CF1-9 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 349 | beam-bracings | 2046CF11LPL10 | CF1-10 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 350 | beam-bracings | 2046CF11LPL11 | CF1-11 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 351 | beam-bracings | 2046CF11LPL12 | CF1-12 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 352 | beam-bracings | 2046CF11LPL13 | CF1-13 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 353 | beam-bracings | 2046CF11LPL14 | CF1-14 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 354 | beam-bracings | 2046CF11LPL15 | CF1-15 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 355 | beam-bracings | 2046CF11LPL16 | CF1-16 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 356 | beam-bracings | 2046CF11LPL17 | CF1-17 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 357 | beam-bracings | 2046CF11LPL18 | CF1-18 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 358 | beam-bracings | 2046CF11LPL19 | CF1-19 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 359 | beam-bracings | 2046CF11LPL20 | CF1-20 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 360 | beam-bracings | 2046CF11LPL21 | CF1-21 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 361 | beam-bracings | 2046CF11LPL22 | CF1-22 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 362 | beam-bracings | 2046CF11LPL23 | CF1-23 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 363 | beam-bracings | 2046CF11LPL24 | CF1-24 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 364 | beam-bracings | 2046CF11LPL25 | CF1-25 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 365 | beam-bracings | 2046CF11LPL26 | CF1-26 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 366 | beam-bracings | 2046CF11LPL27 | CF1-27 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 367 | beam-bracings | 2046CF11LPL28 | CF1-28 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 368 | beam-bracings | 2046CF11LPL29 | CF1-29 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 369 | beam-bracings | 2046CF11LPL30 | CF1-30 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 370 | beam-bracings | 2046CF11LPL31 | CF1-31 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 371 | beam-bracings | 2046CF11LPL32 | CF1-32 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 372 | beam-bracings | 2046CF11LPL33 | CF1-33 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 373 | beam-bracings | 2046CF11LPL34 | CF1-34 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 374 | beam-bracings | 2046CF11LPL35 | CF1-35 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 375 | beam-bracings | 2046CF11LPL36 | CF1-36 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 376 | beam-bracings | 2046CF11LPL37 | CF1-37 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 377 | beam-bracings | 2046CF11LPL38 | CF1-38 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 378 | beam-bracings | 2046CF11LPL39 | CF1-39 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 379 | beam-bracings | 2046CF11LPL40 | CF1-40 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 380 | beam-bracings | 2046CF11LPL41 | CF1-41 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 381 | beam-bracings | 2046CF11LPL42 | CF1-42 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 382 | beam-bracings | 2046CF11LPL43 | CF1-43 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 383 | beam-bracings | 2046CF11LPL44 | CF1-44 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 384 | beam-bracings | 2046CF11LPL45 | CF1-45 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 385 | beam-bracings | 2046CF11LPL46 | CF1-46 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 386 | beam-bracings | 2046CF11LPL47 | CF1-47 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 387 | beam-bracings | 2046CF11LPL48 | CF1-48 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 388 | beam-bracings | 2046CF11LPL49 | CF1-49 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 389 | beam-bracings | 2046CF11LPL50 | CF1-50 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 390 | beam-bracings | 2046CF11LPL51 | CF1-51 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 391 | beam-bracings | 2046CF11LPL52 | CF1-52 | PL15*350 | 1 | 17.72 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 392 | beam-bracings | 2046CF11LPL53 | CF1-53 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 393 | beam-bracings | 2046CF11LPL54 | CF1-54 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 394 | beam-bracings | 2046CF11LPL55 | CF1-55 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 395 | beam-bracings | 2046CF11LPL56 | CF1-56 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 396 | beam-bracings | 2046CF11LPL57 | CF1-57 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 397 | beam-bracings | 2046CF11LPL58 | CF1-58 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 398 | beam-bracings | 2046CF11LPL59 | CF1-59 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 399 | beam-bracings | 2046CF11LPL60 | CF1-60 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 400 | beam-bracings | 2046CF11LPL61 | CF1-61 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 401 | beam-bracings | 2046CF11LPL62 | CF1-62 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 402 | beam-bracings | 2046CF11LPL63 | CF1-63 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 403 | beam-bracings | 2046CF11LPL64 | CF1-64 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 404 | beam-bracings | 2046CF11LPL65 | CF1-65 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 405 | beam-bracings | 2046CF11LPL66 | CF1-66 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 406 | beam-bracings | 2046CF11LPL67 | CF1-67 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 407 | beam-bracings | 2046CF11LPL68 | CF1-68 | PL10*330 | 1 | 11.14 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 408 | beam-bracings | 2046AF21B123 | AF2-123 | SHS300*10 | 1 | 737.91 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 409 | beam-bracings | 2046AF21B124 | AF2-124 | SHS300*10 | 1 | 720.11 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 410 | beam-bracings | 2046AF21B125 | AF2-125 | HEB300 | 1 | 313.89 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 411 | beam-bracings | 2046AF21B126 | AF2-126 | HEB300 | 1 | 313.89 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 412 | beam-bracings | 2046CF11LPL69 | CF1-69 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 413 | beam-bracings | 2046AF21BR106 | AF2-106 | CHS355.6*10.0 | 1 | 518.10 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 414 | beam-bracings | 2046CF11LPL70 | CF1-70 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 415 | beam-bracings | 2046AF21BR108 | AF2-108 | CHS323.9*8.0 | 1 | 369.81 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 416 | beam-bracings | 2046CF11LPL71 | CF1-71 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 417 | beam-bracings | 2046CF11LPL72 | CF1-72 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 418 | beam-bracings | 2046AF21BR111 | AF2-111 | CHS323.9*8.0 | 1 | 767.63 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 419 | beam-bracings | 2046AF21BR112 | AF2-112 | CHS323.9*8.0 | 1 | 821.29 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 420 | beam-bracings | 2046CF11LPL73 | CF1-73 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 421 | beam-bracings | 2046CF11LPL74 | CF1-74 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 422 | beam-bracings | 2046AF21BR115 | AF2-115 | CHS323.9*8.0 | 1 | 760.56 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 423 | beam-bracings | 2046AF21BR116 | AF2-116 | CHS323.9*8.0 | 1 | 803.44 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 424 | beam-bracings | 2046AF21BR117 | AF2-117 | CHS323.9*8.0 | 1 | 332.23 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 425 | beam-bracings | 2046AF21BR118 | AF2-118 | CHS323.9*8.0 | 1 | 362.95 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 426 | beam-bracings | 2046AF21BR119 | AF2-119 | CHS323.9*6.3 | 1 | 232.23 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 427 | beam-bracings | 2046CF11LPL75 | CF1-75 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 428 | beam-bracings | 2046AF21BR121 | AF2-121 | CHS323.9*6.3 | 1 | 232.23 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 429 | beam-bracings | 2046AF21BR122 | AF2-122 | CHS323.9*6.3 | 1 | 282.02 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 430 | beam-bracings | 2046AF21LPL73 | AF2-73 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 431 | beam-bracings | 2046AF21LPL74 | AF2-74 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 432 | beam-bracings | 2046AF21LPL75 | AF2-75 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 433 | beam-bracings | 2046AF21LPL76 | AF2-76 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 434 | beam-bracings | 2046AF21LPL77 | AF2-77 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 435 | beam-bracings | 2046AF21LPL78 | AF2-78 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 436 | beam-bracings | 2046AF21LPL79 | AF2-79 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 437 | beam-bracings | 2046AF21LPL80 | AF2-80 | PL20*390 | 1 | 37.35 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 24/11/2014 | 14 |
| 438 | beam-bracings | 2046AF21LPL81 | AF2-81 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 439 | beam-bracings | 2046AF21LPL82 | AF2-82 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 440 | beam-bracings | 2046AF21LPL83 | AF2-83 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 441 | beam-bracings | 2046AF21LPL84 | AF2-84 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 442 | beam-bracings | 2046AF21LPL85 | AF2-85 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 443 | beam-bracings | 2046AF21LPL86 | AF2-86 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 444 | beam-bracings | 2046AF21LPL87 | AF2-87 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 445 | beam-bracings | 2046AF21LPL88 | AF2-88 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 446 | beam-bracings | 2046AF21LPL89 | AF2-89 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 447 | beam-bracings | 2046AF21LPL90 | AF2-90 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 448 | beam-bracings | 2046AF21LPL91 | AF2-91 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 449 | beam-bracings | 2046AF21LPL92 | AF2-92 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 450 | beam-bracings | 2046AF21LPL93 | AF2-93 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 451 | beam-bracings | 2046AF21LPL94 | AF2-94 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 452 | beam-bracings | 2046AF21LPL95 | AF2-95 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 453 | beam-bracings | 2046AF21LPL96 | AF2-96 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 454 | beam-bracings | 2046CF11LPL76 | CF1-76 | PL20*390 | 1 | 48.37 | C | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 455 | beam-bracings | 2046DF11B15 | DF1-15 | HEB300 | 1 | 325.46 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 456 | beam-bracings | 2046DF11B16 | DF1-16 | HEB300 | 1 | 329.69 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 457 | beam-bracings | 2046DF11BR13 | DF1-13 | CHS355.6*10.0 | 1 | 477.95 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 458 | beam-bracings | 2046DF11LPL5 | DF1-5 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 459 | beam-bracings | 2046DF11LPL6 | DF1-6 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 460 | beam-bracings | 2046DF11LPL7 | DF1-7 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 461 | beam-bracings | 2046DF11LPL8 | DF1-8 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 462 | beam-bracings | 2046AF21LPL127 | AF2-127 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 463 | beam-bracings | 2046AF21LPL128 | AF2-128 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 464 | beam-bracings | 2046AF21LPL129 | AF2-129 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 465 | beam-bracings | 2046AF21LPL130 | AF2-130 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 466 | beam-bracings | 2046AF21LPL131 | AF2-131 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 467 | beam-bracings | 2046AF21LPL132 | AF2-132 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 468 | beam-bracings | 2046AF21LPL133 | AF2-133 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 469 | beam-bracings | 2046AF21LPL134 | AF2-134 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 470 | beam-bracings | 2046AF21LPL135 | AF2-135 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 471 | beam-bracings | 2046AF21LPL136 | AF2-136 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 472 | beam-bracings | 2046AF21LPL137 | AF2-137 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 473 | beam-bracings | 2046AF21LPL138 | AF2-138 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 474 | beam-bracings | 2046AF21LPL139 | AF2-139 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 475 | beam-bracings | 2046AF21LPL140 | AF2-140 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 476 | beam-bracings | 2046AF21LPL141 | AF2-141 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 477 | beam-bracings | 2046AF21LPL142 | AF2-142 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 478 | beam-bracings | 2046AF21LPL143 | AF2-143 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 479 | beam-bracings | 2046AF21LPL144 | AF2-144 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 480 | beam-bracings | 2046AF21LPL145 | AF2-145 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 481 | beam-bracings | 2046AF21LPL146 | AF2-146 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 482 | beam-bracings | 2046AF21LPL147 | AF2-147 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 483 | beam-bracings | 2046AF21LPL148 | AF2-148 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 484 | beam-bracings | 2046AF21LPL149 | AF2-149 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 485 | beam-bracings | 2046AF21LPL150 | AF2-150 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 486 | beam-bracings | 2046AF21LPL151 | AF2-151 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 487 | beam-bracings | 2046AF21LPL152 | AF2-152 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 488 | beam-bracings | 2046AF21LPL153 | AF2-153 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 489 | beam-bracings | 2046AF21LPL154 | AF2-154 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 490 | beam-bracings | 2046AF21LPL155 | AF2-155 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 491 | beam-bracings | 2046AF21LPL156 | AF2-156 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 492 | beam-bracings | 2046AF21LPL157 | AF2-157 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 493 | beam-bracings | 2046AF21LPL158 | AF2-158 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 494 | beam-bracings | 2046AF21LPL159 | AF2-159 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 495 | beam-bracings | 2046AF21LPL160 | AF2-160 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 496 | beam-bracings | 2046AF21LPL161 | AF2-161 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 497 | beam-bracings | 2046AF21LPL162 | AF2-162 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 498 | beam-bracings | 2046AF21LPL163 | AF2-163 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 499 | beam-bracings | 2046AF21LPL164 | AF2-164 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 500 | beam-bracings | 2046AF21LPL165 | AF2-165 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 501 | beam-bracings | 2046AF21LPL166 | AF2-166 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 502 | beam-bracings | 2046AF21LPL167 | AF2-167 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 503 | beam-bracings | 2046AF21LPL168 | AF2-168 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 504 | beam-bracings | 2046AF21LPL169 | AF2-169 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 505 | beam-bracings | 2046AF21LPL170 | AF2-170 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 506 | beam-bracings | 2046AF21LPL171 | AF2-171 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 507 | beam-bracings | 2046AF21LPL172 | AF2-172 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 508 | beam-bracings | 2046AF21LPL173 | AF2-173 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 509 | beam-bracings | 2046AF21LPL174 | AF2-174 | PL15*350 | 1 | 17.72 | A | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 510 | beam-bracings | 2046DF11LPL9 | DF1-9 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 511 | beam-bracings | 2046BF21B73 | BF2-73 | SHS300*10 | 1 | 720.11 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 512 | beam-bracings | 2046BF21B74 | BF2-74 | HEB300 | 1 | 313.89 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 513 | beam-bracings | 2046DF11LPL10 | DF1-10 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 514 | beam-bracings | 2046BF21BR58 | BF2-58 | CHS323.9*8.0 | 1 | 338.16 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 515 | beam-bracings | 2046BF21BR59 | BF2-59 | CHS323.9*8.0 | 1 | 373.95 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 516 | beam-bracings | 2046BF21BR60 | BF2-60 | CHS323.9*8.0 | 1 | 335.54 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 517 | beam-bracings | 2046DF11LPL11 | DF1-11 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 518 | beam-bracings | 2046BF21BR62 | BF2-62 | CHS323.9*8.0 | 1 | 767.63 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 519 | beam-bracings | 2046BF21BR63 | BF2-63 | CHS323.9*8.0 | 1 | 821.29 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 520 | beam-bracings | 2046DF11LPL12 | DF1-12 | PL20*390 | 1 | 48.37 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 521 | beam-bracings | 2046BF21BR65 | BF2-65 | CHS323.9*8.0 | 1 | 362.95 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 522 | beam-bracings | 2046EF11B15 | EF1-15 | HEB300 | 1 | 325.46 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 523 | beam-bracings | 2046BF21BR67 | BF2-67 | CHS323.9*8.0 | 1 | 760.56 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 524 | beam-bracings | 2046BF21BR68 | BF2-68 | CHS323.9*8.0 | 1 | 803.44 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 525 | beam-bracings | 2046BF21BR69 | BF2-69 | CHS323.9*8.0 | 1 | 334.40 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 526 | beam-bracings | 2046BF21BR70 | BF2-70 | CHS323.9*6.3 | 1 | 232.23 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 527 | beam-bracings | 2046BF21BR71 | BF2-71 | CHS323.9*6.3 | 1 | 282.02 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 528 | beam-bracings | 2046BF21LPL37 | BF2-37 | PL20*390 | 1 | 37.35 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 529 | beam-bracings | 2046BF21LPL38 | BF2-38 | PL20*390 | 1 | 37.35 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 530 | beam-bracings | 2046BF21LPL39 | BF2-39 | PL20*390 | 1 | 37.35 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 531 | beam-bracings | 2046BF21LPL40 | BF2-40 | PL20*390 | 1 | 37.35 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 532 | beam-bracings | 2046BF21LPL41 | BF2-41 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 533 | beam-bracings | 2046BF21LPL42 | BF2-42 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 534 | beam-bracings | 2046BF21LPL43 | BF2-43 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 535 | beam-bracings | 2046BF21LPL44 | BF2-44 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 536 | beam-bracings | 2046BF21LPL45 | BF2-45 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 537 | beam-bracings | 2046BF21LPL46 | BF2-46 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 538 | beam-bracings | 2046BF21LPL47 | BF2-47 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 539 | beam-bracings | 2046BF21LPL48 | BF2-48 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 540 | beam-bracings | 2046EF11B16 | EF1-16 | HEB300 | 1 | 329.69 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 541 | beam-bracings | 2046EF11BR13 | EF1-13 | CHS355.6*10.0 | 1 | 477.95 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 542 | beam-bracings | 2046EF11BR14 | EF1-14 | CHS355.6*10.0 | 1 | 515.44 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 543 | beam-bracings | 2046BF21LPL52 | BF2-52 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 544 | beam-bracings | 2046EF11LPL9 | EF1-9 | PL20*390 | 1 | 48.37 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 30/09/2014 | 02 |
| 545 | beam-bracings | 2046BF21LPL54 | BF2-54 | PL10*330 | 1 | 11.14 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 546 | beam-bracings | 2046BF21LPL75 | BF2-75 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 547 | beam-bracings | 2046BF21LPL76 | BF2-76 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 548 | beam-bracings | 2046BF21LPL77 | BF2-77 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 549 | beam-bracings | 2046BF21LPL78 | BF2-78 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 550 | beam-bracings | 2046BF21LPL79 | BF2-79 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 551 | beam-bracings | 2046BF21LPL80 | BF2-80 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 552 | beam-bracings | 2046BF21LPL81 | BF2-81 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 553 | beam-bracings | 2046BF21LPL82 | BF2-82 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 554 | beam-bracings | 2046BF21LPL83 | BF2-83 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 555 | beam-bracings | 2046BF21LPL84 | BF2-84 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 556 | beam-bracings | 2046BF21LPL85 | BF2-85 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 557 | beam-bracings | 2046BF21LPL86 | BF2-86 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 558 | beam-bracings | 2046BF21LPL87 | BF2-87 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 559 | beam-bracings | 2046BF21LPL88 | BF2-88 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 560 | beam-bracings | 2046BF21LPL89 | BF2-89 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 561 | beam-bracings | 2046BF21LPL90 | BF2-90 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 562 | beam-bracings | 2046BF21LPL91 | BF2-91 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 563 | beam-bracings | 2046BF21LPL92 | BF2-92 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 564 | beam-bracings | 2046BF21LPL93 | BF2-93 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 565 | beam-bracings | 2046BF21LPL94 | BF2-94 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 566 | beam-bracings | 2046BF21LPL95 | BF2-95 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 567 | beam-bracings | 2046BF21LPL96 | BF2-96 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 568 | beam-bracings | 2046BF21LPL97 | BF2-97 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 569 | beam-bracings | 2046BF21LPL98 | BF2-98 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 570 | beam-bracings | 2046BF21LPL99 | BF2-99 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 571 | beam-bracings | 2046BF21LPL100 | BF2-100 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 572 | beam-bracings | 2046BF21LPL101 | BF2-101 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 573 | beam-bracings | 2046BF21LPL102 | BF2-102 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 574 | beam-bracings | 2046BF21LPL103 | BF2-103 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 575 | beam-bracings | 2046BF21LPL104 | BF2-104 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 576 | beam-bracings | 2046BF21LPL105 | BF2-105 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 577 | beam-bracings | 2046BF21LPL106 | BF2-106 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 578 | beam-bracings | 2046BF21LPL107 | BF2-107 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 579 | beam-bracings | 2046BF21LPL108 | BF2-108 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 580 | beam-bracings | 2046BF21LPL109 | BF2-109 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 581 | beam-bracings | 2046BF21LPL110 | BF2-110 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 582 | beam-bracings | 2046BF21LPL111 | BF2-111 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 583 | beam-bracings | 2046BF21LPL112 | BF2-112 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 584 | beam-bracings | 2046BF21LPL113 | BF2-113 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 585 | beam-bracings | 2046BF21LPL114 | BF2-114 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 586 | beam-bracings | 2046BF21LPL115 | BF2-115 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 587 | beam-bracings | 2046BF21LPL116 | BF2-116 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 588 | beam-bracings | 2046BF21LPL117 | BF2-117 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 589 | beam-bracings | 2046BF21LPL118 | BF2-118 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 590 | beam-bracings | 2046BF21LPL119 | BF2-119 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 591 | beam-bracings | 2046BF21LPL120 | BF2-120 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 592 | beam-bracings | 2046BF21LPL121 | BF2-121 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 593 | beam-bracings | 2046BF21LPL122 | BF2-122 | PL15*350 | 1 | 17.72 | B | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 594 | beam-bracings | 2046CF21B74 | CF2-74 | HEB300 | 1 | 313.89 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 595 | beam-bracings | 2046CF21BR57 | CF2-57 | CHS355.6*10.0 | 1 | 518.61 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 596 | beam-bracings | 2046CF21BR58 | CF2-58 | CHS323.9*8.0 | 1 | 338.16 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 597 | beam-bracings | 2046CF21BR61 | CF2-61 | CHS323.9*8.0 | 1 | 369.81 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 598 | beam-bracings | 2046CF21BR69 | CF2-69 | CHS323.9*8.0 | 1 | 334.40 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 599 | beam-bracings | 2046CF21BR70 | CF2-70 | CHS323.9*6.3 | 1 | 232.23 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 600 | beam-bracings | 2046CF21LPL37 | CF2-37 | PL20*390 | 1 | 37.35 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 601 | beam-bracings | 2046CF21LPL38 | CF2-38 | PL20*390 | 1 | 37.35 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 602 | beam-bracings | 2046CF21LPL39 | CF2-39 | PL20*390 | 1 | 37.35 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 603 | beam-bracings | 2046CF21LPL40 | CF2-40 | PL20*390 | 1 | 37.35 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 604 | beam-bracings | 2046CF21LPL41 | CF2-41 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 605 | beam-bracings | 2046CF21LPL42 | CF2-42 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 606 | beam-bracings | 2046CF21LPL43 | CF2-43 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 607 | beam-bracings | 2046CF21LPL44 | CF2-44 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 608 | beam-bracings | 2046CF21LPL45 | CF2-45 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 609 | beam-bracings | 2046CF21LPL46 | CF2-46 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 610 | beam-bracings | 2046CF21LPL47 | CF2-47 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 611 | beam-bracings | 2046CF21LPL48 | CF2-48 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 612 | beam-bracings | 2046CF21LPL49 | CF2-49 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 613 | beam-bracings | 2046CF21LPL50 | CF2-50 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 614 | beam-bracings | 2046CF21LPL51 | CF2-51 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 615 | beam-bracings | 2046CF21LPL52 | CF2-52 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 616 | beam-bracings | 2046CF21LPL53 | CF2-53 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 617 | beam-bracings | 2046CF21LPL54 | CF2-54 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 618 | beam-bracings | 2046CF21LPL55 | CF2-55 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 619 | beam-bracings | 2046CF21LPL56 | CF2-56 | PL10*330 | 1 | 11.14 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 620 | beam-bracings | 2046CF21LPL75 | CF2-75 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 621 | beam-bracings | 2046CF21LPL77 | CF2-77 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 622 | beam-bracings | 2046CF21LPL78 | CF2-78 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 623 | beam-bracings | 2046CF21LPL79 | CF2-79 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 624 | beam-bracings | 2046CF21LPL80 | CF2-80 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 625 | beam-bracings | 2046CF21LPL81 | CF2-81 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 626 | beam-bracings | 2046CF21LPL82 | CF2-82 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 627 | beam-bracings | 2046CF21LPL83 | CF2-83 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 628 | beam-bracings | 2046CF21LPL84 | CF2-84 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 629 | beam-bracings | 2046CF21LPL85 | CF2-85 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 630 | beam-bracings | 2046CF21LPL86 | CF2-86 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 631 | beam-bracings | 2046CF21LPL87 | CF2-87 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 632 | beam-bracings | 2046CF21LPL88 | CF2-88 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 633 | beam-bracings | 2046CF21LPL89 | CF2-89 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 634 | beam-bracings | 2046CF21LPL90 | CF2-90 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 635 | beam-bracings | 2046CF21LPL91 | CF2-91 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 636 | beam-bracings | 2046CF21LPL92 | CF2-92 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 637 | beam-bracings | 2046CF21LPL93 | CF2-93 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 638 | beam-bracings | 2046CF21LPL94 | CF2-94 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 639 | beam-bracings | 2046CF21LPL95 | CF2-95 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 640 | beam-bracings | 2046CF21LPL96 | CF2-96 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 641 | beam-bracings | 2046CF21LPL97 | CF2-97 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 642 | beam-bracings | 2046CF21LPL98 | CF2-98 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 643 | beam-bracings | 2046CF21LPL99 | CF2-99 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 644 | beam-bracings | 2046CF21LPL100 | CF2-100 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 645 | beam-bracings | 2046CF21LPL101 | CF2-101 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 646 | beam-bracings | 2046CF21LPL103 | CF2-103 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 647 | beam-bracings | 2046CF21LPL105 | CF2-105 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 648 | beam-bracings | 2046CF21LPL106 | CF2-106 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 649 | beam-bracings | 2046CF21LPL107 | CF2-107 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 650 | beam-bracings | 2046CF21LPL108 | CF2-108 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 651 | beam-bracings | 2046CF21LPL109 | CF2-109 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 652 | beam-bracings | 2046CF21LPL110 | CF2-110 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 653 | beam-bracings | 2046CF21LPL111 | CF2-111 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 654 | beam-bracings | 2046CF21LPL112 | CF2-112 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 655 | beam-bracings | 2046CF21LPL113 | CF2-113 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 656 | beam-bracings | 2046CF21LPL114 | CF2-114 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 657 | beam-bracings | 2046CF21LPL115 | CF2-115 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 658 | beam-bracings | 2046CF21LPL116 | CF2-116 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 659 | beam-bracings | 2046CF21LPL117 | CF2-117 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 660 | beam-bracings | 2046CF21LPL118 | CF2-118 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 661 | beam-bracings | 2046CF21LPL119 | CF2-119 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 662 | beam-bracings | 2046CF21LPL120 | CF2-120 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 663 | beam-bracings | 2046CF21LPL121 | CF2-121 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 664 | beam-bracings | 2046CF21LPL122 | CF2-122 | PL15*350 | 1 | 17.72 | C | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 665 | beam-bracings | 2046DF21B62 | DF2-62 | HEB300 | 1 | 313.89 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 14/11/2014 | 13 |
| 666 | beam-bracings | 2046DF21BR57 | DF2-57 | CHS355.6*10.0 | 1 | 518.10 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 667 | beam-bracings | 2046DF21LPL37 | DF2-37 | PL20*390 | 1 | 37.35 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 668 | beam-bracings | 2046DF21LPL38 | DF2-38 | PL20*390 | 1 | 37.35 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 669 | beam-bracings | 2046DF21LPL39 | DF2-39 | PL20*390 | 1 | 37.35 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 670 | beam-bracings | 2046DF21LPL40 | DF2-40 | PL20*390 | 1 | 37.35 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 671 | beam-bracings | 2046DF21LPL41 | DF2-41 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 672 | beam-bracings | 2046DF21LPL42 | DF2-42 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 673 | beam-bracings | 2046DF21LPL43 | DF2-43 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 674 | beam-bracings | 2046DF21LPL44 | DF2-44 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 675 | beam-bracings | 2046DF21LPL45 | DF2-45 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 676 | beam-bracings | 2046DF21LPL46 | DF2-46 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 677 | beam-bracings | 2046DF21LPL47 | DF2-47 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 678 | beam-bracings | 2046DF21LPL48 | DF2-48 | PL15*350 | 1 | 17.72 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 679 | beam-bracings | 2046DF21LPL49 | DF2-49 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 680 | beam-bracings | 2046DF21LPL50 | DF2-50 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 681 | beam-bracings | 2046DF21LPL51 | DF2-51 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 682 | beam-bracings | 2046DF21LPL52 | DF2-52 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 683 | beam-bracings | 2046DF21LPL53 | DF2-53 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 684 | beam-bracings | 2046DF21LPL54 | DF2-54 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 685 | beam-bracings | 2046DF21LPL55 | DF2-55 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 686 | beam-bracings | 2046DF21LPL56 | DF2-56 | PL10*330 | 1 | 11.14 | D | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 687 | beam-bracings | 2046EF21B60 | EF2-60 | SHS300*10 | 1 | 751.61 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 688 | beam-bracings | 2046EF21B62 | EF2-62 | HEB300 | 1 | 313.89 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 689 | beam-bracings | 2046EF21BR57 | EF2-57 | CHS355.6*10.0 | 1 | 518.10 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 690 | beam-bracings | 2046EF21BR59 | EF2-59 | CHS323.9*6.3 | 1 | 232.23 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 691 | beam-bracings | 2046EF21LPL37 | EF2-37 | PL20*390 | 1 | 37.35 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 692 | beam-bracings | 2046EF21LPL38 | EF2-38 | PL20*390 | 1 | 37.35 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 693 | beam-bracings | 2046EF21LPL39 | EF2-39 | PL20*390 | 1 | 37.35 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 694 | beam-bracings | 2046EF21LPL40 | EF2-40 | PL20*390 | 1 | 37.35 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 695 | beam-bracings | 2046EF21LPL41 | EF2-41 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 696 | beam-bracings | 2046EF21LPL42 | EF2-42 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 697 | beam-bracings | 2046EF21LPL43 | EF2-43 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 698 | beam-bracings | 2046EF21LPL44 | EF2-44 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 699 | beam-bracings | 2046EF21LPL45 | EF2-45 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 700 | beam-bracings | 2046EF21LPL46 | EF2-46 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 701 | beam-bracings | 2046EF21LPL47 | EF2-47 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 702 | beam-bracings | 2046EF21LPL48 | EF2-48 | PL15*350 | 1 | 17.72 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 703 | beam-bracings | 2046EF21LPL49 | EF2-49 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 704 | beam-bracings | 2046EF21LPL50 | EF2-50 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 705 | beam-bracings | 2046EF21LPL51 | EF2-51 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 706 | beam-bracings | 2046EF21LPL52 | EF2-52 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 707 | beam-bracings | 2046EF21LPL53 | EF2-53 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 708 | beam-bracings | 2046EF21LPL54 | EF2-54 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 709 | beam-bracings | 2046EF21LPL55 | EF2-55 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 710 | beam-bracings | 2046EF21LPL56 | EF2-56 | PL10*330 | 1 | 11.14 | E | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 711 | beam-bracings | 2046FF21B62 | FF2-62 | HEB300 | 1 | 313.89 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 712 | beam-bracings | 2046FF21BR58 | FF2-58 | CHS323.9*6.3 | 1 | 282.02 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 713 | beam-bracings | 2046FF21LPL37 | FF2-37 | PL20*390 | 1 | 37.35 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 714 | beam-bracings | 2046FF21LPL38 | FF2-38 | PL20*390 | 1 | 37.35 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 715 | beam-bracings | 2046FF21LPL39 | FF2-39 | PL20*390 | 1 | 37.35 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 716 | beam-bracings | 2046FF21LPL40 | FF2-40 | PL20*390 | 1 | 37.35 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 717 | beam-bracings | 2046FF21LPL41 | FF2-41 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 718 | beam-bracings | 2046FF21LPL43 | FF2-43 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 719 | beam-bracings | 2046FF21LPL44 | FF2-44 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 720 | beam-bracings | 2046FF21LPL45 | FF2-45 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/07/2015 | 155 |
| 721 | beam-bracings | 2046FF21LPL46 | FF2-46 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/07/2015 | 155 |
| 722 | beam-bracings | 2046FF21LPL47 | FF2-47 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/07/2015 | 155 |
| 723 | beam-bracings | 2046FF21LPL48 | FF2-48 | PL15*350 | 1 | 17.72 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 724 | beam-bracings | 2046FF21LPL52 | FF2-52 | PL10*330 | 1 | 11.14 | F | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 725 | beam-bracings | 2046GF21B60 | GF2-60 | SHS300*10 | 1 | 751.61 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 726 | beam-bracings | 2046GF21B61 | GF2-61 | SHS300*10 | 1 | 739.17 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 727 | beam-bracings | 2046GF21B62 | GF2-62 | HEB300 | 1 | 313.89 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 728 | beam-bracings | 2046GF21BR57 | GF2-57 | CHS355.6*10.0 | 1 | 518.10 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 729 | beam-bracings | 2046GF21LPL37 | GF2-37 | PL20*390 | 1 | 37.35 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 730 | beam-bracings | 2046GF21LPL38 | GF2-38 | PL20*390 | 1 | 37.35 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 731 | beam-bracings | 2046GF21LPL39 | GF2-39 | PL20*390 | 1 | 37.35 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 732 | beam-bracings | 2046GF21LPL40 | GF2-40 | PL20*390 | 1 | 37.35 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 733 | beam-bracings | 2046GF21LPL49 | GF2-49 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 01/12/2014 | 16 |
| 734 | beam-bracings | 2046GF21LPL51 | GF2-51 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 06/02/2015 | 32 |
| 735 | beam-bracings | 2046GF21LPL54 | GF2-54 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 736 | beam-bracings | 2046GF21LPL55 | GF2-55 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 737 | beam-bracings | 2046GF21LPL56 | GF2-56 | PL10*330 | 1 | 11.14 | G | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 738 | beam-bracings | 2046HF21B60 | HF2-60 | SHS300*10 | 1 | 751.61 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 09/01/2015 | 21 |
| 739 | beam-bracings | 2046HF21B61 | HF2-61 | SHS300*10 | 1 | 745.10 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 740 | beam-bracings | 2046HF21B62 | HF2-62 | HEB300 | 1 | 313.89 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 741 | beam-bracings | 2046HF21BR57 | HF2-57 | CHS355.6*10.0 | 1 | 518.10 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 742 | beam-bracings | 2046HF21BR58 | HF2-58 | CHS323.9*6.3 | 1 | 282.02 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 743 | beam-bracings | 2046HF21BR59 | HF2-59 | CHS323.9*6.3 | 1 | 232.23 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 744 | beam-bracings | 2046HF21LPL37 | HF2-37 | PL20*390 | 1 | 37.35 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 745 | beam-bracings | 2046HF21LPL38 | HF2-38 | PL20*390 | 1 | 37.35 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 746 | beam-bracings | 2046HF21LPL39 | HF2-39 | PL20*390 | 1 | 37.35 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 747 | beam-bracings | 2046HF21LPL40 | HF2-40 | PL20*390 | 1 | 37.35 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 748 | beam-bracings | 2046HF21LPL41 | HF2-41 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 749 | beam-bracings | 2046HF21LPL46 | HF2-46 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 750 | beam-bracings | 2046HF21LPL47 | HF2-47 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 751 | beam-bracings | 2046HF21LPL48 | HF2-48 | PL15*350 | 1 | 17.72 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 752 | beam-bracings | 2046HF21LPL49 | HF2-49 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 753 | beam-bracings | 2046HF21LPL50 | HF2-50 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 754 | beam-bracings | 2046HF21LPL51 | HF2-51 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 755 | beam-bracings | 2046HF21LPL52 | HF2-52 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 756 | beam-bracings | 2046HF21LPL53 | HF2-53 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 757 | beam-bracings | 2046HF21LPL54 | HF2-54 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 758 | beam-bracings | 2046HF21LPL55 | HF2-55 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 759 | beam-bracings | 2046HF21LPL56 | HF2-56 | PL10*330 | 1 | 11.14 | H | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 760 | beam-bracings | 2046IF21B60 | IF2-60 | SHS300*10 | 1 | 751.61 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 761 | beam-bracings | 2046IF21B61 | IF2-61 | SHS300*10 | 1 | 742.14 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 27/10/2014 | 07 |
| 762 | beam-bracings | 2046IF21B62 | IF2-62 | HEB300 | 1 | 313.89 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 763 | beam-bracings | 2046IF21BR58 | IF2-58 | CHS323.9*6.3 | 1 | 282.02 | I | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 764 | beam-bracings | 2046JF21BR59 | JF2-59 | CHS323.9*6.3 | 1 | 232.23 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 765 | beam-bracings | 2046JF21LPL37 | JF2-37 | PL20*390 | 1 | 37.35 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 766 | beam-bracings | 2046JF21LPL38 | JF2-38 | PL20*390 | 1 | 37.35 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 767 | beam-bracings | 2046JF21LPL39 | JF2-39 | PL20*390 | 1 | 37.35 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 22/01/2015 | 25 |
| 768 | beam-bracings | 2046JF21LPL40 | JF2-40 | PL20*390 | 1 | 37.35 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 769 | beam-bracings | 2046JF21LPL49 | JF2-49 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 770 | beam-bracings | 2046JF21LPL50 | JF2-50 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 771 | beam-bracings | 2046JF21LPL51 | JF2-51 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 772 | beam-bracings | 2046JF21LPL52 | JF2-52 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 773 | beam-bracings | 2046JF21LPL53 | JF2-53 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 774 | beam-bracings | 2046JF21LPL54 | JF2-54 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 775 | beam-bracings | 2046JF21LPL55 | JF2-55 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 776 | beam-bracings | 2046JF21LPL56 | JF2-56 | PL10*330 | 1 | 11.14 | J | 2 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 777 | beam-bracings | 2046JF31B69 | JF3-69 | SHS300*10 | 1 | 751.61 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 778 | beam-bracings | 2046JF31B70 | JF3-70 | SHS300*10 | 1 | 751.61 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 779 | beam-bracings | 2046JF31B71 | JF3-71 | SHS300*10 | 1 | 742.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 780 | beam-bracings | 2046JF31B72 | JF3-72 | SHS300*10 | 1 | 742.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 781 | beam-bracings | 2046JF31B74 | JF3-74 | HEB300 | 1 | 318.84 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 782 | beam-bracings | 2046JF31BR67 | JF3-67 | CHS323.9*6.3 | 1 | 234.85 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 783 | beam-bracings | 2046JF31BR68 | JF3-68 | CHS323.9*6.3 | 1 | 234.85 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 784 | beam-bracings | 2046JF31LPL41 | JF3-41 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 785 | beam-bracings | 2046JF31LPL42 | JF3-42 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 786 | beam-bracings | 2046JF31LPL43 | JF3-43 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 787 | beam-bracings | 2046JF31LPL44 | JF3-44 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 788 | beam-bracings | 2046JF31LPL45 | JF3-45 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 789 | beam-bracings | 2046JF31LPL46 | JF3-46 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 790 | beam-bracings | 2046JF31LPL47 | JF3-47 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 791 | beam-bracings | 2046JF31LPL48 | JF3-48 | PL15*350 | 1 | 17.72 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 792 | beam-bracings | 2046JF31LPL50 | JF3-50 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 793 | beam-bracings | 2046JF31LPL51 | JF3-51 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 794 | beam-bracings | 2046JF31LPL52 | JF3-52 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 795 | beam-bracings | 2046JF31LPL53 | JF3-53 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 796 | beam-bracings | 2046JF31LPL54 | JF3-54 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 797 | beam-bracings | 2046JF31LPL55 | JF3-55 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 798 | beam-bracings | 2046JF31LPL56 | JF3-56 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 799 | beam-bracings | 2046JF31LPL57 | JF3-57 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 800 | beam-bracings | 2046JF31LPL58 | JF3-58 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 801 | beam-bracings | 2046JF31LPL59 | JF3-59 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 802 | beam-bracings | 2046JF31LPL60 | JF3-60 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 803 | beam-bracings | 2046JF31LPL61 | JF3-61 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 804 | beam-bracings | 2046JF31LPL62 | JF3-62 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 805 | beam-bracings | 2046JF31LPL63 | JF3-63 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 806 | beam-bracings | 2046JF31LPL64 | JF3-64 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 807 | beam-bracings | 2046JF31LPL65 | JF3-65 | PL10*330 | 1 | 11.14 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 808 | beam-bracings | 2046HF31B49 | HF3-49 | HEB400 | 1 | 441.29 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 809 | beam-bracings | 2046HF31B69 | HF3-69 | SHS300*10 | 1 | 751.61 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 21/10/2014 | 05 |
| 810 | beam-bracings | 2046HF31B70 | HF3-70 | SHS300*10 | 1 | 751.61 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 811 | beam-bracings | 2046HF31B71 | HF3-71 | SHS300*10 | 1 | 745.10 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 812 | beam-bracings | 2046HF31B72 | HF3-72 | SHS300*10 | 1 | 742.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 813 | beam-bracings | 2046HF31B73 | HF3-73 | HEB300 | 1 | 318.84 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 814 | beam-bracings | 2046HF31BR66 | HF3-66 | CHS355.6*10.0 | 1 | 564.50 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 815 | beam-bracings | 2046HF31BR67 | HF3-67 | CHS323.9*6.3 | 1 | 234.85 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 816 | beam-bracings | 2046HF31BR68 | HF3-68 | CHS323.9*6.3 | 1 | 234.85 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 817 | beam-bracings | 2046HF31LPL37 | HF3-37 | PL20*390 | 1 | 48.37 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 818 | beam-bracings | 2046HF31LPL38 | HF3-38 | PL20*390 | 1 | 48.37 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 819 | beam-bracings | 2046HF31LPL39 | HF3-39 | PL20*390 | 1 | 48.37 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 820 | beam-bracings | 2046HF31LPL40 | HF3-40 | PL20*390 | 1 | 48.37 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 821 | beam-bracings | 2046HF31LPL41 | HF3-41 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 822 | beam-bracings | 2046HF31LPL42 | HF3-42 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 823 | beam-bracings | 2046HF31LPL43 | HF3-43 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 824 | beam-bracings | 2046HF31LPL44 | HF3-44 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 825 | beam-bracings | 2046HF31LPL45 | HF3-45 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 826 | beam-bracings | 2046HF31LPL46 | HF3-46 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 827 | beam-bracings | 2046HF31LPL47 | HF3-47 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 828 | beam-bracings | 2046HF31LPL48 | HF3-48 | PL15*350 | 1 | 17.72 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 829 | beam-bracings | 2046HF31LPL50 | HF3-50 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 830 | beam-bracings | 2046HF31LPL51 | HF3-51 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 831 | beam-bracings | 2046HF31LPL52 | HF3-52 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 832 | beam-bracings | 2046HF31LPL53 | HF3-53 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 833 | beam-bracings | 2046HF31LPL54 | HF3-54 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 834 | beam-bracings | 2046HF31LPL55 | HF3-55 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 835 | beam-bracings | 2046HF31LPL56 | HF3-56 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 836 | beam-bracings | 2046HF31LPL57 | HF3-57 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 837 | beam-bracings | 2046HF31LPL58 | HF3-58 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 838 | beam-bracings | 2046HF31LPL59 | HF3-59 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 839 | beam-bracings | 2046HF31LPL60 | HF3-60 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 840 | beam-bracings | 2046HF31LPL61 | HF3-61 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 841 | beam-bracings | 2046HF31LPL62 | HF3-62 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 842 | beam-bracings | 2046HF31LPL63 | HF3-63 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 843 | beam-bracings | 2046HF31LPL64 | HF3-64 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 844 | beam-bracings | 2046HF31LPL65 | HF3-65 | PL10*330 | 1 | 11.14 | H | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 845 | beam-bracings | 2046IF31B49 | IF3-49 | HEB400 | 1 | 441.29 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 846 | beam-bracings | 2046IF31B69 | IF3-69 | SHS300*10 | 1 | 751.61 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 847 | beam-bracings | 2046IF31B70 | IF3-70 | SHS300*10 | 1 | 751.61 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 848 | beam-bracings | 2046IF31B71 | IF3-71 | SHS300*10 | 1 | 742.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 849 | beam-bracings | 2046IF31B72 | IF3-72 | SHS300*10 | 1 | 742.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 850 | beam-bracings | 2046IF31B73 | IF3-73 | HEB300 | 1 | 318.84 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 851 | beam-bracings | 2046IF31BR66 | IF3-66 | CHS355.6*10.0 | 1 | 564.50 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 852 | beam-bracings | 2046IF31BR67 | IF3-67 | CHS323.9*6.3 | 1 | 234.85 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 853 | beam-bracings | 2046IF31BR68 | IF3-68 | CHS323.9*6.3 | 1 | 234.85 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 854 | beam-bracings | 2046IF31LPL37 | IF3-37 | PL20*390 | 1 | 48.37 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 855 | beam-bracings | 2046IF31LPL38 | IF3-38 | PL20*390 | 1 | 48.37 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 856 | beam-bracings | 2046IF31LPL39 | IF3-39 | PL20*390 | 1 | 48.37 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 857 | beam-bracings | 2046IF31LPL40 | IF3-40 | PL20*390 | 1 | 48.37 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 858 | beam-bracings | 2046IF31LPL41 | IF3-41 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 859 | beam-bracings | 2046IF31LPL42 | IF3-42 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 860 | beam-bracings | 2046IF31LPL43 | IF3-43 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 861 | beam-bracings | 2046IF31LPL44 | IF3-44 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 862 | beam-bracings | 2046IF31LPL45 | IF3-45 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 863 | beam-bracings | 2046IF31LPL46 | IF3-46 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 864 | beam-bracings | 2046IF31LPL47 | IF3-47 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 865 | beam-bracings | 2046IF31LPL48 | IF3-48 | PL15*350 | 1 | 17.72 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 866 | beam-bracings | 2046IF31LPL50 | IF3-50 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 867 | beam-bracings | 2046IF31LPL51 | IF3-51 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 868 | beam-bracings | 2046IF31LPL52 | IF3-52 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 869 | beam-bracings | 2046IF31LPL53 | IF3-53 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 870 | beam-bracings | 2046IF31LPL54 | IF3-54 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 871 | beam-bracings | 2046IF31LPL55 | IF3-55 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 872 | beam-bracings | 2046IF31LPL56 | IF3-56 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 873 | beam-bracings | 2046IF31LPL57 | IF3-57 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 874 | beam-bracings | 2046IF31LPL58 | IF3-58 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 875 | beam-bracings | 2046IF31LPL59 | IF3-59 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 876 | beam-bracings | 2046IF31LPL60 | IF3-60 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 877 | beam-bracings | 2046IF31LPL61 | IF3-61 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 878 | beam-bracings | 2046IF31LPL62 | IF3-62 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 879 | beam-bracings | 2046IF31LPL63 | IF3-63 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 880 | beam-bracings | 2046IF31LPL64 | IF3-64 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 881 | beam-bracings | 2046IF31LPL65 | IF3-65 | PL10*330 | 1 | 11.14 | I | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 882 | beam-bracings | 2046GF31B49 | GF3-49 | HEB400 | 1 | 441.29 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 883 | beam-bracings | 2046GF31B69 | GF3-69 | SHS300*10 | 1 | 751.61 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 884 | beam-bracings | 2046GF31B70 | GF3-70 | SHS300*10 | 1 | 751.61 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 885 | beam-bracings | 2046GF31B71 | GF3-71 | SHS300*10 | 1 | 742.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 886 | beam-bracings | 2046GF31B72 | GF3-72 | SHS300*10 | 1 | 742.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 17/12/2014 | 19 |
| 887 | beam-bracings | 2046GF31B73 | GF3-73 | HEB300 | 1 | 318.84 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 888 | beam-bracings | 2046GF31BR66 | GF3-66 | CHS355.6*10.0 | 1 | 564.50 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 889 | beam-bracings | 2046GF31BR67 | GF3-67 | CHS323.9*6.3 | 1 | 234.85 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 890 | beam-bracings | 2046GF31BR68 | GF3-68 | CHS323.9*6.3 | 1 | 234.85 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 891 | beam-bracings | 2046GF31LPL37 | GF3-37 | PL20*390 | 1 | 48.37 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 892 | beam-bracings | 2046GF31LPL38 | GF3-38 | PL20*390 | 1 | 48.37 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 893 | beam-bracings | 2046GF31LPL39 | GF3-39 | PL20*390 | 1 | 48.37 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 894 | beam-bracings | 2046GF31LPL40 | GF3-40 | PL20*390 | 1 | 48.37 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 895 | beam-bracings | 2046GF31LPL41 | GF3-41 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 896 | beam-bracings | 2046GF31LPL42 | GF3-42 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 897 | beam-bracings | 2046GF31LPL43 | GF3-43 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 898 | beam-bracings | 2046GF31LPL44 | GF3-44 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 899 | beam-bracings | 2046GF31LPL45 | GF3-45 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 900 | beam-bracings | 2046GF31LPL46 | GF3-46 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 901 | beam-bracings | 2046GF31LPL47 | GF3-47 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 902 | beam-bracings | 2046GF31LPL48 | GF3-48 | PL15*350 | 1 | 17.72 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 903 | beam-bracings | 2046GF31LPL50 | GF3-50 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 904 | beam-bracings | 2046GF31LPL51 | GF3-51 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 905 | beam-bracings | 2046GF31LPL52 | GF3-52 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 906 | beam-bracings | 2046GF31LPL53 | GF3-53 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 907 | beam-bracings | 2046GF31LPL54 | GF3-54 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 908 | beam-bracings | 2046GF31LPL55 | GF3-55 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 909 | beam-bracings | 2046GF31LPL56 | GF3-56 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 910 | beam-bracings | 2046GF31LPL57 | GF3-57 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 911 | beam-bracings | 2046GF31LPL58 | GF3-58 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 912 | beam-bracings | 2046GF31LPL59 | GF3-59 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 913 | beam-bracings | 2046GF31LPL60 | GF3-60 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 914 | beam-bracings | 2046GF31LPL61 | GF3-61 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 915 | beam-bracings | 2046GF31LPL62 | GF3-62 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 916 | beam-bracings | 2046GF31LPL63 | GF3-63 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 917 | beam-bracings | 2046GF31LPL64 | GF3-64 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 918 | beam-bracings | 2046GF31LPL65 | GF3-65 | PL10*330 | 1 | 11.14 | G | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 919 | beam-bracings | 2046FF31B49 | FF3-49 | HEB400 | 1 | 441.29 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 920 | beam-bracings | 2046FF31B69 | FF3-69 | SHS300*10 | 1 | 751.61 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 921 | beam-bracings | 2046FF31B70 | FF3-70 | SHS300*10 | 1 | 751.61 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 922 | beam-bracings | 2046FF31B71 | FF3-71 | SHS300*10 | 1 | 742.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 923 | beam-bracings | 2046FF31B72 | FF3-72 | SHS300*10 | 1 | 742.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 924 | beam-bracings | 2046FF31B73 | FF3-73 | HEB300 | 1 | 318.84 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 925 | beam-bracings | 2046FF31BR66 | FF3-66 | CHS355.6*10.0 | 1 | 564.50 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 926 | beam-bracings | 2046FF31BR67 | FF3-67 | CHS323.9*6.3 | 1 | 234.85 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 927 | beam-bracings | 2046FF31BR68 | FF3-68 | CHS323.9*6.3 | 1 | 234.85 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 928 | beam-bracings | 2046FF31LPL37 | FF3-37 | PL20*390 | 1 | 48.37 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 929 | beam-bracings | 2046FF31LPL38 | FF3-38 | PL20*390 | 1 | 48.37 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 930 | beam-bracings | 2046FF31LPL39 | FF3-39 | PL20*390 | 1 | 48.37 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 931 | beam-bracings | 2046FF31LPL40 | FF3-40 | PL20*390 | 1 | 48.37 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/12/2014 | 18 |
| 932 | beam-bracings | 2046FF31LPL41 | FF3-41 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 933 | beam-bracings | 2046FF31LPL42 | FF3-42 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 934 | beam-bracings | 2046FF31LPL43 | FF3-43 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 935 | beam-bracings | 2046FF31LPL44 | FF3-44 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 936 | beam-bracings | 2046FF31LPL45 | FF3-45 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 937 | beam-bracings | 2046FF31LPL46 | FF3-46 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 938 | beam-bracings | 2046FF31LPL47 | FF3-47 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 939 | beam-bracings | 2046FF31LPL48 | FF3-48 | PL15*350 | 1 | 17.72 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 940 | beam-bracings | 2046FF31LPL50 | FF3-50 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 941 | beam-bracings | 2046FF31LPL51 | FF3-51 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 942 | beam-bracings | 2046FF31LPL52 | FF3-52 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 943 | beam-bracings | 2046FF31LPL53 | FF3-53 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 944 | beam-bracings | 2046FF31LPL54 | FF3-54 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 945 | beam-bracings | 2046FF31LPL55 | FF3-55 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 946 | beam-bracings | 2046FF31LPL56 | FF3-56 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 947 | beam-bracings | 2046FF31LPL57 | FF3-57 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 948 | beam-bracings | 2046FF31LPL58 | FF3-58 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 949 | beam-bracings | 2046FF31LPL59 | FF3-59 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 950 | beam-bracings | 2046FF31LPL60 | FF3-60 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 951 | beam-bracings | 2046FF31LPL61 | FF3-61 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 952 | beam-bracings | 2046FF31LPL62 | FF3-62 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 953 | beam-bracings | 2046FF31LPL63 | FF3-63 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 954 | beam-bracings | 2046FF31LPL64 | FF3-64 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 955 | beam-bracings | 2046FF31LPL65 | FF3-65 | PL10*330 | 1 | 11.14 | F | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 956 | beam-bracings | 2046EF31B49 | EF3-49 | HEB400 | 1 | 441.29 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 957 | beam-bracings | 2046EF31B69 | EF3-69 | SHS300*10 | 1 | 751.61 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 958 | beam-bracings | 2046EF31B70 | EF3-70 | SHS300*10 | 1 | 751.61 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 959 | beam-bracings | 2046EF31B71 | EF3-71 | SHS300*10 | 1 | 742.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 960 | beam-bracings | 2046EF31B72 | EF3-72 | SHS300*10 | 1 | 742.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 961 | beam-bracings | 2046EF31B73 | EF3-73 | HEB300 | 1 | 318.84 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 962 | beam-bracings | 2046EF31BR66 | EF3-66 | CHS355.6*10.0 | 1 | 564.50 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 963 | beam-bracings | 2046EF31BR67 | EF3-67 | CHS323.9*6.3 | 1 | 234.85 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 964 | beam-bracings | 2046EF31BR68 | EF3-68 | CHS323.9*6.3 | 1 | 234.85 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 965 | beam-bracings | 2046EF31LPL37 | EF3-37 | PL20*390 | 1 | 48.37 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 966 | beam-bracings | 2046EF31LPL38 | EF3-38 | PL20*390 | 1 | 48.37 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 967 | beam-bracings | 2046EF31LPL39 | EF3-39 | PL20*390 | 1 | 48.37 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 968 | beam-bracings | 2046EF31LPL40 | EF3-40 | PL20*390 | 1 | 48.37 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 969 | beam-bracings | 2046EF31LPL41 | EF3-41 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 970 | beam-bracings | 2046EF31LPL42 | EF3-42 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 971 | beam-bracings | 2046EF31LPL43 | EF3-43 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 972 | beam-bracings | 2046EF31LPL44 | EF3-44 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 973 | beam-bracings | 2046EF31LPL45 | EF3-45 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 974 | beam-bracings | 2046EF31LPL46 | EF3-46 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 975 | beam-bracings | 2046EF31LPL47 | EF3-47 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 976 | beam-bracings | 2046EF31LPL48 | EF3-48 | PL15*350 | 1 | 17.72 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 03/12/2014 | 17 |
| 977 | beam-bracings | 2046EF31LPL50 | EF3-50 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 978 | beam-bracings | 2046EF31LPL51 | EF3-51 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 979 | beam-bracings | 2046EF31LPL52 | EF3-52 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 980 | beam-bracings | 2046EF31LPL53 | EF3-53 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 981 | beam-bracings | 2046EF31LPL54 | EF3-54 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 982 | beam-bracings | 2046EF31LPL55 | EF3-55 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 983 | beam-bracings | 2046EF31LPL56 | EF3-56 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 984 | beam-bracings | 2046EF31LPL57 | EF3-57 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 985 | beam-bracings | 2046EF31LPL58 | EF3-58 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 986 | beam-bracings | 2046EF31LPL59 | EF3-59 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 987 | beam-bracings | 2046EF31LPL60 | EF3-60 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 988 | beam-bracings | 2046EF31LPL61 | EF3-61 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 989 | beam-bracings | 2046EF31LPL62 | EF3-62 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 990 | beam-bracings | 2046EF31LPL63 | EF3-63 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 991 | beam-bracings | 2046EF31LPL64 | EF3-64 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 992 | beam-bracings | 2046EF31LPL65 | EF3-65 | PL10*330 | 1 | 11.14 | E | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 993 | beam-bracings | 2046DF31B49 | DF3-49 | HEB400 | 1 | 441.29 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 994 | beam-bracings | 2046DF31B69 | DF3-69 | SHS300*10 | 1 | 740.80 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 995 | beam-bracings | 2046DF31B70 | DF3-70 | SHS300*10 | 1 | 740.80 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 21/10/2014 | 05 |
| 996 | beam-bracings | 2046DF31B71 | DF3-71 | SHS300*10 | 1 | 751.61 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 21/10/2014 | 05 |
| 997 | beam-bracings | 2046DF31B72 | DF3-72 | SHS300*10 | 1 | 751.61 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 998 | beam-bracings | 2046DF31B73 | DF3-73 | HEB300 | 1 | 318.84 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 999 | beam-bracings | 2046DF31BR66 | DF3-66 | CHS355.6*10.0 | 1 | 564.50 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1000 | beam-bracings | 2046DF31BR67 | DF3-67 | CHS323.9*6.3 | 1 | 274.64 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 13/05/2015 | 84 |
| 1001 | beam-bracings | 2046DF31BR68 | DF3-68 | CHS323.9*6.3 | 1 | 234.85 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 12 |
| 1002 | beam-bracings | 2046DF31LPL37 | DF3-37 | PL20*390 | 1 | 48.37 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1003 | beam-bracings | 2046DF31LPL38 | DF3-38 | PL20*390 | 1 | 48.37 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1004 | beam-bracings | 2046DF31LPL39 | DF3-39 | PL20*390 | 1 | 48.37 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1005 | beam-bracings | 2046DF31LPL40 | DF3-40 | PL20*390 | 1 | 48.37 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1006 | beam-bracings | 2046DF31LPL41 | DF3-41 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14/74 |
| 1007 | beam-bracings | 2046DF31LPL42 | DF3-42 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15/74 |
| 1008 | beam-bracings | 2046DF31LPL43 | DF3-43 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1009 | beam-bracings | 2046DF31LPL44 | DF3-44 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1010 | beam-bracings | 2046DF31LPL45 | DF3-45 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16/74 |
| 1011 | beam-bracings | 2046DF31LPL46 | DF3-46 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16/74 |
| 1012 | beam-bracings | 2046DF31LPL47 | DF3-47 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1013 | beam-bracings | 2046DF31LPL48 | DF3-48 | PL15*350 | 1 | 17.72 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1014 | beam-bracings | 2046DF31LPL50 | DF3-50 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1015 | beam-bracings | 2046DF31LPL51 | DF3-51 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1016 | beam-bracings | 2046DF31LPL52 | DF3-52 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1017 | beam-bracings | 2046DF31LPL53 | DF3-53 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1018 | beam-bracings | 2046DF31LPL54 | DF3-54 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1019 | beam-bracings | 2046DF31LPL55 | DF3-55 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1020 | beam-bracings | 2046DF31LPL56 | DF3-56 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1021 | beam-bracings | 2046DF31LPL57 | DF3-57 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1022 | beam-bracings | 2046DF31LPL58 | DF3-58 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1023 | beam-bracings | 2046DF31LPL59 | DF3-59 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1024 | beam-bracings | 2046DF31LPL60 | DF3-60 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1025 | beam-bracings | 2046DF31LPL61 | DF3-61 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1026 | beam-bracings | 2046DF31LPL62 | DF3-62 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1027 | beam-bracings | 2046DF31LPL63 | DF3-63 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1028 | beam-bracings | 2046DF31LPL64 | DF3-64 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1029 | beam-bracings | 2046DF31LPL65 | DF3-65 | PL10*330 | 1 | 11.14 | D | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1030 | beam-bracings | 2046CF31B49 | CF3-49 | HEB400 | 1 | 441.29 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1031 | beam-bracings | 2046CF31B81 | CF3-81 | SHS300*10 | 1 | 749.83 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1032 | beam-bracings | 2046CF31B82 | CF3-82 | SHS300*10 | 1 | 746.82 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1033 | beam-bracings | 2046CF31B83 | CF3-83 | SHS300*10 | 1 | 720.11 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 1034 | beam-bracings | 2046CF31B84 | CF3-84 | SHS300*10 | 1 | 719.37 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1035 | beam-bracings | 2046CF31B85 | CF3-85 | HEB300 | 1 | 318.96 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1036 | beam-bracings | 2046CF31BR66 | CF3-66 | CHS355.6*10.0 | 1 | 564.50 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1037 | beam-bracings | 2046CF31BR67 | CF3-67 | CHS323.9*6.3 | 1 | 300.77 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1038 | beam-bracings | 2046CF31BR68 | CF3-68 | CHS323.9*6.3 | 1 | 300.64 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1039 | beam-bracings | 2046CF31BR69 | CF3-69 | CHS323.9*6.3 | 1 | 300.77 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1040 | beam-bracings | 2046CF31BR70 | CF3-70 | CHS323.9*6.3 | 1 | 309.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1041 | beam-bracings | 2046CF31BR71 | CF3-71 | CHS323.9*6.3 | 1 | 669.18 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1042 | beam-bracings | 2046CF31BR72 | CF3-72 | CHS323.9*6.3 | 1 | 673.63 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1043 | beam-bracings | 2046CF31BR73 | CF3-73 | CHS323.9*6.3 | 1 | 636.37 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1044 | beam-bracings | 2046CF31BR74 | CF3-74 | CHS323.9*6.3 | 1 | 269.53 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 1045 | beam-bracings | 2046CF31BR75 | CF3-75 | CHS323.9*6.3 | 1 | 269.53 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1046 | beam-bracings | 2046CF31BR76 | CF3-76 | CHS323.9*6.3 | 1 | 234.85 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1047 | beam-bracings | 2046CF31BR77 | CF3-77 | CHS323.9*6.3 | 1 | 234.85 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1048 | beam-bracings | 2046CF31BR78 | CF3-78 | CHS323.9*6.3 | 1 | 652.63 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1049 | beam-bracings | 2046CF31BR79 | CF3-79 | CHS323.9*6.3 | 1 | 292.49 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1050 | beam-bracings | 2046CF31BR80 | CF3-80 | CHS323.9*6.3 | 1 | 292.49 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1051 | beam-bracings | 2046CF31LPL37 | CF3-37 | PL20*390 | 1 | 48.37 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1052 | beam-bracings | 2046CF31LPL38 | CF3-38 | PL20*390 | 1 | 48.37 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1053 | beam-bracings | 2046CF31LPL39 | CF3-39 | PL20*390 | 1 | 48.37 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1054 | beam-bracings | 2046CF31LPL40 | CF3-40 | PL20*390 | 1 | 48.37 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1055 | beam-bracings | 2046CF31LPL41 | CF3-41 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1056 | beam-bracings | 2046CF31LPL42 | CF3-42 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1057 | beam-bracings | 2046CF31LPL43 | CF3-43 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1058 | beam-bracings | 2046CF31LPL44 | CF3-44 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1059 | beam-bracings | 2046CF31LPL45 | CF3-45 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1060 | beam-bracings | 2046CF31LPL46 | CF3-46 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1061 | beam-bracings | 2046CF31LPL47 | CF3-47 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1062 | beam-bracings | 2046CF31LPL48 | CF3-48 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1063 | beam-bracings | 2046CF31LPL50 | CF3-50 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1064 | beam-bracings | 2046CF31LPL51 | CF3-51 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1065 | beam-bracings | 2046CF31LPL52 | CF3-52 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1066 | beam-bracings | 2046CF31LPL53 | CF3-53 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1067 | beam-bracings | 2046CF31LPL54 | CF3-54 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1068 | beam-bracings | 2046CF31LPL55 | CF3-55 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1069 | beam-bracings | 2046CF31LPL56 | CF3-56 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1070 | beam-bracings | 2046CF31LPL57 | CF3-57 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1071 | beam-bracings | 2046CF31LPL58 | CF3-58 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1072 | beam-bracings | 2046CF31LPL59 | CF3-59 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1073 | beam-bracings | 2046CF31LPL60 | CF3-60 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1074 | beam-bracings | 2046CF31LPL61 | CF3-61 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1075 | beam-bracings | 2046CF31LPL62 | CF3-62 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1076 | beam-bracings | 2046CF31LPL63 | CF3-63 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1077 | beam-bracings | 2046CF31LPL64 | CF3-64 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1078 | beam-bracings | 2046CF31LPL65 | CF3-65 | PL10*330 | 1 | 11.14 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1079 | beam-bracings | 2046CF31LPL86 | CF3-86 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1080 | beam-bracings | 2046CF31LPL87 | CF3-87 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1081 | beam-bracings | 2046CF31LPL88 | CF3-88 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1082 | beam-bracings | 2046CF31LPL89 | CF3-89 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1083 | beam-bracings | 2046CF31LPL90 | CF3-90 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1084 | beam-bracings | 2046CF31LPL91 | CF3-91 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1085 | beam-bracings | 2046CF31LPL92 | CF3-92 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1086 | beam-bracings | 2046CF31LPL93 | CF3-93 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1087 | beam-bracings | 2046CF31LPL94 | CF3-94 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1088 | beam-bracings | 2046CF31LPL95 | CF3-95 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1089 | beam-bracings | 2046CF31LPL96 | CF3-96 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1090 | beam-bracings | 2046CF31LPL97 | CF3-97 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1091 | beam-bracings | 2046CF31LPL98 | CF3-98 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1092 | beam-bracings | 2046CF31LPL99 | CF3-99 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1093 | beam-bracings | 2046CF31LPL100 | CF3-100 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1094 | beam-bracings | 2046CF31LPL101 | CF3-101 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1095 | beam-bracings | 2046CF31LPL102 | CF3-102 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1096 | beam-bracings | 2046CF31LPL103 | CF3-103 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1097 | beam-bracings | 2046CF31LPL104 | CF3-104 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1098 | beam-bracings | 2046CF31LPL105 | CF3-105 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1099 | beam-bracings | 2046CF31LPL106 | CF3-106 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1100 | beam-bracings | 2046CF31LPL107 | CF3-107 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1101 | beam-bracings | 2046CF31LPL108 | CF3-108 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1102 | beam-bracings | 2046CF31LPL109 | CF3-109 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1103 | beam-bracings | 2046CF31LPL110 | CF3-110 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1104 | beam-bracings | 2046CF31LPL111 | CF3-111 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1105 | beam-bracings | 2046CF31LPL112 | CF3-112 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1106 | beam-bracings | 2046CF31LPL113 | CF3-113 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1107 | beam-bracings | 2046CF31LPL114 | CF3-114 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 02/02/2015 | 30 |
| 1108 | beam-bracings | 2046CF31LPL115 | CF3-115 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 1109 | beam-bracings | 2046CF31LPL116 | CF3-116 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 02/02/2015 | 30 |
| 1110 | beam-bracings | 2046CF31LPL117 | CF3-117 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1111 | beam-bracings | 2046CF31LPL118 | CF3-118 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1112 | beam-bracings | 2046CF31LPL119 | CF3-119 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1113 | beam-bracings | 2046CF31LPL120 | CF3-120 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1114 | beam-bracings | 2046CF31LPL121 | CF3-121 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1115 | beam-bracings | 2046CF31LPL122 | CF3-122 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1116 | beam-bracings | 2046CF31LPL123 | CF3-123 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1117 | beam-bracings | 2046CF31LPL124 | CF3-124 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1118 | beam-bracings | 2046CF31LPL125 | CF3-125 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1119 | beam-bracings | 2046CF31LPL126 | CF3-126 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1120 | beam-bracings | 2046CF31LPL127 | CF3-127 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1121 | beam-bracings | 2046CF31LPL128 | CF3-128 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1122 | beam-bracings | 2046CF31LPL129 | CF3-129 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1123 | beam-bracings | 2046CF31LPL130 | CF3-130 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1124 | beam-bracings | 2046CF31LPL131 | CF3-131 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1125 | beam-bracings | 2046CF31LPL132 | CF3-132 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1126 | beam-bracings | 2046CF31LPL133 | CF3-133 | PL15*350 | 1 | 17.72 | C | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 06/03/2015 | 47 |
| 1127 | beam-bracings | 2046BF31B49 | BF3-49 | HEB400 | 1 | 441.29 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 1128 | beam-bracings | 2046BF31B81 | BF3-81 | SHS300*10 | 1 | 746.87 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1129 | beam-bracings | 2046BF31B82 | BF3-82 | SHS300*10 | 1 | 746.82 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1130 | beam-bracings | 2046BF31B83 | BF3-83 | SHS300*10 | 1 | 720.11 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1131 | beam-bracings | 2046BF31B84 | BF3-84 | SHS300*10 | 1 | 719.37 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1132 | beam-bracings | 2046BF31B85 | BF3-85 | HEB300 | 1 | 318.84 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1133 | beam-bracings | 2046BF31BR66 | BF3-66 | CHS355.6*10.0 | 1 | 564.50 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1134 | beam-bracings | 2046BF31BR67 | BF3-67 | CHS323.9*6.3 | 1 | 300.77 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1135 | beam-bracings | 2046BF31BR68 | BF3-68 | CHS323.9*6.3 | 1 | 300.64 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1136 | beam-bracings | 2046BF31BR69 | BF3-69 | CHS323.9*6.3 | 1 | 300.77 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1137 | beam-bracings | 2046BF31BR70 | BF3-70 | CHS323.9*6.3 | 1 | 309.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 1138 | beam-bracings | 2046BF31BR71 | BF3-71 | CHS323.9*6.3 | 1 | 669.18 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 1139 | beam-bracings | 2046BF31BR72 | BF3-72 | CHS323.9*6.3 | 1 | 673.63 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1140 | beam-bracings | 2046BF31BR73 | BF3-73 | CHS323.9*6.3 | 1 | 234.85 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1141 | beam-bracings | 2046BF31BR74 | BF3-74 | CHS323.9*6.3 | 1 | 234.85 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1142 | beam-bracings | 2046BF31BR75 | BF3-75 | CHS323.9*6.3 | 1 | 652.63 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1143 | beam-bracings | 2046BF31BR76 | BF3-76 | CHS323.9*6.3 | 1 | 292.49 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1144 | beam-bracings | 2046BF31BR77 | BF3-77 | CHS323.9*6.3 | 1 | 292.49 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1145 | beam-bracings | 2046BF31BR78 | BF3-78 | CHS323.9*6.3 | 1 | 636.37 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1146 | beam-bracings | 2046BF31BR79 | BF3-79 | CHS323.9*6.3 | 1 | 269.53 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1147 | beam-bracings | 2046BF31BR80 | BF3-80 | CHS323.9*6.3 | 1 | 269.53 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1148 | beam-bracings | 2046BF31LPL37 | BF3-37 | PL20*390 | 1 | 48.37 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1149 | beam-bracings | 2046BF31LPL38 | BF3-38 | PL20*390 | 1 | 48.37 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1150 | beam-bracings | 2046BF31LPL39 | BF3-39 | PL20*390 | 1 | 48.37 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1151 | beam-bracings | 2046BF31LPL40 | BF3-40 | PL20*390 | 1 | 48.37 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1152 | beam-bracings | 2046BF31LPL41 | BF3-41 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1153 | beam-bracings | 2046BF31LPL42 | BF3-42 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1154 | beam-bracings | 2046BF31LPL43 | BF3-43 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1155 | beam-bracings | 2046BF31LPL44 | BF3-44 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1156 | beam-bracings | 2046BF31LPL45 | BF3-45 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1157 | beam-bracings | 2046BF31LPL46 | BF3-46 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1158 | beam-bracings | 2046BF31LPL47 | BF3-47 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1159 | beam-bracings | 2046BF31LPL48 | BF3-48 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1160 | beam-bracings | 2046BF31LPL50 | BF3-50 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1161 | beam-bracings | 2046BF31LPL51 | BF3-51 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1162 | beam-bracings | 2046BF31LPL52 | BF3-52 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1163 | beam-bracings | 2046BF31LPL53 | BF3-53 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1164 | beam-bracings | 2046BF31LPL54 | BF3-54 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1165 | beam-bracings | 2046BF31LPL55 | BF3-55 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1166 | beam-bracings | 2046BF31LPL56 | BF3-56 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1167 | beam-bracings | 2046BF31LPL57 | BF3-57 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1168 | beam-bracings | 2046BF31LPL58 | BF3-58 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1169 | beam-bracings | 2046BF31LPL59 | BF3-59 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1170 | beam-bracings | 2046BF31LPL60 | BF3-60 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1171 | beam-bracings | 2046BF31LPL61 | BF3-61 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1172 | beam-bracings | 2046BF31LPL62 | BF3-62 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1173 | beam-bracings | 2046BF31LPL63 | BF3-63 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1174 | beam-bracings | 2046BF31LPL64 | BF3-64 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1175 | beam-bracings | 2046BF31LPL65 | BF3-65 | PL10*330 | 1 | 11.14 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/07/2015 | 155 |
| 1176 | beam-bracings | 2046BF31LPL86 | BF3-86 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1177 | beam-bracings | 2046BF31LPL87 | BF3-87 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1178 | beam-bracings | 2046BF31LPL88 | BF3-88 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1179 | beam-bracings | 2046BF31LPL89 | BF3-89 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1180 | beam-bracings | 2046BF31LPL90 | BF3-90 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1181 | beam-bracings | 2046BF31LPL91 | BF3-91 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1182 | beam-bracings | 2046BF31LPL92 | BF3-92 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1183 | beam-bracings | 2046BF31LPL93 | BF3-93 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1184 | beam-bracings | 2046BF31LPL94 | BF3-94 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1185 | beam-bracings | 2046BF31LPL95 | BF3-95 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1186 | beam-bracings | 2046BF31LPL96 | BF3-96 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1187 | beam-bracings | 2046BF31LPL97 | BF3-97 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1188 | beam-bracings | 2046BF31LPL98 | BF3-98 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1189 | beam-bracings | 2046BF31LPL99 | BF3-99 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1190 | beam-bracings | 2046BF31LPL100 | BF3-100 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1191 | beam-bracings | 2046BF31LPL101 | BF3-101 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1192 | beam-bracings | 2046BF31LPL102 | BF3-102 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1193 | beam-bracings | 2046BF31LPL103 | BF3-103 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1194 | beam-bracings | 2046BF31LPL104 | BF3-104 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1195 | beam-bracings | 2046BF31LPL105 | BF3-105 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1196 | beam-bracings | 2046BF31LPL106 | BF3-106 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1197 | beam-bracings | 2046BF31LPL107 | BF3-107 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1198 | beam-bracings | 2046BF31LPL108 | BF3-108 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1199 | beam-bracings | 2046BF31LPL109 | BF3-109 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1200 | beam-bracings | 2046BF31LPL110 | BF3-110 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1201 | beam-bracings | 2046BF31LPL111 | BF3-111 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1202 | beam-bracings | 2046BF31LPL112 | BF3-112 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 28/01/2015 | 28 |
| 1203 | beam-bracings | 2046BF31LPL113 | BF3-113 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 28/01/2015 | 28 |
| 1204 | beam-bracings | 2046BF31LPL114 | BF3-114 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1205 | beam-bracings | 2046BF31LPL115 | BF3-115 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 28/01/2015 | 28 |
| 1206 | beam-bracings | 2046BF31LPL116 | BF3-116 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1207 | beam-bracings | 2046BF31LPL117 | BF3-117 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1208 | beam-bracings | 2046BF31LPL118 | BF3-118 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 28/01/2015 | 28 |
| 1209 | beam-bracings | 2046BF31LPL119 | BF3-119 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 28/01/2015 | 28 |
| 1210 | beam-bracings | 2046BF31LPL120 | BF3-120 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1211 | beam-bracings | 2046BF31LPL121 | BF3-121 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1212 | beam-bracings | 2046BF31LPL122 | BF3-122 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1213 | beam-bracings | 2046BF31LPL123 | BF3-123 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1214 | beam-bracings | 2046BF31LPL124 | BF3-124 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1215 | beam-bracings | 2046BF31LPL125 | BF3-125 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1216 | beam-bracings | 2046BF31LPL126 | BF3-126 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1217 | beam-bracings | 2046BF31LPL127 | BF3-127 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1218 | beam-bracings | 2046BF31LPL128 | BF3-128 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1219 | beam-bracings | 2046BF31LPL129 | BF3-129 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1220 | beam-bracings | 2046BF31LPL130 | BF3-130 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1221 | beam-bracings | 2046BF31LPL131 | BF3-131 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1222 | beam-bracings | 2046BF31LPL132 | BF3-132 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1223 | beam-bracings | 2046BF31LPL133 | BF3-133 | PL15*350 | 1 | 17.72 | B | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1224 | beam-bracings | 2046AF31B97 | AF3-97 | HEB400 | 1 | 441.29 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1225 | beam-bracings | 2046AF31B98 | AF3-98 | HEB400 | 1 | 441.29 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1226 | beam-bracings | 2046AF31B133 | AF3-133 | SHS300*10 | 1 | 719.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1227 | beam-bracings | 2046AF31B134 | AF3-134 | SHS300*10 | 1 | 746.82 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1228 | beam-bracings | 2046AF31B135 | AF3-135 | SHS300*10 | 1 | 746.87 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1229 | beam-bracings | 2046AF31B136 | AF3-136 | SHS300*10 | 1 | 720.11 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1230 | beam-bracings | 2046AF31B137 | AF3-137 | HEB300 | 1 | 318.84 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1231 | beam-bracings | 2046AF31B138 | AF3-138 | HEB300 | 1 | 318.84 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/02/2015 | 31 |
| 1232 | beam-bracings | 2046AF31BR115 | AF3-115 | CHS355.6*10.0 | 1 | 564.50 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1233 | beam-bracings | 2046AF31BR116 | AF3-116 | CHS355.6*10.0 | 1 | 564.50 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1234 | beam-bracings | 2046AF31BR117 | AF3-117 | CHS323.9*6.3 | 1 | 300.77 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1235 | beam-bracings | 2046AF31BR118 | AF3-118 | CHS323.9*6.3 | 1 | 309.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1236 | beam-bracings | 2046AF31BR119 | AF3-119 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1237 | beam-bracings | 2046AF31BR120 | AF3-120 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1238 | beam-bracings | 2046AF31BR121 | AF3-121 | CHS323.9*6.3 | 1 | 269.53 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1239 | beam-bracings | 2046AF31BR122 | AF3-122 | CHS323.9*6.3 | 1 | 292.49 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1240 | beam-bracings | 2046AF31BR123 | AF3-123 | CHS323.9*6.3 | 1 | 292.49 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 10/11/2014 | 11 |
| 1241 | beam-bracings | 2046AF31BR124 | AF3-124 | CHS323.9*6.3 | 1 | 636.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1242 | beam-bracings | 2046AF31BR125 | AF3-125 | CHS323.9*6.3 | 1 | 269.53 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1243 | beam-bracings | 2046AF31BR126 | AF3-126 | CHS323.9*6.3 | 1 | 300.64 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1244 | beam-bracings | 2046AF31BR127 | AF3-127 | CHS323.9*6.3 | 1 | 673.63 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1245 | beam-bracings | 2046AF31BR128 | AF3-128 | CHS323.9*6.3 | 1 | 300.77 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1246 | beam-bracings | 2046AF31BR129 | AF3-129 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 31/10/2014 | 09 |
| 1247 | beam-bracings | 2046AF31BR130 | AF3-130 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 29/10/2014 | 08 |
| 1248 | beam-bracings | 2046AF31BR131 | AF3-131 | CHS323.9*6.3 | 1 | 669.18 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1249 | beam-bracings | 2046AF31BR132 | AF3-132 | CHS323.9*6.3 | 1 | 652.63 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 23/10/2014 | 06 |
| 1250 | beam-bracings | 2046AF31LPL73 | AF3-73 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1251 | beam-bracings | 2046AF31LPL74 | AF3-74 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1252 | beam-bracings | 2046AF31LPL75 | AF3-75 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1253 | beam-bracings | 2046AF31LPL76 | AF3-76 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1254 | beam-bracings | 2046AF31LPL77 | AF3-77 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1255 | beam-bracings | 2046AF31LPL78 | AF3-78 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1256 | beam-bracings | 2046AF31LPL79 | AF3-79 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1257 | beam-bracings | 2046AF31LPL80 | AF3-80 | PL20*390 | 1 | 48.37 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1258 | beam-bracings | 2046AF31LPL81 | AF3-81 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1259 | beam-bracings | 2046AF31LPL82 | AF3-82 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1260 | beam-bracings | 2046AF31LPL83 | AF3-83 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1261 | beam-bracings | 2046AF31LPL84 | AF3-84 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1262 | beam-bracings | 2046AF31LPL85 | AF3-85 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1263 | beam-bracings | 2046AF31LPL86 | AF3-86 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1264 | beam-bracings | 2046AF31LPL87 | AF3-87 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1265 | beam-bracings | 2046AF31LPL88 | AF3-88 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1266 | beam-bracings | 2046AF31LPL89 | AF3-89 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1267 | beam-bracings | 2046AF31LPL90 | AF3-90 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1268 | beam-bracings | 2046AF31LPL91 | AF3-91 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1269 | beam-bracings | 2046AF31LPL92 | AF3-92 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1270 | beam-bracings | 2046AF31LPL93 | AF3-93 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1271 | beam-bracings | 2046AF31LPL94 | AF3-94 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1272 | beam-bracings | 2046AF31LPL95 | AF3-95 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1273 | beam-bracings | 2046AF31LPL96 | AF3-96 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1274 | beam-bracings | 2046AF31LPL99 | AF3-99 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1275 | beam-bracings | 2046AF31LPL100 | AF3-100 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1276 | beam-bracings | 2046AF31LPL101 | AF3-101 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1277 | beam-bracings | 2046AF31LPL102 | AF3-102 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1278 | beam-bracings | 2046AF31LPL103 | AF3-103 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1279 | beam-bracings | 2046AF31LPL104 | AF3-104 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1280 | beam-bracings | 2046AF31LPL105 | AF3-105 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1281 | beam-bracings | 2046AF31LPL106 | AF3-106 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1282 | beam-bracings | 2046AF31LPL107 | AF3-107 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1283 | beam-bracings | 2046AF31LPL108 | AF3-108 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1284 | beam-bracings | 2046AF31LPL109 | AF3-109 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1285 | beam-bracings | 2046AF31LPL110 | AF3-110 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/08/2015 | 166 |
| 1286 | beam-bracings | 2046AF31LPL111 | AF3-111 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1287 | beam-bracings | 2046AF31LPL112 | AF3-112 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1288 | beam-bracings | 2046AF31LPL113 | AF3-113 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/10/2014 | 07 |
| 1289 | beam-bracings | 2046AF31LPL114 | AF3-114 | PL10*330 | 1 | 11.14 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1290 | beam-bracings | 2046AF31LPL139 | AF3-139 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1291 | beam-bracings | 2046AF31LPL140 | AF3-140 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1292 | beam-bracings | 2046AF31LPL141 | AF3-141 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1293 | beam-bracings | 2046AF31LPL142 | AF3-142 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1294 | beam-bracings | 2046AF31LPL143 | AF3-143 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1295 | beam-bracings | 2046AF31LPL144 | AF3-144 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1296 | beam-bracings | 2046AF31LPL145 | AF3-145 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1297 | beam-bracings | 2046AF31LPL146 | AF3-146 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1298 | beam-bracings | 2046AF31LPL147 | AF3-147 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1299 | beam-bracings | 2046AF31LPL148 | AF3-148 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1300 | beam-bracings | 2046AF31LPL149 | AF3-149 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1301 | beam-bracings | 2046AF31LPL150 | AF3-150 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1302 | beam-bracings | 2046AF31LPL151 | AF3-151 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1303 | beam-bracings | 2046AF31LPL152 | AF3-152 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1304 | beam-bracings | 2046AF31LPL153 | AF3-153 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1305 | beam-bracings | 2046AF31LPL154 | AF3-154 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1306 | beam-bracings | 2046AF31LPL155 | AF3-155 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1307 | beam-bracings | 2046AF31LPL156 | AF3-156 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1308 | beam-bracings | 2046AF31LPL157 | AF3-157 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1309 | beam-bracings | 2046AF31LPL158 | AF3-158 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1310 | beam-bracings | 2046AF31LPL159 | AF3-159 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1311 | beam-bracings | 2046AF31LPL160 | AF3-160 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1312 | beam-bracings | 2046AF31LPL161 | AF3-161 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1313 | beam-bracings | 2046AF31LPL162 | AF3-162 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1314 | beam-bracings | 2046AF31LPL163 | AF3-163 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1315 | beam-bracings | 2046AF31LPL164 | AF3-164 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1316 | beam-bracings | 2046AF31LPL165 | AF3-165 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1317 | beam-bracings | 2046AF31LPL166 | AF3-166 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1318 | beam-bracings | 2046AF31LPL167 | AF3-167 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1319 | beam-bracings | 2046AF31LPL168 | AF3-168 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1320 | beam-bracings | 2046AF31LPL169 | AF3-169 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1321 | beam-bracings | 2046AF31LPL170 | AF3-170 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1322 | beam-bracings | 2046AF31LPL171 | AF3-171 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1323 | beam-bracings | 2046AF31LPL172 | AF3-172 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 24/11/2014 | 14 |
| 1324 | beam-bracings | 2046AF31LPL173 | AF3-173 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1325 | beam-bracings | 2046AF31LPL174 | AF3-174 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1326 | beam-bracings | 2046AF31LPL175 | AF3-175 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1327 | beam-bracings | 2046AF31LPL176 | AF3-176 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1328 | beam-bracings | 2046AF31LPL177 | AF3-177 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1329 | beam-bracings | 2046AF31LPL178 | AF3-178 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1330 | beam-bracings | 2046AF31LPL179 | AF3-179 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1331 | beam-bracings | 2046AF31LPL180 | AF3-180 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 14/11/2014 | 13 |
| 1332 | beam-bracings | 2046AF31LPL181 | AF3-181 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1333 | beam-bracings | 2046AF31LPL182 | AF3-182 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1334 | beam-bracings | 2046AF31LPL183 | AF3-183 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1335 | beam-bracings | 2046AF31LPL184 | AF3-184 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 04/11/2014 | 10 |
| 1336 | beam-bracings | 2046AF31LPL185 | AF3-185 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 01/12/2014 | 16 |
| 1337 | beam-bracings | 2046AF31LPL186 | AF3-186 | PL15*350 | 1 | 17.72 | A | 3 | 13.3-13.4 | Without Intumescent | Portugal | 25/06/2014 | 27/11/2014 | 15 |
| 1338 | beam-bracings | 2046JF14B58 | JF1-58 | SHS300*10 | 1 | 742.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1339 | beam-bracings | 2046JF14B59 | JF1-59 | SHS300*10 | 1 | 742.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1340 | beam-bracings | 2046JF14B60 | JF1-60 | SHS300*10 | 1 | 751.61 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1341 | beam-bracings | 2046JF14B61 | JF1-61 | SHS300*10 | 1 | 751.61 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 09/01/2015 | 21 |
| 1342 | beam-bracings | 2046JF14B62 | JF1-62 | HEB300 | 1 | 329.69 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1343 | beam-bracings | 2046JF14B63 | JF1-63 | HEB300 | 1 | 349.32 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 17/12/2014 | 19 |
| 1344 | beam-bracings | 2046JF14BR57 | JF1-57 | CHS355.6*10.0 | 1 | 515.44 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 12 |
| 1345 | beam-bracings | 2046JF14LPL37 | JF1-37 | PL20*390 | 1 | 48.37 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1346 | beam-bracings | 2046JF14LPL38 | JF1-38 | PL20*390 | 1 | 48.37 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1347 | beam-bracings | 2046JF14LPL39 | JF1-39 | PL20*390 | 1 | 48.37 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1348 | beam-bracings | 2046JF14LPL40 | JF1-40 | PL20*390 | 1 | 48.37 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1349 | beam-bracings | 2046JF14LPL41 | JF1-41 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1350 | beam-bracings | 2046JF14LPL42 | JF1-42 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1351 | beam-bracings | 2046JF14LPL43 | JF1-43 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1352 | beam-bracings | 2046JF14LPL44 | JF1-44 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1353 | beam-bracings | 2046JF14LPL45 | JF1-45 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1354 | beam-bracings | 2046JF14LPL46 | JF1-46 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1355 | beam-bracings | 2046JF14LPL47 | JF1-47 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1356 | beam-bracings | 2046JF14LPL48 | JF1-48 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1357 | beam-bracings | 2046JF14LPL49 | JF1-49 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1358 | beam-bracings | 2046JF14LPL50 | JF1-50 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1359 | beam-bracings | 2046JF14LPL51 | JF1-51 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1360 | beam-bracings | 2046JF14LPL52 | JF1-52 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1361 | beam-bracings | 2046JF14LPL53 | JF1-53 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1362 | beam-bracings | 2046JF14LPL54 | JF1-54 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1363 | beam-bracings | 2046JF14LPL55 | JF1-55 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1364 | beam-bracings | 2046JF14LPL56 | JF1-56 | PL10*330 | 1 | 11.14 | J | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1365 | beam-bracings | 2046IF14B47 | IF1-47 | SHS300*10 | 1 | 742.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1366 | beam-bracings | 2046IF14B48 | IF1-48 | SHS300*10 | 1 | 742.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1367 | beam-bracings | 2046IF14B49 | IF1-49 | SHS300*10 | 1 | 751.61 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1368 | beam-bracings | 2046IF14B50 | IF1-50 | SHS300*10 | 1 | 751.61 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1369 | beam-bracings | 2046IF14B51 | IF1-51 | HEB300 | 1 | 325.46 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1370 | beam-bracings | 2046IF14B52 | IF1-52 | HEB300 | 1 | 329.69 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1371 | beam-bracings | 2046IF14BR44 | IF1-44 | CHS355.6*10.0 | 1 | 477.95 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1372 | beam-bracings | 2046IF14BR45 | IF1-45 | CHS355.6*10.0 | 1 | 515.44 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 12 |
| 1373 | beam-bracings | 2046IF14LPL32 | IF1-32 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |
| 1374 | beam-bracings | 2046IF14LPL33 | IF1-33 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |
| 1375 | beam-bracings | 2046IF14LPL34 | IF1-34 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |
| 1376 | beam-bracings | 2046IF14LPL35 | IF1-35 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1377 | beam-bracings | 2046IF14LPL36 | IF1-36 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |
| 1378 | beam-bracings | 2046IF14LPL37 | IF1-37 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/08/2015 | 166 |
| 1379 | beam-bracings | 2046IF14LPL38 | IF1-38 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |
| 1380 | beam-bracings | 2046IF14LPL39 | IF1-39 | PL20*390 | 1 | 48.37 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 23/10/2014 | 06 |
| 1381 | beam-bracings | 2046IF14LPL61 | IF1-61 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1382 | beam-bracings | 2046IF14LPL62 | IF1-62 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1383 | beam-bracings | 2046IF14LPL63 | IF1-63 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1384 | beam-bracings | 2046IF14LPL64 | IF1-64 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1385 | beam-bracings | 2046IF14LPL65 | IF1-65 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1386 | beam-bracings | 2046IF14LPL66 | IF1-66 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1387 | beam-bracings | 2046IF14LPL67 | IF1-67 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1388 | beam-bracings | 2046IF14LPL68 | IF1-68 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1389 | beam-bracings | 2046IF14LPL69 | IF1-69 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1390 | beam-bracings | 2046IF14LPL70 | IF1-70 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1391 | beam-bracings | 2046IF14LPL71 | IF1-71 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1392 | beam-bracings | 2046IF14LPL72 | IF1-72 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1393 | beam-bracings | 2046IF14LPL73 | IF1-73 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1394 | beam-bracings | 2046IF14LPL74 | IF1-74 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1395 | beam-bracings | 2046IF14LPL75 | IF1-75 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1396 | beam-bracings | 2046IF14LPL76 | IF1-76 | PL10*330 | 1 | 11.14 | I | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1397 | beam-bracings | 2046HF14B48 | HF1-48 | SHS300*10 | 1 | 742.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1398 | beam-bracings | 2046HF14B49 | HF1-49 | SHS300*10 | 1 | 742.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1399 | beam-bracings | 2046HF14B50 | HF1-50 | SHS300*10 | 1 | 751.61 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1400 | beam-bracings | 2046HF14B51 | HF1-51 | SHS300*10 | 1 | 751.61 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1401 | beam-bracings | 2046HF14B52 | HF1-52 | HEB300 | 1 | 325.46 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1402 | beam-bracings | 2046HF14B53 | HF1-53 | HEB300 | 1 | 329.69 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1403 | beam-bracings | 2046HF14BR45 | HF1-45 | CHS355.6*10.0 | 1 | 477.95 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1404 | beam-bracings | 2046HF14BR46 | HF1-46 | CHS355.6*10.0 | 1 | 515.44 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1405 | beam-bracings | 2046HF14LPL33 | HF1-33 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1406 | beam-bracings | 2046HF14LPL34 | HF1-34 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1407 | beam-bracings | 2046HF14LPL35 | HF1-35 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1408 | beam-bracings | 2046HF14LPL36 | HF1-36 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1409 | beam-bracings | 2046HF14LPL37 | HF1-37 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1410 | beam-bracings | 2046HF14LPL38 | HF1-38 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1411 | beam-bracings | 2046HF14LPL39 | HF1-39 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1412 | beam-bracings | 2046HF14LPL40 | HF1-40 | PL20*390 | 1 | 48.37 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1413 | beam-bracings | 2046HF14LPL62 | HF1-62 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1414 | beam-bracings | 2046HF14LPL63 | HF1-63 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1415 | beam-bracings | 2046HF14LPL64 | HF1-64 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1416 | beam-bracings | 2046HF14LPL65 | HF1-65 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1417 | beam-bracings | 2046HF14LPL66 | HF1-66 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1418 | beam-bracings | 2046HF14LPL67 | HF1-67 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1419 | beam-bracings | 2046HF14LPL68 | HF1-68 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1420 | beam-bracings | 2046HF14LPL69 | HF1-69 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1421 | beam-bracings | 2046HF14LPL70 | HF1-70 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1422 | beam-bracings | 2046HF14LPL71 | HF1-71 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1423 | beam-bracings | 2046HF14LPL72 | HF1-72 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1424 | beam-bracings | 2046HF14LPL73 | HF1-73 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1425 | beam-bracings | 2046HF14LPL74 | HF1-74 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1426 | beam-bracings | 2046HF14LPL75 | HF1-75 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1427 | beam-bracings | 2046HF14LPL76 | HF1-76 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1428 | beam-bracings | 2046HF14LPL77 | HF1-77 | PL10*330 | 1 | 11.14 | H | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1429 | beam-bracings | 2046GF14B48 | GF1-48 | SHS300*10 | 1 | 742.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1430 | beam-bracings | 2046GF14B49 | GF1-49 | SHS300*10 | 1 | 742.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1431 | beam-bracings | 2046GF14B50 | GF1-50 | SHS300*10 | 1 | 751.61 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1432 | beam-bracings | 2046GF14B51 | GF1-51 | SHS300*10 | 1 | 751.61 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1433 | beam-bracings | 2046GF14B52 | GF1-52 | HEB300 | 1 | 325.46 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/12/2014 | 16 |
| 1434 | beam-bracings | 2046GF14B53 | GF1-53 | HEB300 | 1 | 329.69 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/12/2014 | 16 |
| 1435 | beam-bracings | 2046GF14BR45 | GF1-45 | CHS355.6*10.0 | 1 | 477.95 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1436 | beam-bracings | 2046GF14BR46 | GF1-46 | CHS355.6*10.0 | 1 | 515.44 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/10/2014 | 07 |
| 1437 | beam-bracings | 2046GF14LPL33 | GF1-33 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1438 | beam-bracings | 2046GF14LPL34 | GF1-34 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/08/2015 | 166 |
| 1439 | beam-bracings | 2046GF14LPL35 | GF1-35 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1440 | beam-bracings | 2046GF14LPL36 | GF1-36 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1441 | beam-bracings | 2046GF14LPL37 | GF1-37 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1442 | beam-bracings | 2046GF14LPL38 | GF1-38 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1443 | beam-bracings | 2046GF14LPL39 | GF1-39 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1444 | beam-bracings | 2046GF14LPL40 | GF1-40 | PL20*390 | 1 | 48.37 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1445 | beam-bracings | 2046GF14LPL54 | GF1-54 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 11 |
| 1446 | beam-bracings | 2046GF14LPL55 | GF1-55 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1447 | beam-bracings | 2046GF14LPL56 | GF1-56 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1448 | beam-bracings | 2046GF14LPL57 | GF1-57 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1449 | beam-bracings | 2046GF14LPL58 | GF1-58 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1450 | beam-bracings | 2046GF14LPL59 | GF1-59 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1451 | beam-bracings | 2046GF14LPL60 | GF1-60 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1452 | beam-bracings | 2046GF14LPL61 | GF1-61 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1453 | beam-bracings | 2046GF14LPL62 | GF1-62 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1454 | beam-bracings | 2046GF14LPL63 | GF1-63 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1455 | beam-bracings | 2046GF14LPL64 | GF1-64 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1456 | beam-bracings | 2046GF14LPL65 | GF1-65 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1457 | beam-bracings | 2046GF14LPL66 | GF1-66 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1458 | beam-bracings | 2046GF14LPL67 | GF1-67 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1459 | beam-bracings | 2046GF14LPL68 | GF1-68 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1460 | beam-bracings | 2046GF14LPL69 | GF1-69 | PL10*330 | 1 | 11.14 | G | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1461 | beam-bracings | 2046FF14B48 | FF1-48 | SHS300*10 | 1 | 742.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1462 | beam-bracings | 2046FF14B49 | FF1-49 | SHS300*10 | 1 | 742.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 17/12/2014 | 19 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1463 | beam-bracings | 2046FF14B50 | FF1-50 | SHS300*10 | 1 | 751.61 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1464 | beam-bracings | 2046FF14B51 | FF1-51 | SHS300*10 | 1 | 751.61 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 14/11/2014 | 13 |
| 1465 | beam-bracings | 2046FF14B52 | FF1-52 | HEB300 | 1 | 325.46 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/12/2014 | 16 |
| 1466 | beam-bracings | 2046FF14B53 | FF1-53 | HEB300 | 1 | 329.69 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/12/2014 | 16 |
| 1467 | beam-bracings | 2046FF14BR45 | FF1-45 | CHS355.6*10.0 | 1 | 477.95 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 12 |
| 1468 | beam-bracings | 2046FF14BR46 | FF1-46 | CHS355.6*10.0 | 1 | 515.44 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/10/2014 | 07 |
| 1469 | beam-bracings | 2046FF14LPL33 | FF1-33 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1470 | beam-bracings | 2046FF14LPL34 | FF1-34 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1471 | beam-bracings | 2046FF14LPL35 | FF1-35 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1472 | beam-bracings | 2046FF14LPL36 | FF1-36 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1473 | beam-bracings | 2046FF14LPL37 | FF1-37 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1474 | beam-bracings | 2046FF14LPL38 | FF1-38 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1475 | beam-bracings | 2046FF14LPL39 | FF1-39 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1476 | beam-bracings | 2046FF14LPL40 | FF1-40 | PL20*390 | 1 | 48.37 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1477 | beam-bracings | 2046FF14LPL54 | FF1-54 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1478 | beam-bracings | 2046FF14LPL55 | FF1-55 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1479 | beam-bracings | 2046FF14LPL56 | FF1-56 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1480 | beam-bracings | 2046FF14LPL57 | FF1-57 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1481 | beam-bracings | 2046FF14LPL58 | FF1-58 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1482 | beam-bracings | 2046FF14LPL59 | FF1-59 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1483 | beam-bracings | 2046FF14LPL60 | FF1-60 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1484 | beam-bracings | 2046FF14LPL61 | FF1-61 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1485 | beam-bracings | 2046FF14LPL62 | FF1-62 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1486 | beam-bracings | 2046FF14LPL63 | FF1-63 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1487 | beam-bracings | 2046FF14LPL64 | FF1-64 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/08/2015 | 166 |
| 1488 | beam-bracings | 2046FF14LPL65 | FF1-65 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1489 | beam-bracings | 2046FF14LPL66 | FF1-66 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/08/2015 | 166 |
| 1490 | beam-bracings | 2046FF14LPL67 | FF1-67 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/08/2015 | 166 |
| 1491 | beam-bracings | 2046FF14LPL68 | FF1-68 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1492 | beam-bracings | 2046FF14LPL69 | FF1-69 | PL10*330 | 1 | 11.14 | F | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1493 | beam-bracings | 2046EF14B48 | EF1-48 | SHS300*10 | 1 | 742.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1494 | beam-bracings | 2046EF14B49 | EF1-49 | SHS300*10 | 1 | 742.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 04/11/2014 | 10 |
| 1495 | beam-bracings | 2046EF14B50 | EF1-50 | SHS300*10 | 1 | 751.61 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1496 | beam-bracings | 2046EF14B51 | EF1-51 | SHS300*10 | 1 | 751.61 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 29/10/2014 | 08 |
| 1497 | beam-bracings | 2046EF14B52 | EF1-52 | HEB300 | 1 | 325.46 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 01/12/2014 | 16 |
| 1498 | beam-bracings | 2046EF14B53 | EF1-53 | HEB300 | 1 | 329.69 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/07/2015 | 155 |
| 1499 | beam-bracings | 2046EF14BR45 | EF1-45 | CHS355.6*10.0 | 1 | 477.95 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 31/10/2014 | 09 |
| 1500 | beam-bracings | 2046EF14BR46 | EF1-46 | CHS355.6*10.0 | 1 | 515.44 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/11/2014 | 12 |
| 1501 | beam-bracings | 2046EF14LPL35 | EF1-35 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1502 | beam-bracings | 2046EF14LPL36 | EF1-36 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1503 | beam-bracings | 2046EF14LPL37 | EF1-37 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1504 | beam-bracings | 2046EF14LPL38 | EF1-38 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1505 | beam-bracings | 2046EF14LPL39 | EF1-39 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1506 | beam-bracings | 2046EF14LPL40 | EF1-40 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1507 | beam-bracings | 2046EF14LPL41 | EF1-41 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1508 | beam-bracings | 2046EF14LPL42 | EF1-42 | PL20*390 | 1 | 48.37 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 27/11/2014 | 15 |
| 1509 | beam-bracings | 2046EF14LPL54 | EF1-54 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/12/2014 | 18 |
| 1510 | beam-bracings | 2046EF14LPL55 | EF1-55 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/12/2014 | 18 |
| 1511 | beam-bracings | 2046EF14LPL56 | EF1-56 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1512 | beam-bracings | 2046EF14LPL57 | EF1-57 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1513 | beam-bracings | 2046EF14LPL58 | EF1-58 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1514 | beam-bracings | 2046EF14LPL59 | EF1-59 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/12/2014 | 18 |
| 1515 | beam-bracings | 2046EF14LPL60 | EF1-60 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1516 | beam-bracings | 2046EF14LPL61 | EF1-61 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1517 | beam-bracings | 2046EF14LPL62 | EF1-62 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/12/2014 | 18 |
| 1518 | beam-bracings | 2046EF14LPL63 | EF1-63 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1519 | beam-bracings | 2046EF14LPL64 | EF1-64 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1520 | beam-bracings | 2046EF14LPL65 | EF1-65 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/12/2014 | 18 |
| 1521 | beam-bracings | 2046EF14LPL66 | EF1-66 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 24/11/2014 | 14 |
| 1522 | beam-bracings | 2046EF14LPL67 | EF1-67 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1523 | beam-bracings | 2046EF14LPL68 | EF1-68 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 10/12/2014 | 18 |
| 1524 | beam-bracings | 2046EF14LPL69 | EF1-69 | PL10*330 | 1 | 11.14 | E | 1 | 13.1-13.2 | Without Intumescent | Portugal | 16/07/2014 | 03/12/2014 | 17 |
| 1525 | beam-bracings | 2046DF14B47 | DF1-47 | SHS300*10 | 1 | 751.61 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 21/10/2014 | 05 |
| 1526 | beam-bracings | 2046DF14B48 | DF1-48 | SHS300*10 | 1 | 751.61 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 21/10/2014 | 05 |
| 1527 | beam-bracings | 2046DF14B49 | DF1-49 | SHS300*10 | 1 | 740.80 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1528 | beam-bracings | 2046DF14B50 | DF1-50 | SHS300*10 | 1 | 740.80 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 1529 | beam-bracings | 2046DF14B51 | DF1-51 | HEB300 | 1 | 325.46 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1530 | beam-bracings | 2046DF14B52 | DF1-52 | HEB300 | 1 | 329.69 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 1531 | beam-bracings | 2046DF14BR45 | DF1-45 | CHS355.6*10.0 | 1 | 477.95 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1532 | beam-bracings | 2046DF14BR46 | DF1-46 | CHS355.6*10.0 | 1 | 515.44 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1533 | beam-bracings | 2046DF14LPL27 | DF1-27 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 1534 | beam-bracings | 2046DF14LPL28 | DF1-28 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1535 | beam-bracings | 2046DF14LPL29 | DF1-29 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1536 | beam-bracings | 2046DF14LPL30 | DF1-30 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1537 | beam-bracings | 2046DF14LPL31 | DF1-31 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 1538 | beam-bracings | 2046DF14LPL32 | DF1-32 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1539 | beam-bracings | 2046DF14LPL33 | DF1-33 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 1540 | beam-bracings | 2046DF14LPL34 | DF1-34 | PL20*390 | 1 | 48.37 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1541 | beam-bracings | 2046DF14LPL53 | DF1-53 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1542 | beam-bracings | 2046DF14LPL54 | DF1-54 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1543 | beam-bracings | 2046DF14LPL55 | DF1-55 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1544 | beam-bracings | 2046DF14LPL56 | DF1-56 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1545 | beam-bracings | 2046DF14LPL57 | DF1-57 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1546 | beam-bracings | 2046DF14LPL58 | DF1-58 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1547 | beam-bracings | 2046DF14LPL59 | DF1-59 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1548 | beam-bracings | 2046DF14LPL60 | DF1-60 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1549 | beam-bracings | 2046DF14LPL61 | DF1-61 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1550 | beam-bracings | 2046DF14LPL62 | DF1-62 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1551 | beam-bracings | 2046DF14LPL63 | DF1-63 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1552 | beam-bracings | 2046DF14LPL64 | DF1-64 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1553 | beam-bracings | 2046DF14LPL65 | DF1-65 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1554 | beam-bracings | 2046DF14LPL66 | DF1-66 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1555 | beam-bracings | 2046DF14LPL67 | DF1-67 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1556 | beam-bracings | 2046DF14LPL68 | DF1-68 | PL10*330 | 1 | 11.14 | D | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1557 | beam-bracings | 2046CF14B186 | CF1-186 | SHS300*10 | 1 | 712.35 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1558 | beam-bracings | 2046CF14B187 | CF1-187 | SHS300*10 | 1 | 725.84 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 1559 | beam-bracings | 2046CF14B188 | CF1-188 | SHS300*10 | 1 | 715.31 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 1560 | beam-bracings | 2046CF14B189 | CF1-189 | SHS300*10 | 1 | 731.50 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1561 | beam-bracings | 2046CF14B190 | CF1-190 | HEB300 | 1 | 325.46 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1562 | beam-bracings | 2046CF14B191 | CF1-191 | HEB300 | 1 | 329.69 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1563 | beam-bracings | 2046CF14BR171 | CF1-171 | CHS355.6*10.0 | 1 | 477.95 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1564 | beam-bracings | 2046CF14BR172 | CF1-172 | CHS355.6*10.0 | 1 | 515.44 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 17/12/2014 | 19 |
| 1565 | beam-bracings | 2046CF14BR174 | CF1-174 | CHS323.9*8.0 | 1 | 307.36 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1566 | beam-bracings | 2046CF14BR175 | CF1-175 | CHS323.9*8.0 | 1 | 328.46 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1567 | beam-bracings | 2046CF14BR176 | CF1-176 | CHS323.9*8.0 | 1 | 329.04 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 1568 | beam-bracings | 2046CF14BR177 | CF1-177 | CHS323.9*8.0 | 1 | 321.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1569 | beam-bracings | 2046CF14BR178 | CF1-178 | CHS323.9*8.0 | 1 | 768.16 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1570 | beam-bracings | 2046CF14BR179 | CF1-179 | CHS323.9*8.0 | 1 | 755.08 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 1571 | beam-bracings | 2046CF14BR180 | CF1-180 | CHS323.9*8.0 | 1 | 757.47 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1572 | beam-bracings | 2046CF14BR181 | CF1-181 | CHS323.9*8.0 | 1 | 318.35 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1573 | beam-bracings | 2046CF14BR182 | CF1-182 | CHS323.9*8.0 | 1 | 307.36 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1574 | beam-bracings | 2046CF14BR183 | CF1-183 | CHS323.9*8.0 | 1 | 321.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1575 | beam-bracings | 2046CF14BR184 | CF1-184 | CHS323.9*8.0 | 1 | 327.32 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1576 | beam-bracings | 2046CF14BR185 | CF1-185 | CHS323.9*8.0 | 1 | 753.94 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1577 | beam-bracings | 2046CF14LPL99 | CF1-99 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1578 | beam-bracings | 2046CF14LPL100 | CF1-100 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1579 | beam-bracings | 2046CF14LPL101 | CF1-101 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1580 | beam-bracings | 2046CF14LPL102 | CF1-102 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1581 | beam-bracings | 2046CF14LPL103 | CF1-103 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1582 | beam-bracings | 2046CF14LPL104 | CF1-104 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1583 | beam-bracings | 2046CF14LPL105 | CF1-105 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1584 | beam-bracings | 2046CF14LPL106 | CF1-106 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1585 | beam-bracings | 2046CF14LPL107 | CF1-107 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1586 | beam-bracings | 2046CF14LPL108 | CF1-108 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1587 | beam-bracings | 2046CF14LPL109 | CF1-109 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1588 | beam-bracings | 2046CF14LPL110 | CF1-110 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1589 | beam-bracings | 2046CF14LPL111 | CF1-111 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1590 | beam-bracings | 2046CF14LPL112 | CF1-112 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1591 | beam-bracings | 2046CF14LPL113 | CF1-113 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1592 | beam-bracings | 2046CF14LPL114 | CF1-114 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1593 | beam-bracings | 2046CF14LPL115 | CF1-115 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 06/02/2015 | 32 |
| 1594 | beam-bracings | 2046CF14LPL116 | CF1-116 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1595 | beam-bracings | 2046CF14LPL117 | CF1-117 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1596 | beam-bracings | 2046CF14LPL118 | CF1-118 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1597 | beam-bracings | 2046CF14LPL119 | CF1-119 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1598 | beam-bracings | 2046CF14LPL120 | CF1-120 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1599 | beam-bracings | 2046CF14LPL121 | CF1-121 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1600 | beam-bracings | 2046CF14LPL122 | CF1-122 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1601 | beam-bracings | 2046CF14LPL123 | CF1-123 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1602 | beam-bracings | 2046CF14LPL124 | CF1-124 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1603 | beam-bracings | 2046CF14LPL125 | CF1-125 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1604 | beam-bracings | 2046CF14LPL126 | CF1-126 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1605 | beam-bracings | 2046CF14LPL127 | CF1-127 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1606 | beam-bracings | 2046CF14LPL128 | CF1-128 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1607 | beam-bracings | 2046CF14LPL129 | CF1-129 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1608 | beam-bracings | 2046CF14LPL130 | CF1-130 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1609 | beam-bracings | 2046CF14LPL131 | CF1-131 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1610 | beam-bracings | 2046CF14LPL132 | CF1-132 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1611 | beam-bracings | 2046CF14LPL133 | CF1-133 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1612 | beam-bracings | 2046CF14LPL134 | CF1-134 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1613 | beam-bracings | 2046CF14LPL135 | CF1-135 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1614 | beam-bracings | 2046CF14LPL136 | CF1-136 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1615 | beam-bracings | 2046CF14LPL137 | CF1-137 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1616 | beam-bracings | 2046CF14LPL138 | CF1-138 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1617 | beam-bracings | 2046CF14LPL139 | CF1-139 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1618 | beam-bracings | 2046CF14LPL140 | CF1-140 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1619 | beam-bracings | 2046CF14LPL141 | CF1-141 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1620 | beam-bracings | 2046CF14LPL142 | CF1-142 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1621 | beam-bracings | 2046CF14LPL143 | CF1-143 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1622 | beam-bracings | 2046CF14LPL144 | CF1-144 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1623 | beam-bracings | 2046CF14LPL145 | CF1-145 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1624 | beam-bracings | 2046CF14LPL146 | CF1-146 | PL15*350 | 1 | 17.72 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1625 | beam-bracings | 2046CF14LPL147 | CF1-147 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1626 | beam-bracings | 2046CF14LPL148 | CF1-148 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1627 | beam-bracings | 2046CF14LPL149 | CF1-149 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1628 | beam-bracings | 2046CF14LPL150 | CF1-150 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1629 | beam-bracings | 2046CF14LPL151 | CF1-151 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1630 | beam-bracings | 2046CF14LPL152 | CF1-152 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1631 | beam-bracings | 2046CF14LPL153 | CF1-153 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1632 | beam-bracings | 2046CF14LPL154 | CF1-154 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1633 | beam-bracings | 2046CF14LPL155 | CF1-155 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1634 | beam-bracings | 2046CF14LPL156 | CF1-156 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1635 | beam-bracings | 2046CF14LPL157 | CF1-157 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1636 | beam-bracings | 2046CF14LPL158 | CF1-158 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1637 | beam-bracings | 2046CF14LPL159 | CF1-159 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1638 | beam-bracings | 2046CF14LPL160 | CF1-160 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1639 | beam-bracings | 2046CF14LPL161 | CF1-161 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1640 | beam-bracings | 2046CF14LPL162 | CF1-162 | PL10*330 | 1 | 11.14 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1641 | beam-bracings | 2046CF14LPL163 | CF1-163 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1642 | beam-bracings | 2046CF14LPL164 | CF1-164 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1643 | beam-bracings | 2046CF14LPL165 | CF1-165 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1644 | beam-bracings | 2046CF14LPL166 | CF1-166 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1645 | beam-bracings | 2046CF14LPL167 | CF1-167 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1646 | beam-bracings | 2046CF14LPL168 | CF1-168 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1647 | beam-bracings | 2046CF14LPL169 | CF1-169 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1648 | beam-bracings | 2046CF14LPL170 | CF1-170 | PL20*390 | 1 | 48.37 | C | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1649 | beam-bracings | 2046BF14B185 | BF1-185 | SHS300*10 | 1 | 712.35 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1650 | beam-bracings | 2046BF14B186 | BF1-186 | SHS300*10 | 1 | 725.84 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1651 | beam-bracings | 2046BF14B187 | BF1-187 | SHS300*10 | 1 | 715.31 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1652 | beam-bracings | 2046BF14B188 | BF1-188 | SHS300*10 | 1 | 731.50 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1653 | beam-bracings | 2046BF14B189 | BF1-189 | HEB300 | 1 | 325.46 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1654 | beam-bracings | 2046BF14B190 | BF1-190 | HEB300 | 1 | 329.69 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 1655 | beam-bracings | 2046BF14BR170 | BF1-170 | CHS355.6*10.0 | 1 | 477.95 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1656 | beam-bracings | 2046BF14BR171 | BF1-171 | CHS355.6*10.0 | 1 | 515.44 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1657 | beam-bracings | 2046BF14BR173 | BF1-173 | CHS323.9*8.0 | 1 | 307.36 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1658 | beam-bracings | 2046BF14BR174 | BF1-174 | CHS323.9*8.0 | 1 | 328.46 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1659 | beam-bracings | 2046BF14BR175 | BF1-175 | CHS323.9*8.0 | 1 | 307.36 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1660 | beam-bracings | 2046BF14BR176 | BF1-176 | CHS323.9*8.0 | 1 | 327.32 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1661 | beam-bracings | 2046BF14BR177 | BF1-177 | CHS323.9*8.0 | 1 | 329.04 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1662 | beam-bracings | 2046BF14BR178 | BF1-178 | CHS323.9*8.0 | 1 | 321.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1663 | beam-bracings | 2046BF14BR179 | BF1-179 | CHS323.9*8.0 | 1 | 768.16 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/10/2014 | 07 |
| 1664 | beam-bracings | 2046BF14BR180 | BF1-180 | CHS323.9*8.0 | 1 | 755.08 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 1665 | beam-bracings | 2046BF14BR181 | BF1-181 | CHS323.9*8.0 | 1 | 318.35 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1666 | beam-bracings | 2046BF14BR182 | BF1-182 | CHS323.9*8.0 | 1 | 321.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1667 | beam-bracings | 2046BF14BR183 | BF1-183 | CHS323.9*8.0 | 1 | 757.47 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1668 | beam-bracings | 2046BF14BR184 | BF1-184 | CHS323.9*8.0 | 1 | 753.94 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 1669 | beam-bracings | 2046BF14LPL98 | BF1-98 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1670 | beam-bracings | 2046BF14LPL99 | BF1-99 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1671 | beam-bracings | 2046BF14LPL100 | BF1-100 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 06/01/2015 | 20 |
| 1672 | beam-bracings | 2046BF14LPL101 | BF1-101 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1673 | beam-bracings | 2046BF14LPL102 | BF1-102 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1674 | beam-bracings | 2046BF14LPL103 | BF1-103 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1675 | beam-bracings | 2046BF14LPL104 | BF1-104 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1676 | beam-bracings | 2046BF14LPL105 | BF1-105 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1677 | beam-bracings | 2046BF14LPL106 | BF1-106 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1678 | beam-bracings | 2046BF14LPL107 | BF1-107 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1679 | beam-bracings | 2046BF14LPL108 | BF1-108 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1680 | beam-bracings | 2046BF14LPL109 | BF1-109 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1681 | beam-bracings | 2046BF14LPL110 | BF1-110 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1682 | beam-bracings | 2046BF14LPL111 | BF1-111 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1683 | beam-bracings | 2046BF14LPL112 | BF1-112 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1684 | beam-bracings | 2046BF14LPL113 | BF1-113 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1685 | beam-bracings | 2046BF14LPL114 | BF1-114 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1686 | beam-bracings | 2046BF14LPL115 | BF1-115 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 06/01/2015 | 20 |
| 1687 | beam-bracings | 2046BF14LPL116 | BF1-116 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1688 | beam-bracings | 2046BF14LPL117 | BF1-117 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1689 | beam-bracings | 2046BF14LPL118 | BF1-118 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1690 | beam-bracings | 2046BF14LPL119 | BF1-119 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 06/01/2015 | 20 |
| 1691 | beam-bracings | 2046BF14LPL120 | BF1-120 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1692 | beam-bracings | 2046BF14LPL121 | BF1-121 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1693 | beam-bracings | 2046BF14LPL122 | BF1-122 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1694 | beam-bracings | 2046BF14LPL123 | BF1-123 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1695 | beam-bracings | 2046BF14LPL124 | BF1-124 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1696 | beam-bracings | 2046BF14LPL125 | BF1-125 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1697 | beam-bracings | 2046BF14LPL126 | BF1-126 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1698 | beam-bracings | 2046BF14LPL127 | BF1-127 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1699 | beam-bracings | 2046BF14LPL128 | BF1-128 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 1700 | beam-bracings | 2046BF14LPL129 | BF1-129 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1701 | beam-bracings | 2046BF14LPL130 | BF1-130 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1702 | beam-bracings | 2046BF14LPL131 | BF1-131 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1703 | beam-bracings | 2046BF14LPL132 | BF1-132 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1704 | beam-bracings | 2046BF14LPL133 | BF1-133 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 1705 | beam-bracings | 2046BF14LPL134 | BF1-134 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1706 | beam-bracings | 2046BF14LPL135 | BF1-135 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1707 | beam-bracings | 2046BF14LPL136 | BF1-136 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1708 | beam-bracings | 2046BF14LPL137 | BF1-137 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1709 | beam-bracings | 2046BF14LPL138 | BF1-138 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1710 | beam-bracings | 2046BF14LPL139 | BF1-139 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1711 | beam-bracings | 2046BF14LPL140 | BF1-140 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1712 | beam-bracings | 2046BF14LPL141 | BF1-141 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1713 | beam-bracings | 2046BF14LPL142 | BF1-142 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1714 | beam-bracings | 2046BF14LPL143 | BF1-143 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1715 | beam-bracings | 2046BF14LPL144 | BF1-144 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1716 | beam-bracings | 2046BF14LPL145 | BF1-145 | PL15*350 | 1 | 17.72 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1717 | beam-bracings | 2046BF14LPL146 | BF1-146 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1718 | beam-bracings | 2046BF14LPL147 | BF1-147 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1719 | beam-bracings | 2046BF14LPL148 | BF1-148 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1720 | beam-bracings | 2046BF14LPL149 | BF1-149 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1721 | beam-bracings | 2046BF14LPL150 | BF1-150 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1722 | beam-bracings | 2046BF14LPL151 | BF1-151 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1723 | beam-bracings | 2046BF14LPL152 | BF1-152 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1724 | beam-bracings | 2046BF14LPL153 | BF1-153 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1725 | beam-bracings | 2046BF14LPL154 | BF1-154 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1726 | beam-bracings | 2046BF14LPL155 | BF1-155 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1727 | beam-bracings | 2046BF14LPL156 | BF1-156 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1728 | beam-bracings | 2046BF14LPL157 | BF1-157 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1729 | beam-bracings | 2046BF14LPL158 | BF1-158 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1730 | beam-bracings | 2046BF14LPL159 | BF1-159 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1731 | beam-bracings | 2046BF14LPL160 | BF1-160 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1732 | beam-bracings | 2046BF14LPL161 | BF1-161 | PL10*330 | 1 | 11.14 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1733 | beam-bracings | 2046BF14LPL162 | BF1-162 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1734 | beam-bracings | 2046BF14LPL163 | BF1-163 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1735 | beam-bracings | 2046BF14LPL164 | BF1-164 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1736 | beam-bracings | 2046BF14LPL165 | BF1-165 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1737 | beam-bracings | 2046BF14LPL166 | BF1-166 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1738 | beam-bracings | 2046BF14LPL167 | BF1-167 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1739 | beam-bracings | 2046BF14LPL168 | BF1-168 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1740 | beam-bracings | 2046BF14LPL169 | BF1-169 | PL20*390 | 1 | 48.37 | B | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1741 | beam-bracings | 2046AF14B214 | AF1-214 | SHS300*10 | 1 | 712.35 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1742 | beam-bracings | 2046AF14B215 | AF1-215 | HEB300 | 1 | 325.46 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1743 | beam-bracings | 2046AF14B216 | AF1-216 | HEB300 | 1 | 329.69 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1744 | beam-bracings | 2046AF14B217 | AF1-217 | HEB300 | 1 | 325.46 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1745 | beam-bracings | 2046AF14B218 | AF1-218 | HEB300 | 1 | 329.69 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 1746 | beam-bracings | 2046AF14BR194 | AF1-194 | CHS355.6*10.0 | 1 | 477.95 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1747 | beam-bracings | 2046AF14BR197 | AF1-197 | CHS355.6*10.0 | 1 | 515.44 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1748 | beam-bracings | 2046AF14BR199 | AF1-199 | CHS323.9*8.0 | 1 | 329.04 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 1749 | beam-bracings | 2046AF14BR200 | AF1-200 | CHS323.9*8.0 | 1 | 321.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 1750 | beam-bracings | 2046AF14BR202 | AF1-202 | CHS323.9*8.0 | 1 | 321.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 1751 | beam-bracings | 2046AF14BR204 | AF1-204 | CHS323.9*8.0 | 1 | 755.08 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 21/10/2014 | 05 |
| 1752 | beam-bracings | 2046AF14BR205 | AF1-205 | CHS323.9*8.0 | 1 | 307.36 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1753 | beam-bracings | 2046AF14BR206 | AF1-206 | CHS323.9*8.0 | 1 | 328.46 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 1754 | beam-bracings | 2046AF14BR208 | AF1-208 | CHS323.9*8.0 | 1 | 753.94 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 23/10/2014 | 06 |
| 1755 | beam-bracings | 2046AF14BR209 | AF1-209 | CHS323.9*8.0 | 1 | 307.36 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 1756 | beam-bracings | 2046AF14LPL114 | AF1-114 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1757 | beam-bracings | 2046AF14LPL115 | AF1-115 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1758 | beam-bracings | 2046AF14LPL116 | AF1-116 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1759 | beam-bracings | 2046AF14LPL117 | AF1-117 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 01/08/2015 | 166 |
| 1760 | beam-bracings | 2046AF14LPL118 | AF1-118 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1761 | beam-bracings | 2046AF14LPL119 | AF1-119 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1762 | beam-bracings | 2046AF14LPL120 | AF1-120 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1763 | beam-bracings | 2046AF14LPL121 | AF1-121 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1764 | beam-bracings | 2046AF14LPL122 | AF1-122 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1765 | beam-bracings | 2046AF14LPL123 | AF1-123 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1766 | beam-bracings | 2046AF14LPL124 | AF1-124 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1767 | beam-bracings | 2046AF14LPL125 | AF1-125 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1768 | beam-bracings | 2046AF14LPL126 | AF1-126 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1769 | beam-bracings | 2046AF14LPL127 | AF1-127 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1770 | beam-bracings | 2046AF14LPL128 | AF1-128 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1771 | beam-bracings | 2046AF14LPL129 | AF1-129 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 1772 | beam-bracings | 2046AF14LPL130 | AF1-130 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1773 | beam-bracings | 2046AF14LPL131 | AF1-131 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1774 | beam-bracings | 2046AF14LPL132 | AF1-132 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1775 | beam-bracings | 2046AF14LPL133 | AF1-133 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1776 | beam-bracings | 2046AF14LPL134 | AF1-134 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1777 | beam-bracings | 2046AF14LPL135 | AF1-135 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1778 | beam-bracings | 2046AF14LPL136 | AF1-136 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1779 | beam-bracings | 2046AF14LPL137 | AF1-137 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1780 | beam-bracings | 2046AF14LPL138 | AF1-138 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1781 | beam-bracings | 2046AF14LPL139 | AF1-139 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1782 | beam-bracings | 2046AF14LPL140 | AF1-140 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1783 | beam-bracings | 2046AF14LPL141 | AF1-141 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1784 | beam-bracings | 2046AF14LPL142 | AF1-142 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1785 | beam-bracings | 2046AF14LPL143 | AF1-143 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1786 | beam-bracings | 2046AF14LPL144 | AF1-144 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1787 | beam-bracings | 2046AF14LPL145 | AF1-145 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1788 | beam-bracings | 2046AF14LPL146 | AF1-146 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1789 | beam-bracings | 2046AF14LPL147 | AF1-147 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1790 | beam-bracings | 2046AF14LPL148 | AF1-148 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1791 | beam-bracings | 2046AF14LPL149 | AF1-149 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1792 | beam-bracings | 2046AF14LPL150 | AF1-150 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1793 | beam-bracings | 2046AF14LPL151 | AF1-151 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1794 | beam-bracings | 2046AF14LPL152 | AF1-152 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1795 | beam-bracings | 2046AF14LPL153 | AF1-153 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1796 | beam-bracings | 2046AF14LPL154 | AF1-154 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1797 | beam-bracings | 2046AF14LPL155 | AF1-155 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1798 | beam-bracings | 2046AF14LPL156 | AF1-156 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1799 | beam-bracings | 2046AF14LPL157 | AF1-157 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 13/02/2015 | 36 |
| 1800 | beam-bracings | 2046AF14LPL158 | AF1-158 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1801 | beam-bracings | 2046AF14LPL159 | AF1-159 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 1802 | beam-bracings | 2046AF14LPL160 | AF1-160 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1803 | beam-bracings | 2046AF14LPL161 | AF1-161 | PL15*350 | 1 | 17.72 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 1804 | beam-bracings | 2046AF14LPL162 | AF1-162 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1805 | beam-bracings | 2046AF14LPL163 | AF1-163 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1806 | beam-bracings | 2046AF14LPL164 | AF1-164 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1807 | beam-bracings | 2046AF14LPL165 | AF1-165 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1808 | beam-bracings | 2046AF14LPL166 | AF1-166 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1809 | beam-bracings | 2046AF14LPL167 | AF1-167 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 1810 | beam-bracings | 2046AF14LPL168 | AF1-168 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1811 | beam-bracings | 2046AF14LPL169 | AF1-169 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 1812 | beam-bracings | 2046AF14LPL170 | AF1-170 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1813 | beam-bracings | 2046AF14LPL171 | AF1-171 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1814 | beam-bracings | 2046AF14LPL172 | AF1-172 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1815 | beam-bracings | 2046AF14LPL173 | AF1-173 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1816 | beam-bracings | 2046AF14LPL174 | AF1-174 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1817 | beam-bracings | 2046AF14LPL175 | AF1-175 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1818 | beam-bracings | 2046AF14LPL176 | AF1-176 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1819 | beam-bracings | 2046AF14LPL177 | AF1-177 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1820 | beam-bracings | 2046AF14LPL178 | AF1-178 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1821 | beam-bracings | 2046AF14LPL179 | AF1-179 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1822 | beam-bracings | 2046AF14LPL180 | AF1-180 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1823 | beam-bracings | 2046AF14LPL181 | AF1-181 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1824 | beam-bracings | 2046AF14LPL182 | AF1-182 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 17/04/2015 | 70 |
| 1825 | beam-bracings | 2046AF14LPL183 | AF1-183 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 17/04/2015 | 70 |
| 1826 | beam-bracings | 2046AF14LPL184 | AF1-184 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1827 | beam-bracings | 2046AF14LPL185 | AF1-185 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1828 | beam-bracings | 2046AF14LPL186 | AF1-186 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1829 | beam-bracings | 2046AF14LPL187 | AF1-187 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1830 | beam-bracings | 2046AF14LPL188 | AF1-188 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1831 | beam-bracings | 2046AF14LPL189 | AF1-189 | PL10*330 | 1 | 11.14 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 1832 | beam-bracings | 2046AF14LPL190 | AF1-190 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1833 | beam-bracings | 2046AF14LPL191 | AF1-191 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1834 | beam-bracings | 2046AF14LPL192 | AF1-192 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1835 | beam-bracings | 2046AF14LPL193 | AF1-193 | PL20*390 | 1 | 48.37 | A | 1 | 13.1-13.2 | Without Intumescent | Portugal | 23/07/2014 | 10/03/2015 | 49 |
| 1836 | beam-bracings | 2046AF41B114 | AF4-114 | SHS300*10 | 1 | 721.49 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1837 | beam-bracings | 2046AF41B115 | AF4-115 | SHS300*10 | 1 | 721.24 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/10/2014 | 07 |
| 1838 | beam-bracings | 2046AF41B116 | AF4-116 | SHS300*10 | 1 | 765.99 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1839 | beam-bracings | 2046AF41B146 | AF4-146 | HEA220 | 1 | 102.21 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1840 | beam-bracings | 2046AF41B147 | AF4-147 | HEA220 | 1 | 106.33 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1841 | beam-bracings | 2046AF41B148 | AF4-148 | HEA220 | 1 | 106.33 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1842 | beam-bracings | 2046AF41B149 | AF4-149 | HEA220 | 1 | 102.21 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1843 | beam-bracings | 2046AF41B279 | AF4-279 | HEB300 | 1 | 221.88 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1844 | beam-bracings | 2046AF41B280 | AF4-280 | HEB300 | 1 | 221.88 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1845 | beam-bracings | 2046AF41B281 | AF4-281 | HEB300 | 1 | 221.88 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1846 | beam-bracings | 2046AF41B282 | AF4-282 | HEB300 | 1 | 221.88 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1847 | beam-bracings | 2046AF41BR107 | AF4-107 | CHS323.9*6.3 | 1 | 268.78 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1848 | beam-bracings | 2046AF41BR108 | AF4-108 | CHS323.9*6.3 | 1 | 276.49 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1849 | beam-bracings | 2046AF41BR109 | AF4-109 | CHS323.9*6.3 | 1 | 640.57 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1850 | beam-bracings | 2046AF41BR110 | AF4-110 | CHS323.9*6.3 | 1 | 640.25 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1851 | beam-bracings | 2046AF41BR111 | AF4-111 | CHS323.9*6.3 | 1 | 268.78 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1852 | beam-bracings | 2046AF41BR112 | AF4-112 | CHS323.9*6.3 | 1 | 277.45 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1853 | beam-bracings | 2046AF41BR150 | AF4-150 | CHS139.7*8.0 | 1 | 67.06 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1854 | beam-bracings | 2046AF41BR151 | AF4-151 | CHS139.7*8.0 | 1 | 67.06 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1855 | beam-bracings | 2046AF41BR152 | AF4-152 | CHS139.7*8.0 | 1 | 53.00 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1856 | beam-bracings | 2046AF41BR153 | AF4-153 | CHS139.7*8.0 | 1 | 53.00 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1857 | beam-bracings | 2046AF41LPL85 | AF4-85 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1858 | beam-bracings | 2046AF41LPL86 | AF4-86 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1859 | beam-bracings | 2046AF41LPL87 | AF4-87 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1860 | beam-bracings | 2046AF41LPL88 | AF4-88 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1861 | beam-bracings | 2046AF41LPL91 | AF4-91 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1862 | beam-bracings | 2046AF41LPL92 | AF4-92 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1863 | beam-bracings | 2046AF41LPL93 | AF4-93 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1864 | beam-bracings | 2046AF41LPL95 | AF4-95 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1865 | beam-bracings | 2046AF41LPL96 | AF4-96 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1866 | beam-bracings | 2046AF41LPL97 | AF4-97 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1867 | beam-bracings | 2046AF41LPL98 | AF4-98 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1868 | beam-bracings | 2046AF41LPL99 | AF4-99 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1869 | beam-bracings | 2046AF41LPL100 | AF4-100 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1870 | beam-bracings | 2046AF41LPL101 | AF4-101 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1871 | beam-bracings | 2046AF41LPL102 | AF4-102 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1872 | beam-bracings | 2046AF41LPL103 | AF4-103 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1873 | beam-bracings | 2046AF41LPL104 | AF4-104 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1874 | beam-bracings | 2046AF41LPL106 | AF4-106 | PL10*330 | 1 | 11.14 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1875 | beam-bracings | 2046AF41LPL121 | AF4-121 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1876 | beam-bracings | 2046AF41LPL122 | AF4-122 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1877 | beam-bracings | 2046AF41LPL123 | AF4-123 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1878 | beam-bracings | 2046AF41LPL124 | AF4-124 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1879 | beam-bracings | 2046AF41LPL125 | AF4-125 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1880 | beam-bracings | 2046AF41LPL126 | AF4-126 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1881 | beam-bracings | 2046AF41LPL127 | AF4-127 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1882 | beam-bracings | 2046AF41LPL128 | AF4-128 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1883 | beam-bracings | 2046AF41LPL129 | AF4-129 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1884 | beam-bracings | 2046AF41LPL130 | AF4-130 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1885 | beam-bracings | 2046AF41LPL131 | AF4-131 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1886 | beam-bracings | 2046AF41LPL132 | AF4-132 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1887 | beam-bracings | 2046AF41LPL133 | AF4-133 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1888 | beam-bracings | 2046AF41LPL134 | AF4-134 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1889 | beam-bracings | 2046AF41LPL135 | AF4-135 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1890 | beam-bracings | 2046AF41LPL136 | AF4-136 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1891 | beam-bracings | 2046AF41LPL138 | AF4-138 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1892 | beam-bracings | 2046AF41LPL139 | AF4-139 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |

### Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1893 | beam-bracings | 2046AF41LPL140 | AF4-140 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1894 | beam-bracings | 2046AF41LPL141 | AF4-141 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1895 | beam-bracings | 2046AF41LPL142 | AF4-142 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1896 | beam-bracings | 2046AF41LPL143 | AF4-143 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1897 | beam-bracings | 2046AF41LPL144 | AF4-144 | PL15*350 | 1 | 17.72 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1898 | beam-bracings | 2046AF41LPL267 | AF4-267 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1899 | beam-bracings | 2046AF41LPL268 | AF4-268 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1900 | beam-bracings | 2046AF41LPL271 | AF4-271 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1901 | beam-bracings | 2046AF41LPL272 | AF4-272 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1902 | beam-bracings | 2046AF41LPL273 | AF4-273 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1903 | beam-bracings | 2046AF41LPL274 | AF4-274 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1904 | beam-bracings | 2046AF41LPL275 | AF4-275 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1905 | beam-bracings | 2046AF41LPL277 | AF4-277 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1906 | beam-bracings | 2046AF41LPL278 | AF4-278 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1907 | beam-bracings | 2046AF41LPL283 | AF4-283 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1908 | beam-bracings | 2046AF41LPL284 | AF4-284 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1909 | beam-bracings | 2046AF41LPL285 | AF4-285 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1910 | beam-bracings | 2046AF41LPL286 | AF4-286 | PL10*170 | 1 | 4.67 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1911 | beam-bracings | 2046AF41TR113 | AF4-113 | SHS300*10 | 1 | 2316.23 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 24/11/2014 | 14 |
| 1912 | beam-bracings | 2046AF41V89 | AF4-89 | HEB500 | 1 | 885.81 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1913 | beam-bracings | 2046AF41V145 | AF4-145 | HEB500 | 1 | 885.08 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1914 | beam-bracings | 2046BF41B80 | BF4-80 | SHS300*10 | 1 | 721.49 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1915 | beam-bracings | 2046BF41B81 | BF4-81 | SHS300*10 | 1 | 721.24 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1916 | beam-bracings | 2046BF41B82 | BF4-82 | SHS300*10 | 1 | 765.99 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 09/01/2015 | 21 |
| 1917 | beam-bracings | 2046BF41B83 | BF4-83 | HEB300 | 1 | 221.88 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1918 | beam-bracings | 2046BF41B108 | BF4-108 | HEA220 | 1 | 102.21 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1919 | beam-bracings | 2046BF41B109 | BF4-109 | HEA220 | 1 | 106.33 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1920 | beam-bracings | 2046BF41BR73 | BF4-73 | CHS323.9*6.3 | 1 | 268.78 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1921 | beam-bracings | 2046BF41BR74 | BF4-74 | CHS323.9*6.3 | 1 | 277.45 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1922 | beam-bracings | 2046BF41BR75 | BF4-75 | CHS323.9*6.3 | 1 | 268.78 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1923 | beam-bracings | 2046BF41BR76 | BF4-76 | CHS323.9*6.3 | 1 | 276.49 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1924 | beam-bracings | 2046BF41BR77 | BF4-77 | CHS323.9*6.3 | 1 | 640.57 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1925 | beam-bracings | 2046BF41BR110 | BF4-110 | CHS139.7*8.0 | 1 | 67.06 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1926 | beam-bracings | 2046BF41BR111 | BF4-111 | CHS139.7*8.0 | 1 | 67.06 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1927 | beam-bracings | 2046BF41BR112 | BF4-112 | CHS139.7*8.0 | 1 | 53.00 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1928 | beam-bracings | 2046BF41BR113 | BF4-113 | CHS139.7*8.0 | 1 | 53.00 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 14/11/2014 | 13 |
| 1929 | beam-bracings | 2046BF41LPL51 | BF4-51 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1930 | beam-bracings | 2046BF41LPL52 | BF4-52 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1931 | beam-bracings | 2046BF41LPL53 | BF4-53 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1932 | beam-bracings | 2046BF41LPL57 | BF4-57 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1933 | beam-bracings | 2046BF41LPL58 | BF4-58 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1934 | beam-bracings | 2046BF41LPL59 | BF4-59 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1935 | beam-bracings | 2046BF41LPL61 | BF4-61 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1936 | beam-bracings | 2046BF41LPL62 | BF4-62 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1937 | beam-bracings | 2046BF41LPL63 | BF4-63 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1938 | beam-bracings | 2046BF41LPL64 | BF4-64 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1939 | beam-bracings | 2046BF41LPL65 | BF4-65 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1940 | beam-bracings | 2046BF41LPL66 | BF4-66 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1941 | beam-bracings | 2046BF41LPL68 | BF4-68 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1942 | beam-bracings | 2046BF41LPL69 | BF4-69 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1943 | beam-bracings | 2046BF41LPL70 | BF4-70 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1944 | beam-bracings | 2046BF41LPL71 | BF4-71 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1945 | beam-bracings | 2046BF41LPL72 | BF4-72 | PL10*330 | 1 | 11.14 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1946 | beam-bracings | 2046BF41LPL85 | BF4-85 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1947 | beam-bracings | 2046BF41LPL86 | BF4-86 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1948 | beam-bracings | 2046BF41LPL89 | BF4-89 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1949 | beam-bracings | 2046BF41LPL91 | BF4-91 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1950 | beam-bracings | 2046BF41LPL92 | BF4-92 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1951 | beam-bracings | 2046BF41LPL93 | BF4-93 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1952 | beam-bracings | 2046BF41LPL95 | BF4-95 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 1953 | beam-bracings | 2046BF41LPL97 | BF4-97 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1954 | beam-bracings | 2046BF41LPL98 | BF4-98 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1955 | beam-bracings | 2046BF41LPL100 | BF4-100 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1956 | beam-bracings | 2046BF41LPL101 | BF4-101 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1957 | beam-bracings | 2046BF41LPL103 | BF4-103 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1958 | beam-bracings | 2046BF41LPL104 | BF4-104 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1959 | beam-bracings | 2046BF41LPL105 | BF4-105 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1960 | beam-bracings | 2046BF41LPL106 | BF4-106 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 1961 | beam-bracings | 2046BF41LPL107 | BF4-107 | PL15*350 | 1 | 17.72 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/11/2014 | 10 |
| 1962 | beam-bracings | 2046BF41LPL241 | BF4-241 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1963 | beam-bracings | 2046BF41LPL242 | BF4-242 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1964 | beam-bracings | 2046BF41LPL243 | BF4-243 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1965 | beam-bracings | 2046BF41LPL244 | BF4-244 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1966 | beam-bracings | 2046BF41LPL245 | BF4-245 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1967 | beam-bracings | 2046BF41LPL246 | BF4-246 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1968 | beam-bracings | 2046BF41LPL247 | BF4-247 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1969 | beam-bracings | 2046BF41LPL248 | BF4-248 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1970 | beam-bracings | 2046BF41LPL249 | BF4-249 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1971 | beam-bracings | 2046BF41LPL250 | BF4-250 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1972 | beam-bracings | 2046BF41LPL251 | BF4-251 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1973 | beam-bracings | 2046BF41LPL252 | BF4-252 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1974 | beam-bracings | 2046BF41LPL253 | BF4-253 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1975 | beam-bracings | 2046BF41LPL254 | BF4-254 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1976 | beam-bracings | 2046BF41LPL255 | BF4-255 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1977 | beam-bracings | 2046BF41LPL256 | BF4-256 | PL10*170 | 1 | 4.67 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1978 | beam-bracings | 2046BF41TR79 | BF4-79 | SHS300*10 | 1 | 2316.23 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/12/2014 | 18 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1979 | beam-bracings | 2046BF41V55 | BF4-55 | HEB500 | 1 | 885.08 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 1980 | beam-bracings | 2046CF41B78 | CF4-78 | SHS300*10 | 1 | 721.49 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 06/01/2015 | 20 |
| 1981 | beam-bracings | 2046CF41B79 | CF4-79 | SHS300*10 | 1 | 721.24 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 24/11/2014 | 14 |
| 1982 | beam-bracings | 2046CF41B80 | CF4-80 | SHS300*10 | 1 | 765.99 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 15/01/2015 | 23 |
| 1983 | beam-bracings | 2046CF41B81 | CF4-81 | HEB300 | 1 | 221.88 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1984 | beam-bracings | 2046CF41B106 | CF4-106 | HEA220 | 1 | 106.33 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1985 | beam-bracings | 2046CF41B107 | CF4-107 | HEA220 | 1 | 102.21 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 1986 | beam-bracings | 2046CF41BR71 | CF4-71 | CHS323.9*6.3 | 1 | 268.78 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1987 | beam-bracings | 2046CF41BR72 | CF4-72 | CHS323.9*6.3 | 1 | 277.45 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/10/2014 | 07 |
| 1988 | beam-bracings | 2046CF41BR73 | CF4-73 | CHS323.9*6.3 | 1 | 268.78 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1989 | beam-bracings | 2046CF41BR74 | CF4-74 | CHS323.9*6.3 | 1 | 276.49 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 1990 | beam-bracings | 2046CF41BR75 | CF4-75 | CHS323.9*6.3 | 1 | 640.57 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 23/10/2014 | 06 |
| 1991 | beam-bracings | 2046CF41BR76 | CF4-76 | CHS323.9*6.3 | 1 | 640.25 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1992 | beam-bracings | 2046CF41BR108 | CF4-108 | CHS139.7*8.0 | 1 | 67.06 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1993 | beam-bracings | 2046CF41BR109 | CF4-109 | CHS139.7*8.0 | 1 | 67.06 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 1994 | beam-bracings | 2046CF41BR110 | CF4-110 | CHS139.7*8.0 | 1 | 53.00 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1995 | beam-bracings | 2046CF41BR111 | CF4-111 | CHS139.7*8.0 | 1 | 53.00 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 1996 | beam-bracings | 2046CF41LPL49 | CF4-49 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1997 | beam-bracings | 2046CF41LPL51 | CF4-51 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1998 | beam-bracings | 2046CF41LPL52 | CF4-52 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 1999 | beam-bracings | 2046CF41LPL55 | CF4-55 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2000 | beam-bracings | 2046CF41LPL56 | CF4-56 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2001 | beam-bracings | 2046CF41LPL57 | CF4-57 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2002 | beam-bracings | 2046CF41LPL58 | CF4-58 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2003 | beam-bracings | 2046CF41LPL59 | CF4-59 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2004 | beam-bracings | 2046CF41LPL60 | CF4-60 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2005 | beam-bracings | 2046CF41LPL61 | CF4-61 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2006 | beam-bracings | 2046CF41LPL62 | CF4-62 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2007 | beam-bracings | 2046CF41LPL63 | CF4-63 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2008 | beam-bracings | 2046CF41LPL64 | CF4-64 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2009 | beam-bracings | 2046CF41LPL65 | CF4-65 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2010 | beam-bracings | 2046CF41LPL66 | CF4-66 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2011 | beam-bracings | 2046CF41LPL68 | CF4-68 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2012 | beam-bracings | 2046CF41LPL69 | CF4-69 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 28/01/2015 | 28 |
| 2013 | beam-bracings | 2046CF41LPL70 | CF4-70 | PL10*330 | 1 | 11.14 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2014 | beam-bracings | 2046CF41LPL84 | CF4-84 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2015 | beam-bracings | 2046CF41LPL86 | CF4-86 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2016 | beam-bracings | 2046CF41LPL87 | CF4-87 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2017 | beam-bracings | 2046CF41LPL89 | CF4-89 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 2018 | beam-bracings | 2046CF41LPL90 | CF4-90 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2019 | beam-bracings | 2046CF41LPL91 | CF4-91 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2020 | beam-bracings | 2046CF41LPL94 | CF4-94 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2021 | beam-bracings | 2046CF41LPL95 | CF4-95 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2022 | beam-bracings | 2046CF41LPL96 | CF4-96 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2023 | beam-bracings | 2046CF41LPL97 | CF4-97 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2024 | beam-bracings | 2046CF41LPL98 | CF4-98 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2025 | beam-bracings | 2046CF41LPL99 | CF4-99 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2026 | beam-bracings | 2046CF41LPL100 | CF4-100 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2027 | beam-bracings | 2046CF41LPL101 | CF4-101 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2028 | beam-bracings | 2046CF41LPL102 | CF4-102 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2029 | beam-bracings | 2046CF41LPL103 | CF4-103 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2030 | beam-bracings | 2046CF41LPL104 | CF4-104 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2031 | beam-bracings | 2046CF41LPL105 | CF4-105 | PL15*350 | 1 | 17.72 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 02/02/2015 | 30 |
| 2032 | beam-bracings | 2046CF41LPL241 | CF4-241 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2033 | beam-bracings | 2046CF41LPL242 | CF4-242 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2034 | beam-bracings | 2046CF41LPL243 | CF4-243 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2035 | beam-bracings | 2046CF41LPL245 | CF4-245 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2036 | beam-bracings | 2046CF41LPL246 | CF4-246 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2037 | beam-bracings | 2046CF41LPL247 | CF4-247 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2038 | beam-bracings | 2046CF41LPL249 | CF4-249 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2039 | beam-bracings | 2046CF41LPL250 | CF4-250 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2040 | beam-bracings | 2046CF41LPL251 | CF4-251 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2041 | beam-bracings | 2046CF41LPL252 | CF4-252 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2042 | beam-bracings | 2046CF41LPL255 | CF4-255 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2043 | beam-bracings | 2046CF41LPL257 | CF4-257 | PL10*170 | 1 | 4.67 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2044 | beam-bracings | 2046CF41TR253 | CF4-253 | SHS300*10 | 1 | 2316.23 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 2045 | beam-bracings | 2046CF41V53 | CF4-53 | HEB500 | 1 | 885.08 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 2046 | beam-bracings | 2046DF41B74 | DF4-74 | SHS300*10 | 1 | 741.91 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 21/10/2014 | 05 |
| 2047 | beam-bracings | 2046DF41B75 | DF4-75 | SHS300*10 | 1 | 741.91 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2048 | beam-bracings | 2046DF41B76 | DF4-76 | SHS300*10 | 1 | 765.99 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 2049 | beam-bracings | 2046DF41B77 | DF4-77 | HEB300 | 1 | 221.88 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 24/11/2014 | 14 |
| 2050 | beam-bracings | 2046DF41B78 | DF4-78 | HEA220 | 1 | 102.21 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 2051 | beam-bracings | 2046DF41B79 | DF4-79 | HEA220 | 1 | 106.33 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 31/10/2014 | 09 |
| 2052 | beam-bracings | 2046DF41BR80 | DF4-80 | CHS139.7*8.0 | 1 | 67.06 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 2053 | beam-bracings | 2046DF41BR81 | DF4-81 | CHS139.7*8.0 | 1 | 67.06 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 2054 | beam-bracings | 2046DF41BR82 | DF4-82 | CHS139.7*8.0 | 1 | 53.00 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 11 |
| 2055 | beam-bracings | 2046DF41BR83 | DF4-83 | CHS139.7*8.0 | 1 | 53.00 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 27/11/2014 | 15 |
| 2056 | beam-bracings | 2046DF41LPL52 | DF4-52 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2057 | beam-bracings | 2046DF41LPL53 | DF4-53 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2058 | beam-bracings | 2046DF41LPL54 | DF4-54 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2059 | beam-bracings | 2046DF41LPL57 | DF4-57 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2060 | beam-bracings | 2046DF41LPL58 | DF4-58 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2061 | beam-bracings | 2046DF41LPL59 | DF4-59 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2062 | beam-bracings | 2046DF41LPL60 | DF4-60 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2063 | beam-bracings | 2046DF41LPL61 | DF4-61 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2064 | beam-bracings | 2046DF41LPL62 | DF4-62 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2065 | beam-bracings | 2046DF41LPL63 | DF4-63 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2066 | beam-bracings | 2046DF41LPL64 | DF4-64 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2067 | beam-bracings | 2046DF41LPL65 | DF4-65 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2068 | beam-bracings | 2046DF41LPL66 | DF4-66 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2069 | beam-bracings | 2046DF41LPL67 | DF4-67 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2070 | beam-bracings | 2046DF41LPL68 | DF4-68 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2071 | beam-bracings | 2046DF41LPL69 | DF4-69 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2072 | beam-bracings | 2046DF41LPL70 | DF4-70 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2073 | beam-bracings | 2046DF41LPL71 | DF4-71 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2074 | beam-bracings | 2046DF41LPL72 | DF4-72 | PL10*330 | 1 | 11.14 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 03/12/2014 | 17 |
| 2075 | beam-bracings | 2046DF41LPL154 | DF4-154 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2076 | beam-bracings | 2046DF41LPL155 | DF4-155 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2077 | beam-bracings | 2046DF41LPL156 | DF4-156 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 04/02/2015 | 31 |
| 2078 | beam-bracings | 2046DF41LPL157 | DF4-157 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2079 | beam-bracings | 2046DF41LPL160 | DF4-160 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2080 | beam-bracings | 2046DF41LPL161 | DF4-161 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2081 | beam-bracings | 2046DF41LPL162 | DF4-162 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2082 | beam-bracings | 2046DF41LPL164 | DF4-164 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2083 | beam-bracings | 2046DF41LPL165 | DF4-165 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2084 | beam-bracings | 2046DF41LPL166 | DF4-166 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2085 | beam-bracings | 2046DF41LPL167 | DF4-167 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2086 | beam-bracings | 2046DF41LPL168 | DF4-168 | PL10*170 | 1 | 4.67 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 10/11/2014 | 12 |
| 2087 | beam-bracings | 2046DF41TR73 | DF4-73 | SHS300*10 | 1 | 2316.27 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 17/12/2014 | 19 |
| 2088 | beam-bracings | 2046DF41V55 | DF4-55 | HEB500 | 1 | 885.08 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 18/07/2014 | 01/12/2014 | 16 |
| 2089 | beam-bracings | 2046EF41B72 | EF4-72 | SHS300*10 | 1 | 742.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 17/12/2014 | 19 |
| 2090 | beam-bracings | 2046EF41B73 | EF4-73 | SHS300*10 | 1 | 742.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 2091 | beam-bracings | 2046EF41B74 | EF4-74 | SHS300*10 | 1 | 765.99 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 12 |
| 2092 | beam-bracings | 2046EF41B75 | EF4-75 | HEB300 | 1 | 221.88 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2093 | beam-bracings | 2046EF41B76 | EF4-76 | HEA220 | 1 | 106.33 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2094 | beam-bracings | 2046EF41B77 | EF4-77 | HEA220 | 1 | 102.21 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2095 | beam-bracings | 2046EF41BR78 | EF4-78 | CHS139.7*8.0 | 1 | 67.06 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2096 | beam-bracings | 2046EF41BR79 | EF4-79 | CHS139.7*8.0 | 1 | 67.06 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2097 | beam-bracings | 2046EF41BR80 | EF4-80 | CHS139.7*8.0 | 1 | 53.00 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2098 | beam-bracings | 2046EF41BR81 | EF4-81 | CHS139.7*8.0 | 1 | 53.00 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2099 | beam-bracings | 2046EF41LPL49 | EF4-49 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2100 | beam-bracings | 2046EF41LPL50 | EF4-50 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2101 | beam-bracings | 2046EF41LPL51 | EF4-51 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2102 | beam-bracings | 2046EF41LPL52 | EF4-52 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2103 | beam-bracings | 2046EF41LPL55 | EF4-55 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2104 | beam-bracings | 2046EF41LPL56 | EF4-56 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2105 | beam-bracings | 2046EF41LPL57 | EF4-57 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2106 | beam-bracings | 2046EF41LPL58 | EF4-58 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2107 | beam-bracings | 2046EF41LPL59 | EF4-59 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2108 | beam-bracings | 2046EF41LPL60 | EF4-60 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2109 | beam-bracings | 2046EF41LPL62 | EF4-62 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2110 | beam-bracings | 2046EF41LPL63 | EF4-63 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2111 | beam-bracings | 2046EF41LPL64 | EF4-64 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2112 | beam-bracings | 2046EF41LPL65 | EF4-65 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2113 | beam-bracings | 2046EF41LPL66 | EF4-66 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2114 | beam-bracings | 2046EF41LPL67 | EF4-67 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2115 | beam-bracings | 2046EF41LPL68 | EF4-68 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2116 | beam-bracings | 2046EF41LPL69 | EF4-69 | PL10*330 | 1 | 11.14 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2117 | beam-bracings | 2046EF41LPL153 | EF4-153 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2118 | beam-bracings | 2046EF41LPL154 | EF4-154 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2119 | beam-bracings | 2046EF41LPL155 | EF4-155 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2120 | beam-bracings | 2046EF41LPL156 | EF4-156 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2121 | beam-bracings | 2046EF41LPL157 | EF4-157 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2122 | beam-bracings | 2046EF41LPL158 | EF4-158 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2123 | beam-bracings | 2046EF41LPL159 | EF4-159 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2124 | beam-bracings | 2046EF41LPL160 | EF4-160 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2125 | beam-bracings | 2046EF41LPL161 | EF4-161 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2126 | beam-bracings | 2046EF41LPL162 | EF4-162 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2127 | beam-bracings | 2046EF41LPL163 | EF4-163 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2128 | beam-bracings | 2046EF41LPL164 | EF4-164 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2129 | beam-bracings | 2046EF41LPL165 | EF4-165 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2130 | beam-bracings | 2046EF41LPL166 | EF4-166 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2131 | beam-bracings | 2046EF41LPL167 | EF4-167 | PL10*170 | 1 | 4.67 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2132 | beam-bracings | 2046EF41TR71 | EF4-71 | SHS300*10 | 1 | 2316.27 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 06/01/2015 | 20 |
| 2133 | beam-bracings | 2046EF41V53 | EF4-53 | HEB500 | 1 | 885.08 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2134 | beam-bracings | 2046FF41B72 | FF4-72 | SHS300*10 | 1 | 742.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 2135 | beam-bracings | 2046FF41B73 | FF4-73 | SHS300*10 | 1 | 742.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 2136 | beam-bracings | 2046FF41B74 | FF4-74 | SHS300*10 | 1 | 765.99 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2137 | beam-bracings | 2046FF41B75 | FF4-75 | HEB300 | 1 | 221.88 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2138 | beam-bracings | 2046FF41B76 | FF4-76 | HEA220 | 1 | 106.33 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2139 | beam-bracings | 2046FF41B77 | FF4-77 | HEA220 | 1 | 102.21 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2140 | beam-bracings | 2046FF41BR78 | FF4-78 | CHS139.7*8.0 | 1 | 67.06 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2141 | beam-bracings | 2046FF41BR79 | FF4-79 | CHS139.7*8.0 | 1 | 67.06 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 03/12/2014 | 17 |
| 2142 | beam-bracings | 2046FF41BR80 | FF4-80 | CHS139.7*8.0 | 1 | 53.00 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2143 | beam-bracings | 2046FF41BR81 | FF4-81 | CHS139.7*8.0 | 1 | 53.00 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2144 | beam-bracings | 2046FF41LPL49 | FF4-49 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2145 | beam-bracings | 2046FF41LPL50 | FF4-50 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2146 | beam-bracings | 2046FF41LPL51 | FF4-51 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2147 | beam-bracings | 2046FF41LPL52 | FF4-52 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2148 | beam-bracings | 2046FF41LPL55 | FF4-55 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2149 | beam-bracings | 2046FF41LPL56 | FF4-56 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2150 | beam-bracings | 2046FF41LPL57 | FF4-57 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2151 | beam-bracings | 2046FF41LPL58 | FF4-58 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2152 | beam-bracings | 2046FF41LPL59 | FF4-59 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2153 | beam-bracings | 2046FF41LPL60 | FF4-60 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2154 | beam-bracings | 2046FF41LPL61 | FF4-61 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2155 | beam-bracings | 2046FF41LPL62 | FF4-62 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2156 | beam-bracings | 2046FF41LPL63 | FF4-63 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2157 | beam-bracings | 2046FF41LPL64 | FF4-64 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2158 | beam-bracings | 2046FF41LPL65 | FF4-65 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2159 | beam-bracings | 2046FF41LPL66 | FF4-66 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2160 | beam-bracings | 2046FF41LPL67 | FF4-67 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2161 | beam-bracings | 2046FF41LPL68 | FF4-68 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2162 | beam-bracings | 2046FF41LPL69 | FF4-69 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2163 | beam-bracings | 2046FF41LPL70 | FF4-70 | PL10*330 | 1 | 11.14 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2164 | beam-bracings | 2046FF41LPL153 | FF4-153 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2165 | beam-bracings | 2046FF41LPL154 | FF4-154 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2166 | beam-bracings | 2046FF41LPL155 | FF4-155 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2167 | beam-bracings | 2046FF41LPL156 | FF4-156 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2168 | beam-bracings | 2046FF41LPL157 | FF4-157 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2169 | beam-bracings | 2046FF41LPL158 | FF4-158 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2170 | beam-bracings | 2046FF41LPL159 | FF4-159 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2171 | beam-bracings | 2046FF41LPL160 | FF4-160 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2172 | beam-bracings | 2046FF41LPL161 | FF4-161 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2173 | beam-bracings | 2046FF41LPL162 | FF4-162 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2174 | beam-bracings | 2046FF41LPL163 | FF4-163 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2175 | beam-bracings | 2046FF41LPL164 | FF4-164 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2176 | beam-bracings | 2046FF41LPL165 | FF4-165 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2177 | beam-bracings | 2046FF41LPL166 | FF4-166 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2178 | beam-bracings | 2046FF41LPL167 | FF4-167 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2179 | beam-bracings | 2046FF41LPL168 | FF4-168 | PL10*170 | 1 | 4.67 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2180 | beam-bracings | 2046FF41TR71 | FF4-71 | SHS300*10 | 1 | 2316.27 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 06/01/2015 | 20 |
| 2181 | beam-bracings | 2046FF41V53 | FF4-53 | HEB500 | 1 | 885.08 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2182 | beam-bracings | 2046GF41B72 | GF4-72 | SHS300*10 | 1 | 742.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 10/11/2014 | 11 |
| 2183 | beam-bracings | 2046GF41B73 | GF4-73 | SHS300*10 | 1 | 742.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 2184 | beam-bracings | 2046GF41B74 | GF4-74 | SHS300*10 | 1 | 765.99 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 31/10/2014 | 09 |
| 2185 | beam-bracings | 2046GF41B75 | GF4-75 | HEB300 | 1 | 221.88 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2186 | beam-bracings | 2046GF41B76 | GF4-76 | HEA220 | 1 | 106.33 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2187 | beam-bracings | 2046GF41B77 | GF4-77 | HEA220 | 1 | 102.21 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 2188 | beam-bracings | 2046GF41BR78 | GF4-78 | CHS139.7*8.0 | 1 | 67.06 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2189 | beam-bracings | 2046GF41BR79 | GF4-79 | CHS139.7*8.0 | 1 | 67.06 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2190 | beam-bracings | 2046GF41BR80 | GF4-80 | CHS139.7*8.0 | 1 | 53.00 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2191 | beam-bracings | 2046GF41BR81 | GF4-81 | CHS139.7*8.0 | 1 | 53.00 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2192 | beam-bracings | 2046GF41LPL59 | GF4-59 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2193 | beam-bracings | 2046GF41LPL60 | GF4-60 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2194 | beam-bracings | 2046GF41LPL61 | GF4-61 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2195 | beam-bracings | 2046GF41LPL62 | GF4-62 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2196 | beam-bracings | 2046GF41LPL63 | GF4-63 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2197 | beam-bracings | 2046GF41LPL64 | GF4-64 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2198 | beam-bracings | 2046GF41LPL65 | GF4-65 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2199 | beam-bracings | 2046GF41LPL66 | GF4-66 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2200 | beam-bracings | 2046GF41LPL153 | GF4-153 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2201 | beam-bracings | 2046GF41LPL154 | GF4-154 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2202 | beam-bracings | 2046GF41LPL155 | GF4-155 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2203 | beam-bracings | 2046GF41LPL156 | GF4-156 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2204 | beam-bracings | 2046GF41LPL158 | GF4-158 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2205 | beam-bracings | 2046GF41LPL160 | GF4-160 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2206 | beam-bracings | 2046GF41LPL161 | GF4-161 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2207 | beam-bracings | 2046GF41LPL162 | GF4-162 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2208 | beam-bracings | 2046GF41LPL163 | GF4-163 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2209 | beam-bracings | 2046GF41LPL164 | GF4-164 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2210 | beam-bracings | 2046GF41LPL165 | GF4-165 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2211 | beam-bracings | 2046GF41LPL166 | GF4-166 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2212 | beam-bracings | 2046GF41LPL167 | GF4-167 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2213 | beam-bracings | 2046GF41LPL168 | GF4-168 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2214 | beam-bracings | 2046GF41LPL169 | GF4-169 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2215 | beam-bracings | 2046GF41LPL170 | GF4-170 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2216 | beam-bracings | 2046GF41LPL171 | GF4-171 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2217 | beam-bracings | 2046GF41LPL172 | GF4-172 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2218 | beam-bracings | 2046GF41LPL173 | GF4-173 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2219 | beam-bracings | 2046GF41LPL174 | GF4-174 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2220 | beam-bracings | 2046GF41LPL175 | GF4-175 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2221 | beam-bracings | 2046GF41LPL176 | GF4-176 | PL10*330 | 1 | 11.14 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2222 | beam-bracings | 2046GF41LPL177 | GF4-177 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2223 | beam-bracings | 2046GF41LPL178 | GF4-178 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2224 | beam-bracings | 2046GF41LPL179 | GF4-179 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2225 | beam-bracings | 2046GF41LPL180 | GF4-180 | PL10*170 | 1 | 4.67 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 22/01/2015 | 25 |
| 2226 | beam-bracings | 2046GF41TR71 | GF4-71 | SHS300*10 | 1 | 2316.27 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |
| 2227 | beam-bracings | 2046GF41V53 | GF4-53 | HEB500 | 1 | 885.08 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2228 | beam-bracings | 2046HF41B72 | HF4-72 | SHS300*10 | 1 | 742.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 2229 | beam-bracings | 2046HF41B73 | HF4-73 | SHS300*10 | 1 | 742.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2230 | beam-bracings | 2046HF41B74 | HF4-74 | SHS300*10 | 1 | 765.99 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 2231 | beam-bracings | 2046HF41B75 | HF4-75 | HEB300 | 1 | 221.88 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 06/01/2015 | 20 |
| 2232 | beam-bracings | 2046HF41B77 | HF4-77 | HEA220 | 1 | 106.33 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2233 | beam-bracings | 2046HF41B78 | HF4-78 | HEA220 | 1 | 102.21 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2234 | beam-bracings | 2046HF41BR79 | HF4-79 | CHS139.7*8.0 | 1 | 67.06 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2235 | beam-bracings | 2046HF41BR80 | HF4-80 | CHS139.7*8.0 | 1 | 67.06 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2236 | beam-bracings | 2046HF41BR81 | HF4-81 | CHS139.7*8.0 | 1 | 53.00 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2237 | beam-bracings | 2046HF41BR82 | HF4-82 | CHS139.7*8.0 | 1 | 53.00 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2238 | beam-bracings | 2046HF41LPL49 | HF4-49 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2239 | beam-bracings | 2046HF41LPL50 | HF4-50 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2240 | beam-bracings | 2046HF41LPL51 | HF4-51 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2241 | beam-bracings | 2046HF41LPL52 | HF4-52 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2242 | beam-bracings | 2046HF41LPL55 | HF4-55 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2243 | beam-bracings | 2046HF41LPL56 | HF4-56 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2244 | beam-bracings | 2046HF41LPL57 | HF4-57 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2245 | beam-bracings | 2046HF41LPL58 | HF4-58 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2246 | beam-bracings | 2046HF41LPL59 | HF4-59 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2247 | beam-bracings | 2046HF41LPL60 | HF4-60 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 02/02/2015 | 30 |
| 2248 | beam-bracings | 2046HF41LPL61 | HF4-61 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2249 | beam-bracings | 2046HF41LPL62 | HF4-62 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2250 | beam-bracings | 2046HF41LPL63 | HF4-63 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2251 | beam-bracings | 2046HF41LPL64 | HF4-64 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2252 | beam-bracings | 2046HF41LPL65 | HF4-65 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2253 | beam-bracings | 2046HF41LPL66 | HF4-66 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2254 | beam-bracings | 2046HF41LPL67 | HF4-67 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2255 | beam-bracings | 2046HF41LPL68 | HF4-68 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2256 | beam-bracings | 2046HF41LPL69 | HF4-69 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2257 | beam-bracings | 2046HF41LPL70 | HF4-70 | PL10*330 | 1 | 11.14 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 28/01/2015 | 28 |
| 2258 | beam-bracings | 2046HF41LPL155 | HF4-155 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2259 | beam-bracings | 2046HF41LPL156 | HF4-156 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2260 | beam-bracings | 2046HF41LPL157 | HF4-157 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2261 | beam-bracings | 2046HF41LPL158 | HF4-158 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2262 | beam-bracings | 2046HF41LPL159 | HF4-159 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2263 | beam-bracings | 2046HF41LPL160 | HF4-160 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2264 | beam-bracings | 2046HF41LPL161 | HF4-161 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2265 | beam-bracings | 2046HF41LPL162 | HF4-162 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2266 | beam-bracings | 2046HF41LPL163 | HF4-163 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2267 | beam-bracings | 2046HF41LPL164 | HF4-164 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2268 | beam-bracings | 2046HF41LPL165 | HF4-165 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2269 | beam-bracings | 2046HF41LPL166 | HF4-166 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2270 | beam-bracings | 2046HF41LPL167 | HF4-167 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2271 | beam-bracings | 2046HF41LPL168 | HF4-168 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2272 | beam-bracings | 2046HF41LPL169 | HF4-169 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2273 | beam-bracings | 2046HF41LPL170 | HF4-170 | PL10*170 | 1 | 4.67 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2274 | beam-bracings | 2046HF41TR71 | HF4-71 | SHS300*10 | 1 | 2316.27 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2275 | beam-bracings | 2046HF41V53 | HF4-53 | HEB500 | 1 | 885.08 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2276 | beam-bracings | 2046IF41B72 | IF4-72 | SHS300*10 | 1 | 742.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 29/10/2014 | 08 |
| 2277 | beam-bracings | 2046IF41B73 | IF4-73 | SHS300*10 | 1 | 742.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 2278 | beam-bracings | 2046IF41B74 | IF4-74 | SHS300*10 | 1 | 765.99 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 04/11/2014 | 10 |
| 2279 | beam-bracings | 2046IF41B75 | IF4-75 | HEB300 | 1 | 221.88 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 17/12/2014 | 19 |
| 2280 | beam-bracings | 2046IF41B76 | IF4-76 | HEB300 | 1 | 221.88 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2281 | beam-bracings | 2046IF41B77 | IF4-77 | HEA220 | 1 | 106.33 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2282 | beam-bracings | 2046IF41B78 | IF4-78 | HEA220 | 1 | 102.21 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2283 | beam-bracings | 2046IF41BR79 | IF4-79 | CHS139.7*8.0 | 1 | 67.06 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2284 | beam-bracings | 2046IF41BR80 | IF4-80 | CHS139.7*8.0 | 1 | 67.06 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2285 | beam-bracings | 2046IF41BR81 | IF4-81 | CHS139.7*8.0 | 1 | 53.00 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2286 | beam-bracings | 2046IF41BR82 | IF4-82 | CHS139.7*8.0 | 1 | 53.00 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2287 | beam-bracings | 2046IF41LPL49 | IF4-49 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2288 | beam-bracings | 2046IF41LPL50 | IF4-50 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2289 | beam-bracings | 2046IF41LPL51 | IF4-51 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2290 | beam-bracings | 2046IF41LPL52 | IF4-52 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2291 | beam-bracings | 2046IF41LPL55 | IF4-55 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2292 | beam-bracings | 2046IF41LPL56 | IF4-56 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2293 | beam-bracings | 2046IF41LPL57 | IF4-57 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2294 | beam-bracings | 2046IF41LPL58 | IF4-58 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2295 | beam-bracings | 2046IF41LPL59 | IF4-59 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2296 | beam-bracings | 2046IF41LPL60 | IF4-60 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2297 | beam-bracings | 2046IF41LPL61 | IF4-61 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2298 | beam-bracings | 2046IF41LPL62 | IF4-62 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2299 | beam-bracings | 2046IF41LPL63 | IF4-63 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2300 | beam-bracings | 2046IF41LPL64 | IF4-64 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2301 | beam-bracings | 2046IF41LPL65 | IF4-65 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2302 | beam-bracings | 2046IF41LPL66 | IF4-66 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2303 | beam-bracings | 2046IF41LPL67 | IF4-67 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2304 | beam-bracings | 2046IF41LPL68 | IF4-68 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2305 | beam-bracings | 2046IF41LPL69 | IF4-69 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2306 | beam-bracings | 2046IF41LPL70 | IF4-70 | PL10*330 | 1 | 11.14 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2307 | beam-bracings | 2046IF41LPL155 | IF4-155 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2308 | beam-bracings | 2046IF41LPL157 | IF4-157 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2309 | beam-bracings | 2046IF41LPL158 | IF4-158 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2310 | beam-bracings | 2046IF41LPL159 | IF4-159 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2311 | beam-bracings | 2046IF41LPL160 | IF4-160 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2312 | beam-bracings | 2046IF41LPL161 | IF4-161 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2313 | beam-bracings | 2046IF41LPL162 | IF4-162 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2314 | beam-bracings | 2046IF41LPL163 | IF4-163 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2315 | beam-bracings | 2046IF41LPL164 | IF4-164 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2316 | beam-bracings | 2046IF41LPL165 | IF4-165 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2317 | beam-bracings | 2046IF41LPL166 | IF4-166 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2318 | beam-bracings | 2046IF41LPL167 | IF4-167 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2319 | beam-bracings | 2046IF41LPL168 | IF4-168 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2320 | beam-bracings | 2046IF41LPL169 | IF4-169 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2321 | beam-bracings | 2046IF41LPL170 | IF4-170 | PL10*170 | 1 | 4.67 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2322 | beam-bracings | 2046IF41TR71 | IF4-71 | SHS300*10 | 1 | 2316.27 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 10/12/2014 | 18 |

### Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2323 | beam-bracings | 2046IF41V53 | IF4-53 | HEB500 | 1 | 885.08 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2324 | beam-bracings | 2046JF41B73 | JF4-73 | SHS300*10 | 1 | 742.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 2325 | beam-bracings | 2046JF41B74 | JF4-74 | SHS300*10 | 1 | 742.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 14/11/2014 | 13 |
| 2326 | beam-bracings | 2046JF41B75 | JF4-75 | SHS300*10 | 1 | 765.99 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2327 | beam-bracings | 2046JF41B77 | JF4-77 | HEB300 | 1 | 221.88 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2328 | beam-bracings | 2046JF41B78 | JF4-78 | HEB300 | 1 | 221.88 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2329 | beam-bracings | 2046JF41B79 | JF4-79 | HEA220 | 1 | 106.33 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 01/12/2014 | 16 |
| 2330 | beam-bracings | 2046JF41B80 | JF4-80 | HEA220 | 1 | 102.21 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 24/11/2014 | 14 |
| 2331 | beam-bracings | 2046JF41BR81 | JF4-81 | CHS139.7*8.0 | 1 | 67.06 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2332 | beam-bracings | 2046JF41BR82 | JF4-82 | CHS139.7*8.0 | 1 | 67.06 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2333 | beam-bracings | 2046JF41BR83 | JF4-83 | CHS139.7*8.0 | 1 | 53.00 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2334 | beam-bracings | 2046JF41BR84 | JF4-84 | CHS139.7*8.0 | 1 | 53.00 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 27/11/2014 | 15 |
| 2335 | beam-bracings | 2046JF41LPL37 | JF4-37 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2336 | beam-bracings | 2046JF41LPL38 | JF4-38 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2337 | beam-bracings | 2046JF41LPL39 | JF4-39 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2338 | beam-bracings | 2046JF41LPL40 | JF4-40 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2339 | beam-bracings | 2046JF41LPL41 | JF4-41 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2340 | beam-bracings | 2046JF41LPL43 | JF4-43 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2341 | beam-bracings | 2046JF41LPL44 | JF4-44 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2342 | beam-bracings | 2046JF41LPL45 | JF4-45 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2343 | beam-bracings | 2046JF41LPL46 | JF4-46 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2344 | beam-bracings | 2046JF41LPL47 | JF4-47 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2345 | beam-bracings | 2046JF41LPL48 | JF4-48 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2346 | beam-bracings | 2046JF41LPL49 | JF4-49 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2347 | beam-bracings | 2046JF41LPL50 | JF4-50 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2348 | beam-bracings | 2046JF41LPL51 | JF4-51 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2349 | beam-bracings | 2046JF41LPL52 | JF4-52 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2350 | beam-bracings | 2046JF41LPL55 | JF4-55 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2351 | beam-bracings | 2046JF41LPL56 | JF4-56 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2352 | beam-bracings | 2046JF41LPL57 | JF4-57 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2353 | beam-bracings | 2046JF41LPL58 | JF4-58 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2354 | beam-bracings | 2046JF41LPL59 | JF4-59 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2355 | beam-bracings | 2046JF41LPL60 | JF4-60 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2356 | beam-bracings | 2046JF41LPL61 | JF4-61 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2357 | beam-bracings | 2046JF41LPL62 | JF4-62 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2358 | beam-bracings | 2046JF41LPL63 | JF4-63 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2359 | beam-bracings | 2046JF41LPL64 | JF4-64 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2360 | beam-bracings | 2046JF41LPL65 | JF4-65 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2361 | beam-bracings | 2046JF41LPL66 | JF4-66 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2362 | beam-bracings | 2046JF41LPL67 | JF4-67 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2363 | beam-bracings | 2046JF41LPL68 | JF4-68 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2364 | beam-bracings | 2046JF41LPL69 | JF4-69 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2365 | beam-bracings | 2046JF41LPL70 | JF4-70 | PL10*330 | 1 | 11.14 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2366 | beam-bracings | 2046JF41LPL162 | JF4-162 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2367 | beam-bracings | 2046JF41LPL163 | JF4-163 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2368 | beam-bracings | 2046JF41LPL164 | JF4-164 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2369 | beam-bracings | 2046JF41LPL165 | JF4-165 | PL10*170 | 1 | 4.67 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 09/01/2015 | 21 |
| 2370 | beam-bracings | 2046JF41TR72 | JF4-72 | SHS300*10 | 1 | 2316.27 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 23/07/2014 | 17/12/2014 | 19 |
| 2371 | beam-bracings | 2046AF24B225 | AF2-225 | SHS300*10 | 1 | 737.91 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2372 | beam-bracings | 2046AF24B226 | AF2-226 | SHS300*10 | 1 | 720.11 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2373 | beam-bracings | 2046AF24B227 | AF2-227 | HEB300 | 1 | 313.89 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2374 | beam-bracings | 2046AF24B228 | AF2-228 | HEB300 | 1 | 313.89 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2375 | beam-bracings | 2046AF24BR207 | AF2-207 | CHS355.6*10.0 | 1 | 518.10 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2376 | beam-bracings | 2046AF24BR208 | AF2-208 | CHS355.6*10.0 | 1 | 518.10 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2377 | beam-bracings | 2046AF24BR209 | AF2-209 | CHS323.9*8.0 | 1 | 335.54 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2378 | beam-bracings | 2046AF24BR210 | AF2-210 | CHS323.9*8.0 | 1 | 369.81 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2379 | beam-bracings | 2046AF24BR211 | AF2-211 | CHS323.9*8.0 | 1 | 334.40 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 31/10/2014 | 09 |
| 2380 | beam-bracings | 2046AF24BR212 | AF2-212 | CHS323.9*8.0 | 1 | 362.95 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2381 | beam-bracings | 2046AF24BR213 | AF2-213 | CHS323.9*8.0 | 1 | 767.63 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/11/2014 | 11 |
| 2382 | beam-bracings | 2046AF24BR214 | AF2-214 | CHS323.9*8.0 | 1 | 821.29 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2383 | beam-bracings | 2046AF24BR215 | AF2-215 | CHS323.9*8.0 | 1 | 338.16 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2384 | beam-bracings | 2046AF24BR216 | AF2-216 | CHS323.9*8.0 | 1 | 373.95 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2385 | beam-bracings | 2046AF24BR217 | AF2-217 | CHS323.9*8.0 | 1 | 362.95 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2386 | beam-bracings | 2046AF24BR218 | AF2-218 | CHS323.9*8.0 | 1 | 803.44 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 17/12/2014 | 19 |
| 2387 | beam-bracings | 2046AF24BR219 | AF2-219 | CHS323.9*8.0 | 1 | 332.23 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2388 | beam-bracings | 2046AF24BR220 | AF2-220 | CHS323.9*8.0 | 1 | 760.56 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2389 | beam-bracings | 2046AF24BR221 | AF2-221 | CHS323.9*6.3 | 1 | 232.23 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2390 | beam-bracings | 2046AF24BR222 | AF2-222 | CHS323.9*6.3 | 1 | 282.02 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2391 | beam-bracings | 2046AF24BR223 | AF2-223 | CHS323.9*6.3 | 1 | 282.02 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2392 | beam-bracings | 2046AF24BR224 | AF2-224 | CHS323.9*6.3 | 1 | 232.23 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 20/04/2015 | 73 |
| 2393 | beam-bracings | 2046AF24LPL175 | AF2-175 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2394 | beam-bracings | 2046AF24LPL176 | AF2-176 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/08/2015 | 166 |
| 2395 | beam-bracings | 2046AF24LPL177 | AF2-177 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2396 | beam-bracings | 2046AF24LPL178 | AF2-178 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2397 | beam-bracings | 2046AF24LPL179 | AF2-179 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2398 | beam-bracings | 2046AF24LPL180 | AF2-180 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2399 | beam-bracings | 2046AF24LPL181 | AF2-181 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2400 | beam-bracings | 2046AF24LPL182 | AF2-182 | PL20*390 | 1 | 37.35 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/08/2015 | 166 |
| 2401 | beam-bracings | 2046AF24LPL183 | AF2-183 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2402 | beam-bracings | 2046AF24LPL184 | AF2-184 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2403 | beam-bracings | 2046AF24LPL185 | AF2-185 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2404 | beam-bracings | 2046AF24LPL186 | AF2-186 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2405 | beam-bracings | 2046AF24LPL187 | AF2-187 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2406 | beam-bracings | 2046AF24LPL188 | AF2-188 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/08/2015 | 166 |
| 2407 | beam-bracings | 2046AF24LPL189 | AF2-189 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2408 | beam-bracings | 2046AF24LPL190 | AF2-190 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2409 | beam-bracings | 2046AF24LPL191 | AF2-191 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2410 | beam-bracings | 2046AF24LPL192 | AF2-192 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2411 | beam-bracings | 2046AF24LPL193 | AF2-193 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2412 | beam-bracings | 2046AF24LPL194 | AF2-194 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/08/2015 | 166 |
| 2413 | beam-bracings | 2046AF24LPL195 | AF2-195 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2414 | beam-bracings | 2046AF24LPL196 | AF2-196 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2415 | beam-bracings | 2046AF24LPL197 | AF2-197 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2416 | beam-bracings | 2046AF24LPL198 | AF2-198 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2417 | beam-bracings | 2046AF24LPL199 | AF2-199 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2418 | beam-bracings | 2046AF24LPL200 | AF2-200 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2419 | beam-bracings | 2046AF24LPL201 | AF2-201 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2420 | beam-bracings | 2046AF24LPL202 | AF2-202 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2421 | beam-bracings | 2046AF24LPL203 | AF2-203 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2422 | beam-bracings | 2046AF24LPL204 | AF2-204 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2423 | beam-bracings | 2046AF24LPL205 | AF2-205 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2424 | beam-bracings | 2046AF24LPL206 | AF2-206 | PL10*330 | 1 | 11.14 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2425 | beam-bracings | 2046AF24LPL229 | AF2-229 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2426 | beam-bracings | 2046AF24LPL230 | AF2-230 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2427 | beam-bracings | 2046AF24LPL231 | AF2-231 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2428 | beam-bracings | 2046AF24LPL232 | AF2-232 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2429 | beam-bracings | 2046AF24LPL233 | AF2-233 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2430 | beam-bracings | 2046AF24LPL234 | AF2-234 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2431 | beam-bracings | 2046AF24LPL235 | AF2-235 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2432 | beam-bracings | 2046AF24LPL236 | AF2-236 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2433 | beam-bracings | 2046AF24LPL237 | AF2-237 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2434 | beam-bracings | 2046AF24LPL238 | AF2-238 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2435 | beam-bracings | 2046AF24LPL239 | AF2-239 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2436 | beam-bracings | 2046AF24LPL240 | AF2-240 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2437 | beam-bracings | 2046AF24LPL241 | AF2-241 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2438 | beam-bracings | 2046AF24LPL242 | AF2-242 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2439 | beam-bracings | 2046AF24LPL243 | AF2-243 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2440 | beam-bracings | 2046AF24LPL244 | AF2-244 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2441 | beam-bracings | 2046AF24LPL245 | AF2-245 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2442 | beam-bracings | 2046AF24LPL246 | AF2-246 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2443 | beam-bracings | 2046AF24LPL247 | AF2-247 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2444 | beam-bracings | 2046AF24LPL248 | AF2-248 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2445 | beam-bracings | 2046AF24LPL249 | AF2-249 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2446 | beam-bracings | 2046AF24LPL250 | AF2-250 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2447 | beam-bracings | 2046AF24LPL251 | AF2-251 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2448 | beam-bracings | 2046AF24LPL252 | AF2-252 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2449 | beam-bracings | 2046AF24LPL253 | AF2-253 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2450 | beam-bracings | 2046AF24LPL254 | AF2-254 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2451 | beam-bracings | 2046AF24LPL255 | AF2-255 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2452 | beam-bracings | 2046AF24LPL256 | AF2-256 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2453 | beam-bracings | 2046AF24LPL257 | AF2-257 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2454 | beam-bracings | 2046AF24LPL258 | AF2-258 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2455 | beam-bracings | 2046AF24LPL259 | AF2-259 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2456 | beam-bracings | 2046AF24LPL260 | AF2-260 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2457 | beam-bracings | 2046AF24LPL261 | AF2-261 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2458 | beam-bracings | 2046AF24LPL262 | AF2-262 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2459 | beam-bracings | 2046AF24LPL263 | AF2-263 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2460 | beam-bracings | 2046AF24LPL264 | AF2-264 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2461 | beam-bracings | 2046AF24LPL265 | AF2-265 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2462 | beam-bracings | 2046AF24LPL266 | AF2-266 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2463 | beam-bracings | 2046AF24LPL267 | AF2-267 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2464 | beam-bracings | 2046AF24LPL268 | AF2-268 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2465 | beam-bracings | 2046AF24LPL269 | AF2-269 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2466 | beam-bracings | 2046AF24LPL270 | AF2-270 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2467 | beam-bracings | 2046AF24LPL271 | AF2-271 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 23/10/2014 | 06 |
| 2468 | beam-bracings | 2046AF24LPL272 | AF2-272 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2469 | beam-bracings | 2046AF24LPL273 | AF2-273 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2470 | beam-bracings | 2046AF24LPL274 | AF2-274 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2471 | beam-bracings | 2046AF24LPL275 | AF2-275 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2472 | beam-bracings | 2046AF24LPL276 | AF2-276 | PL15*350 | 1 | 17.72 | A | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2473 | beam-bracings | 2046BF24B158 | BF2-158 | SHS300*10 | 1 | 737.91 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2474 | beam-bracings | 2046BF24B159 | BF2-159 | SHS300*10 | 1 | 720.11 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2475 | beam-bracings | 2046BF24B160 | BF2-160 | HEB300 | 1 | 313.89 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 17/12/2014 | 19 |
| 2476 | beam-bracings | 2046BF24BR143 | BF2-143 | CHS355.6*10.0 | 1 | 518.10 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2477 | beam-bracings | 2046BF24BR144 | BF2-144 | CHS323.9*8.0 | 1 | 338.16 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2478 | beam-bracings | 2046BF24BR145 | BF2-145 | CHS323.9*8.0 | 1 | 373.95 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2479 | beam-bracings | 2046BF24BR146 | BF2-146 | CHS323.9*8.0 | 1 | 332.23 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2480 | beam-bracings | 2046BF24BR147 | BF2-147 | CHS323.9*8.0 | 1 | 362.95 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2481 | beam-bracings | 2046BF24BR148 | BF2-148 | CHS323.9*8.0 | 1 | 335.54 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2482 | beam-bracings | 2046BF24BR149 | BF2-149 | CHS323.9*8.0 | 1 | 369.81 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2483 | beam-bracings | 2046BF24BR150 | BF2-150 | CHS323.9*8.0 | 1 | 767.63 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2484 | beam-bracings | 2046BF24BR151 | BF2-151 | CHS323.9*8.0 | 1 | 821.29 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2485 | beam-bracings | 2046BF24BR152 | BF2-152 | CHS323.9*8.0 | 1 | 334.40 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2486 | beam-bracings | 2046BF24BR153 | BF2-153 | CHS323.9*8.0 | 1 | 362.95 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2487 | beam-bracings | 2046BF24BR154 | BF2-154 | CHS323.9*8.0 | 1 | 760.56 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2488 | beam-bracings | 2046BF24BR155 | BF2-155 | CHS323.9*8.0 | 1 | 803.44 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2489 | beam-bracings | 2046BF24BR156 | BF2-156 | CHS323.9*6.3 | 1 | 282.02 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2490 | beam-bracings | 2046BF24BR157 | BF2-157 | CHS323.9*6.3 | 1 | 232.23 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 31/10/2014 | 09 |
| 2491 | beam-bracings | 2046BF24LPL123 | BF2-123 | PL20*390 | 1 | 37.35 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 13/02/2015 | 36 |
| 2492 | beam-bracings | 2046BF24LPL124 | BF2-124 | PL20*390 | 1 | 37.35 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 13/02/2015 | 36 |
| 2493 | beam-bracings | 2046BF24LPL125 | BF2-125 | PL20*390 | 1 | 37.35 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2494 | beam-bracings | 2046BF24LPL126 | BF2-126 | PL20*390 | 1 | 37.35 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 13/02/2015 | 36 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2495 | beam-bracings | 2046BF24LPL127 | BF2-127 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2496 | beam-bracings | 2046BF24LPL128 | BF2-128 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2497 | beam-bracings | 2046BF24LPL129 | BF2-129 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2498 | beam-bracings | 2046BF24LPL130 | BF2-130 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2499 | beam-bracings | 2046BF24LPL131 | BF2-131 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2500 | beam-bracings | 2046BF24LPL132 | BF2-132 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2501 | beam-bracings | 2046BF24LPL133 | BF2-133 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2502 | beam-bracings | 2046BF24LPL134 | BF2-134 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2503 | beam-bracings | 2046BF24LPL135 | BF2-135 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2504 | beam-bracings | 2046BF24LPL136 | BF2-136 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2505 | beam-bracings | 2046BF24LPL137 | BF2-137 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2506 | beam-bracings | 2046BF24LPL138 | BF2-138 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2507 | beam-bracings | 2046BF24LPL139 | BF2-139 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2508 | beam-bracings | 2046BF24LPL140 | BF2-140 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2509 | beam-bracings | 2046BF24LPL141 | BF2-141 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2510 | beam-bracings | 2046BF24LPL142 | BF2-142 | PL10*330 | 1 | 11.14 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 02/02/2015 | 30 |
| 2511 | beam-bracings | 2046BF24LPL161 | BF2-161 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2512 | beam-bracings | 2046BF24LPL162 | BF2-162 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2513 | beam-bracings | 2046BF24LPL163 | BF2-163 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2514 | beam-bracings | 2046BF24LPL164 | BF2-164 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2515 | beam-bracings | 2046BF24LPL165 | BF2-165 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2516 | beam-bracings | 2046BF24LPL166 | BF2-166 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2517 | beam-bracings | 2046BF24LPL167 | BF2-167 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2518 | beam-bracings | 2046BF24LPL168 | BF2-168 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2519 | beam-bracings | 2046BF24LPL169 | BF2-169 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2520 | beam-bracings | 2046BF24LPL170 | BF2-170 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2521 | beam-bracings | 2046BF24LPL171 | BF2-171 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2522 | beam-bracings | 2046BF24LPL172 | BF2-172 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2523 | beam-bracings | 2046BF24LPL173 | BF2-173 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2524 | beam-bracings | 2046BF24LPL174 | BF2-174 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2525 | beam-bracings | 2046BF24LPL175 | BF2-175 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2526 | beam-bracings | 2046BF24LPL176 | BF2-176 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2527 | beam-bracings | 2046BF24LPL177 | BF2-177 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2528 | beam-bracings | 2046BF24LPL178 | BF2-178 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2529 | beam-bracings | 2046BF24LPL179 | BF2-179 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2530 | beam-bracings | 2046BF24LPL180 | BF2-180 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/11/2014 | 12 |
| 2531 | beam-bracings | 2046BF24LPL181 | BF2-181 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2532 | beam-bracings | 2046BF24LPL182 | BF2-182 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2533 | beam-bracings | 2046BF24LPL183 | BF2-183 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2534 | beam-bracings | 2046BF24LPL184 | BF2-184 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/11/2014 | 12 |
| 2535 | beam-bracings | 2046BF24LPL185 | BF2-185 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2536 | beam-bracings | 2046BF24LPL186 | BF2-186 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2537 | beam-bracings | 2046BF24LPL187 | BF2-187 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2538 | beam-bracings | 2046BF24LPL188 | BF2-188 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2539 | beam-bracings | 2046BF24LPL189 | BF2-189 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2540 | beam-bracings | 2046BF24LPL190 | BF2-190 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2541 | beam-bracings | 2046BF24LPL191 | BF2-191 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2542 | beam-bracings | 2046BF24LPL192 | BF2-192 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2543 | beam-bracings | 2046BF24LPL193 | BF2-193 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2544 | beam-bracings | 2046BF24LPL194 | BF2-194 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2545 | beam-bracings | 2046BF24LPL195 | BF2-195 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2546 | beam-bracings | 2046BF24LPL196 | BF2-196 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2547 | beam-bracings | 2046BF24LPL197 | BF2-197 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2548 | beam-bracings | 2046BF24LPL198 | BF2-198 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2549 | beam-bracings | 2046BF24LPL199 | BF2-199 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2550 | beam-bracings | 2046BF24LPL200 | BF2-200 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2551 | beam-bracings | 2046BF24LPL201 | BF2-201 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2552 | beam-bracings | 2046BF24LPL202 | BF2-202 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2553 | beam-bracings | 2046BF24LPL203 | BF2-203 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2554 | beam-bracings | 2046BF24LPL204 | BF2-204 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2555 | beam-bracings | 2046BF24LPL205 | BF2-205 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2556 | beam-bracings | 2046BF24LPL206 | BF2-206 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2557 | beam-bracings | 2046BF24LPL207 | BF2-207 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2558 | beam-bracings | 2046BF24LPL208 | BF2-208 | PL15*350 | 1 | 17.72 | B | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2559 | beam-bracings | 2046CF24B158 | CF2-158 | SHS300*10 | 1 | 737.91 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2560 | beam-bracings | 2046CF24B159 | CF2-159 | SHS300*10 | 1 | 720.11 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2561 | beam-bracings | 2046CF24B160 | CF2-160 | HEB300 | 1 | 313.89 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 06/01/2015 | 20 |
| 2562 | beam-bracings | 2046CF24BR143 | CF2-143 | CHS355.6*10.0 | 1 | 518.10 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2563 | beam-bracings | 2046CF24BR144 | CF2-144 | CHS323.9*8.0 | 1 | 338.16 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2564 | beam-bracings | 2046CF24BR145 | CF2-145 | CHS323.9*8.0 | 1 | 373.95 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 17/12/2014 | 19 |
| 2565 | beam-bracings | 2046CF24BR146 | CF2-146 | CHS323.9*8.0 | 1 | 335.54 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2566 | beam-bracings | 2046CF24BR147 | CF2-147 | CHS323.9*8.0 | 1 | 369.81 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2567 | beam-bracings | 2046CF24BR148 | CF2-148 | CHS323.9*8.0 | 1 | 767.63 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2568 | beam-bracings | 2046CF24BR149 | CF2-149 | CHS323.9*8.0 | 1 | 821.29 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2569 | beam-bracings | 2046CF24BR150 | CF2-150 | CHS323.9*8.0 | 1 | 334.40 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 17/12/2014 | 19 |
| 2570 | beam-bracings | 2046CF24BR151 | CF2-151 | CHS323.9*8.0 | 1 | 332.23 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 17/12/2014 | 19 |
| 2571 | beam-bracings | 2046CF24BR152 | CF2-152 | CHS323.9*8.0 | 1 | 760.56 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2572 | beam-bracings | 2046CF24BR153 | CF2-153 | CHS323.9*8.0 | 1 | 362.95 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2573 | beam-bracings | 2046CF24BR154 | CF2-154 | CHS323.9*8.0 | 1 | 362.95 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2574 | beam-bracings | 2046CF24BR155 | CF2-155 | CHS323.9*8.0 | 1 | 803.44 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2575 | beam-bracings | 2046CF24BR156 | CF2-156 | CHS323.9*6.3 | 1 | 282.02 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 03/12/2014 | 17 |
| 2576 | beam-bracings | 2046CF24BR157 | CF2-157 | CHS323.9*6.3 | 1 | 232.23 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2577 | beam-bracings | 2046CF24LPL123 | CF2-123 | PL20*390 | 1 | 37.35 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2578 | beam-bracings | 2046CF24LPL124 | CF2-124 | PL20*390 | 1 | 37.35 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2579 | beam-bracings | 2046CF24LPL125 | CF2-125 | PL20*390 | 1 | 37.35 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2580 | beam-bracings | 2046CF24LPL126 | CF2-126 | PL20*390 | 1 | 37.35 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2581 | beam-bracings | 2046CF24LPL127 | CF2-127 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2582 | beam-bracings | 2046CF24LPL128 | CF2-128 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2583 | beam-bracings | 2046CF24LPL129 | CF2-129 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2584 | beam-bracings | 2046CF24LPL130 | CF2-130 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2585 | beam-bracings | 2046CF24LPL131 | CF2-131 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2586 | beam-bracings | 2046CF24LPL132 | CF2-132 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2587 | beam-bracings | 2046CF24LPL133 | CF2-133 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2588 | beam-bracings | 2046CF24LPL134 | CF2-134 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2589 | beam-bracings | 2046CF24LPL135 | CF2-135 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2590 | beam-bracings | 2046CF24LPL136 | CF2-136 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2591 | beam-bracings | 2046CF24LPL137 | CF2-137 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2592 | beam-bracings | 2046CF24LPL138 | CF2-138 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2593 | beam-bracings | 2046CF24LPL139 | CF2-139 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2594 | beam-bracings | 2046CF24LPL140 | CF2-140 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2595 | beam-bracings | 2046CF24LPL141 | CF2-141 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2596 | beam-bracings | 2046CF24LPL142 | CF2-142 | PL10*330 | 1 | 11.14 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2597 | beam-bracings | 2046CF24LPL161 | CF2-161 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2598 | beam-bracings | 2046CF24LPL162 | CF2-162 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2599 | beam-bracings | 2046CF24LPL163 | CF2-163 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2600 | beam-bracings | 2046CF24LPL164 | CF2-164 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2601 | beam-bracings | 2046CF24LPL165 | CF2-165 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2602 | beam-bracings | 2046CF24LPL166 | CF2-166 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2603 | beam-bracings | 2046CF24LPL167 | CF2-167 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2604 | beam-bracings | 2046CF24LPL168 | CF2-168 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2605 | beam-bracings | 2046CF24LPL169 | CF2-169 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2606 | beam-bracings | 2046CF24LPL170 | CF2-170 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2607 | beam-bracings | 2046CF24LPL171 | CF2-171 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2608 | beam-bracings | 2046CF24LPL172 | CF2-172 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2609 | beam-bracings | 2046CF24LPL173 | CF2-173 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2610 | beam-bracings | 2046CF24LPL174 | CF2-174 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2611 | beam-bracings | 2046CF24LPL175 | CF2-175 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2612 | beam-bracings | 2046CF24LPL176 | CF2-176 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2613 | beam-bracings | 2046CF24LPL177 | CF2-177 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2614 | beam-bracings | 2046CF24LPL178 | CF2-178 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2615 | beam-bracings | 2046CF24LPL179 | CF2-179 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2616 | beam-bracings | 2046CF24LPL180 | CF2-180 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/10/2014 | 07 |
| 2617 | beam-bracings | 2046CF24LPL181 | CF2-181 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2618 | beam-bracings | 2046CF24LPL182 | CF2-182 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2619 | beam-bracings | 2046CF24LPL183 | CF2-183 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2620 | beam-bracings | 2046CF24LPL184 | CF2-184 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2621 | beam-bracings | 2046CF24LPL185 | CF2-185 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2622 | beam-bracings | 2046CF24LPL186 | CF2-186 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2623 | beam-bracings | 2046CF24LPL187 | CF2-187 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2624 | beam-bracings | 2046CF24LPL188 | CF2-188 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2625 | beam-bracings | 2046CF24LPL189 | CF2-189 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2626 | beam-bracings | 2046CF24LPL190 | CF2-190 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2627 | beam-bracings | 2046CF24LPL191 | CF2-191 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2628 | beam-bracings | 2046CF24LPL192 | CF2-192 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2629 | beam-bracings | 2046CF24LPL193 | CF2-193 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 02/02/2015 | 30 |
| 2630 | beam-bracings | 2046CF24LPL194 | CF2-194 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2631 | beam-bracings | 2046CF24LPL195 | CF2-195 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2632 | beam-bracings | 2046CF24LPL196 | CF2-196 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2633 | beam-bracings | 2046CF24LPL197 | CF2-197 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2634 | beam-bracings | 2046CF24LPL198 | CF2-198 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2635 | beam-bracings | 2046CF24LPL199 | CF2-199 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2636 | beam-bracings | 2046CF24LPL200 | CF2-200 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2637 | beam-bracings | 2046CF24LPL201 | CF2-201 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2638 | beam-bracings | 2046CF24LPL202 | CF2-202 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2639 | beam-bracings | 2046CF24LPL203 | CF2-203 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2640 | beam-bracings | 2046CF24LPL204 | CF2-204 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2641 | beam-bracings | 2046CF24LPL205 | CF2-205 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 04/11/2014 | 10 |
| 2642 | beam-bracings | 2046CF24LPL206 | CF2-206 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2643 | beam-bracings | 2046CF24LPL207 | CF2-207 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2644 | beam-bracings | 2046CF24LPL208 | CF2-208 | PL15*350 | 1 | 17.72 | C | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2645 | beam-bracings | 2046DF24B78 | DF2-78 | SHS300*10 | 1 | 751.61 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2646 | beam-bracings | 2046DF24B79 | DF2-79 | SHS300*10 | 1 | 740.80 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/11/2014 | 15 |
| 2647 | beam-bracings | 2046DF24B80 | DF2-80 | HEB300 | 1 | 313.89 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 06/01/2015 | 20 |
| 2648 | beam-bracings | 2046DF24BR75 | DF2-75 | CHS355.6*10.0 | 1 | 518.10 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2649 | beam-bracings | 2046DF24BR76 | DF2-76 | CHS323.9*6.3 | 1 | 282.02 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2650 | beam-bracings | 2046DF24BR77 | DF2-77 | CHS323.9*6.3 | 1 | 232.23 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 01/12/2014 | 16 |
| 2651 | beam-bracings | 2046DF24LPL63 | DF2-63 | PL20*390 | 1 | 37.35 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2652 | beam-bracings | 2046DF24LPL64 | DF2-64 | PL20*390 | 1 | 37.35 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2653 | beam-bracings | 2046DF24LPL65 | DF2-65 | PL20*390 | 1 | 37.35 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2654 | beam-bracings | 2046DF24LPL66 | DF2-66 | PL20*390 | 1 | 37.35 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 10/12/2014 | 18 |
| 2655 | beam-bracings | 2046DF24LPL67 | DF2-67 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2656 | beam-bracings | 2046DF24LPL68 | DF2-68 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2657 | beam-bracings | 2046DF24LPL69 | DF2-69 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2658 | beam-bracings | 2046DF24LPL70 | DF2-70 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2659 | beam-bracings | 2046DF24LPL71 | DF2-71 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2660 | beam-bracings | 2046DF24LPL72 | DF2-72 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2661 | beam-bracings | 2046DF24LPL73 | DF2-73 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 14/11/2014 | 13 |
| 2662 | beam-bracings | 2046DF24LPL74 | DF2-74 | PL15*350 | 1 | 17.72 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 24/11/2014 | 14 |
| 2663 | beam-bracings | 2046DF24LPL81 | DF2-81 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2664 | beam-bracings | 2046DF24LPL82 | DF2-82 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2665 | beam-bracings | 2046DF24LPL83 | DF2-83 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2666 | beam-bracings | 2046DF24LPL84 | DF2-84 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2667 | beam-bracings | 2046DF24LPL85 | DF2-85 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2668 | beam-bracings | 2046DF24LPL86 | DF2-86 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2669 | beam-bracings | 2046DF24LPL87 | DF2-87 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2670 | beam-bracings | 2046DF24LPL88 | DF2-88 | PL10*330 | 1 | 11.14 | D | 2 | 13.1-13.2 | Without Intumescent | Portugal | 31/07/2014 | 27/07/2015 | 155 |
| 2671 | beam-bracings | 2046AF34B211 | AF3-211 | HEB400 | 1 | 437.52 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 04/02/2015 | 31 |
| 2672 | beam-bracings | 2046AF34B212 | AF3-212 | HEB400 | 1 | 437.52 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/04/2015 | 71 |
| 2673 | beam-bracings | 2046AF34B247 | AF3-247 | SHS300*10 | 1 | 746.87 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2674 | beam-bracings | 2046AF34B248 | AF3-248 | SHS300*10 | 1 | 746.82 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2675 | beam-bracings | 2046AF34B249 | AF3-249 | SHS300*10 | 1 | 719.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2676 | beam-bracings | 2046AF34B250 | AF3-250 | SHS300*10 | 1 | 720.11 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2677 | beam-bracings | 2046AF34B251 | AF3-251 | HEB300 | 1 | 318.84 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2678 | beam-bracings | 2046AF34B252 | AF3-252 | HEB300 | 1 | 318.84 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2679 | beam-bracings | 2046AF34BR229 | AF3-229 | CHS355.6*10.0 | 1 | 564.50 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2680 | beam-bracings | 2046AF34BR230 | AF3-230 | CHS355.6*10.0 | 1 | 564.50 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2681 | beam-bracings | 2046AF34BR231 | AF3-231 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2682 | beam-bracings | 2046AF34BR232 | AF3-232 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2683 | beam-bracings | 2046AF34BR233 | AF3-233 | CHS323.9*6.3 | 1 | 300.77 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2684 | beam-bracings | 2046AF34BR234 | AF3-234 | CHS323.9*6.3 | 1 | 309.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 15/01/2015 | 23 |
| 2685 | beam-bracings | 2046AF34BR235 | AF3-235 | CHS323.9*6.3 | 1 | 669.18 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2686 | beam-bracings | 2046AF34BR236 | AF3-236 | CHS323.9*6.3 | 1 | 673.63 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2687 | beam-bracings | 2046AF34BR237 | AF3-237 | CHS323.9*6.3 | 1 | 300.77 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2688 | beam-bracings | 2046AF34BR238 | AF3-238 | CHS323.9*6.3 | 1 | 300.64 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2689 | beam-bracings | 2046AF34BR239 | AF3-239 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2690 | beam-bracings | 2046AF34BR240 | AF3-240 | CHS323.9*6.3 | 1 | 234.85 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2691 | beam-bracings | 2046AF34BR241 | AF3-241 | CHS323.9*6.3 | 1 | 636.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2692 | beam-bracings | 2046AF34BR242 | AF3-242 | CHS323.9*6.3 | 1 | 269.53 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2693 | beam-bracings | 2046AF34BR243 | AF3-243 | CHS323.9*6.3 | 1 | 269.53 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2694 | beam-bracings | 2046AF34BR244 | AF3-244 | CHS323.9*6.3 | 1 | 652.63 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2695 | beam-bracings | 2046AF34BR245 | AF3-245 | CHS323.9*6.3 | 1 | 292.49 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2696 | beam-bracings | 2046AF34BR246 | AF3-246 | CHS323.9*6.3 | 1 | 292.49 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2697 | beam-bracings | 2046AF34LPL187 | AF3-187 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2698 | beam-bracings | 2046AF34LPL188 | AF3-188 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 04/11/2014 | 10 |
| 2699 | beam-bracings | 2046AF34LPL189 | AF3-189 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2700 | beam-bracings | 2046AF34LPL190 | AF3-190 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2701 | beam-bracings | 2046AF34LPL191 | AF3-191 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2702 | beam-bracings | 2046AF34LPL192 | AF3-192 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2703 | beam-bracings | 2046AF34LPL193 | AF3-193 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2704 | beam-bracings | 2046AF34LPL194 | AF3-194 | PL20*390 | 1 | 48.37 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2705 | beam-bracings | 2046AF34LPL195 | AF3-195 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2706 | beam-bracings | 2046AF34LPL196 | AF3-196 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2707 | beam-bracings | 2046AF34LPL197 | AF3-197 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2708 | beam-bracings | 2046AF34LPL198 | AF3-198 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2709 | beam-bracings | 2046AF34LPL199 | AF3-199 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2710 | beam-bracings | 2046AF34LPL200 | AF3-200 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2711 | beam-bracings | 2046AF34LPL201 | AF3-201 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2712 | beam-bracings | 2046AF34LPL202 | AF3-202 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2713 | beam-bracings | 2046AF34LPL203 | AF3-203 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2714 | beam-bracings | 2046AF34LPL204 | AF3-204 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2715 | beam-bracings | 2046AF34LPL205 | AF3-205 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2716 | beam-bracings | 2046AF34LPL206 | AF3-206 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2717 | beam-bracings | 2046AF34LPL207 | AF3-207 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2718 | beam-bracings | 2046AF34LPL208 | AF3-208 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2719 | beam-bracings | 2046AF34LPL209 | AF3-209 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2720 | beam-bracings | 2046AF34LPL210 | AF3-210 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2721 | beam-bracings | 2046AF34LPL213 | AF3-213 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2722 | beam-bracings | 2046AF34LPL214 | AF3-214 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2723 | beam-bracings | 2046AF34LPL215 | AF3-215 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2724 | beam-bracings | 2046AF34LPL216 | AF3-216 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2725 | beam-bracings | 2046AF34LPL217 | AF3-217 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2726 | beam-bracings | 2046AF34LPL218 | AF3-218 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2727 | beam-bracings | 2046AF34LPL219 | AF3-219 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2728 | beam-bracings | 2046AF34LPL220 | AF3-220 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2729 | beam-bracings | 2046AF34LPL221 | AF3-221 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2730 | beam-bracings | 2046AF34LPL222 | AF3-222 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2731 | beam-bracings | 2046AF34LPL223 | AF3-223 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2732 | beam-bracings | 2046AF34LPL224 | AF3-224 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2733 | beam-bracings | 2046AF34LPL225 | AF3-225 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2734 | beam-bracings | 2046AF34LPL226 | AF3-226 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2735 | beam-bracings | 2046AF34LPL227 | AF3-227 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2736 | beam-bracings | 2046AF34LPL228 | AF3-228 | PL10*330 | 1 | 11.14 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2737 | beam-bracings | 2046AF34LPL253 | AF3-253 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 02/02/2015 | 30 |
| 2738 | beam-bracings | 2046AF34LPL254 | AF3-254 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2739 | beam-bracings | 2046AF34LPL255 | AF3-255 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2740 | beam-bracings | 2046AF34LPL256 | AF3-256 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2741 | beam-bracings | 2046AF34LPL257 | AF3-257 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2742 | beam-bracings | 2046AF34LPL258 | AF3-258 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2743 | beam-bracings | 2046AF34LPL259 | AF3-259 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2744 | beam-bracings | 2046AF34LPL260 | AF3-260 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2745 | beam-bracings | 2046AF34LPL261 | AF3-261 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2746 | beam-bracings | 2046AF34LPL262 | AF3-262 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2747 | beam-bracings | 2046AF34LPL263 | AF3-263 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2748 | beam-bracings | 2046AF34LPL264 | AF3-264 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2749 | beam-bracings | 2046AF34LPL265 | AF3-265 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2750 | beam-bracings | 2046AF34LPL266 | AF3-266 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2751 | beam-bracings | 2046AF34LPL267 | AF3-267 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2752 | beam-bracings | 2046AF34LPL268 | AF3-268 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2753 | beam-bracings | 2046AF34LPL269 | AF3-269 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2754 | beam-bracings | 2046AF34LPL270 | AF3-270 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2755 | beam-bracings | 2046AF34LPL271 | AF3-271 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2756 | beam-bracings | 2046AF34LPL272 | AF3-272 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 02/02/2015 | 30 |
| 2757 | beam-bracings | 2046AF34LPL273 | AF3-273 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2758 | beam-bracings | 2046AF34LPL274 | AF3-274 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2759 | beam-bracings | 2046AF34LPL275 | AF3-275 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2760 | beam-bracings | 2046AF34LPL276 | AF3-276 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2761 | beam-bracings | 2046AF34LPL277 | AF3-277 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2762 | beam-bracings | 2046AF34LPL278 | AF3-278 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2763 | beam-bracings | 2046AF34LPL279 | AF3-279 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2764 | beam-bracings | 2046AF34LPL280 | AF3-280 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2765 | beam-bracings | 2046AF34LPL281 | AF3-281 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2766 | beam-bracings | 2046AF34LPL282 | AF3-282 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2767 | beam-bracings | 2046AF34LPL283 | AF3-283 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2768 | beam-bracings | 2046AF34LPL284 | AF3-284 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2769 | beam-bracings | 2046AF34LPL285 | AF3-285 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2770 | beam-bracings | 2046AF34LPL286 | AF3-286 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2771 | beam-bracings | 2046AF34LPL287 | AF3-287 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2772 | beam-bracings | 2046AF34LPL288 | AF3-288 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2773 | beam-bracings | 2046AF34LPL289 | AF3-289 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2774 | beam-bracings | 2046AF34LPL290 | AF3-290 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2775 | beam-bracings | 2046AF34LPL291 | AF3-291 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2776 | beam-bracings | 2046AF34LPL292 | AF3-292 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2777 | beam-bracings | 2046AF34LPL293 | AF3-293 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2778 | beam-bracings | 2046AF34LPL294 | AF3-294 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2779 | beam-bracings | 2046AF34LPL295 | AF3-295 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2780 | beam-bracings | 2046AF34LPL296 | AF3-296 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2781 | beam-bracings | 2046AF34LPL297 | AF3-297 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2782 | beam-bracings | 2046AF34LPL298 | AF3-298 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2783 | beam-bracings | 2046AF34LPL299 | AF3-299 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2784 | beam-bracings | 2046AF34LPL300 | AF3-300 | PL15*350 | 1 | 17.72 | A | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2785 | beam-bracings | 2046BF34B146 | BF3-146 | HEB400 | 1 | 437.52 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/04/2015 | 70 |
| 2786 | beam-bracings | 2046BF34B178 | BF3-178 | SHS300*10 | 1 | 746.87 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2787 | beam-bracings | 2046BF34B179 | BF3-179 | SHS300*10 | 1 | 746.82 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2788 | beam-bracings | 2046BF34B180 | BF3-180 | SHS300*10 | 1 | 720.11 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2789 | beam-bracings | 2046BF34B181 | BF3-181 | SHS300*10 | 1 | 719.37 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2790 | beam-bracings | 2046BF34B182 | BF3-182 | HEB300 | 1 | 318.84 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2791 | beam-bracings | 2046BF34BR163 | BF3-163 | CHS355.6*10.0 | 1 | 564.50 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2792 | beam-bracings | 2046BF34BR164 | BF3-164 | CHS323.9*6.3 | 1 | 300.77 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 12/01/2015 | 22 |
| 2793 | beam-bracings | 2046BF34BR165 | BF3-165 | CHS323.9*6.3 | 1 | 300.64 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2794 | beam-bracings | 2046BF34BR166 | BF3-166 | CHS323.9*6.3 | 1 | 292.49 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2795 | beam-bracings | 2046BF34BR167 | BF3-167 | CHS323.9*6.3 | 1 | 636.37 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2796 | beam-bracings | 2046BF34BR168 | BF3-168 | CHS323.9*6.3 | 1 | 269.53 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2797 | beam-bracings | 2046BF34BR169 | BF3-169 | CHS323.9*6.3 | 1 | 300.77 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2798 | beam-bracings | 2046BF34BR170 | BF3-170 | CHS323.9*6.3 | 1 | 309.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2799 | beam-bracings | 2046BF34BR171 | BF3-171 | CHS323.9*6.3 | 1 | 669.18 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2800 | beam-bracings | 2046BF34BR172 | BF3-172 | CHS323.9*6.3 | 1 | 673.63 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2801 | beam-bracings | 2046BF34BR173 | BF3-173 | CHS323.9*6.3 | 1 | 292.49 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2802 | beam-bracings | 2046BF34BR174 | BF3-174 | CHS323.9*6.3 | 1 | 269.53 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2803 | beam-bracings | 2046BF34BR175 | BF3-175 | CHS323.9*6.3 | 1 | 652.63 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2804 | beam-bracings | 2046BF34BR176 | BF3-176 | CHS323.9*6.3 | 1 | 234.85 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2805 | beam-bracings | 2046BF34BR177 | BF3-177 | CHS323.9*6.3 | 1 | 234.85 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2806 | beam-bracings | 2046BF34LPL134 | BF3-134 | PL20*390 | 1 | 48.37 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2807 | beam-bracings | 2046BF34LPL135 | BF3-135 | PL20*390 | 1 | 48.37 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2808 | beam-bracings | 2046BF34LPL136 | BF3-136 | PL20*390 | 1 | 48.37 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2809 | beam-bracings | 2046BF34LPL137 | BF3-137 | PL20*390 | 1 | 48.37 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2810 | beam-bracings | 2046BF34LPL138 | BF3-138 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2811 | beam-bracings | 2046BF34LPL139 | BF3-139 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2812 | beam-bracings | 2046BF34LPL140 | BF3-140 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2813 | beam-bracings | 2046BF34LPL141 | BF3-141 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2814 | beam-bracings | 2046BF34LPL142 | BF3-142 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2815 | beam-bracings | 2046BF34LPL143 | BF3-143 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2816 | beam-bracings | 2046BF34LPL144 | BF3-144 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2817 | beam-bracings | 2046BF34LPL145 | BF3-145 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2818 | beam-bracings | 2046BF34LPL147 | BF3-147 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2819 | beam-bracings | 2046BF34LPL148 | BF3-148 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2820 | beam-bracings | 2046BF34LPL149 | BF3-149 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2821 | beam-bracings | 2046BF34LPL150 | BF3-150 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2822 | beam-bracings | 2046BF34LPL151 | BF3-151 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2823 | beam-bracings | 2046BF34LPL152 | BF3-152 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2824 | beam-bracings | 2046BF34LPL153 | BF3-153 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2825 | beam-bracings | 2046BF34LPL154 | BF3-154 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2826 | beam-bracings | 2046BF34LPL155 | BF3-155 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2827 | beam-bracings | 2046BF34LPL156 | BF3-156 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2828 | beam-bracings | 2046BF34LPL157 | BF3-157 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2829 | beam-bracings | 2046BF34LPL158 | BF3-158 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2830 | beam-bracings | 2046BF34LPL159 | BF3-159 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2831 | beam-bracings | 2046BF34LPL160 | BF3-160 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2832 | beam-bracings | 2046BF34LPL161 | BF3-161 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2833 | beam-bracings | 2046BF34LPL162 | BF3-162 | PL10*330 | 1 | 11.14 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2834 | beam-bracings | 2046BF34LPL183 | BF3-183 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2835 | beam-bracings | 2046BF34LPL184 | BF3-184 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2836 | beam-bracings | 2046BF34LPL185 | BF3-185 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2837 | beam-bracings | 2046BF34LPL186 | BF3-186 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2838 | beam-bracings | 2046BF34LPL187 | BF3-187 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2839 | beam-bracings | 2046BF34LPL188 | BF3-188 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2840 | beam-bracings | 2046BF34LPL189 | BF3-189 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2841 | beam-bracings | 2046BF34LPL190 | BF3-190 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2842 | beam-bracings | 2046BF34LPL191 | BF3-191 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2843 | beam-bracings | 2046BF34LPL192 | BF3-192 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2844 | beam-bracings | 2046BF34LPL193 | BF3-193 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2845 | beam-bracings | 2046BF34LPL194 | BF3-194 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2846 | beam-bracings | 2046BF34LPL195 | BF3-195 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2847 | beam-bracings | 2046BF34LPL196 | BF3-196 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2848 | beam-bracings | 2046BF34LPL197 | BF3-197 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2849 | beam-bracings | 2046BF34LPL198 | BF3-198 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2850 | beam-bracings | 2046BF34LPL199 | BF3-199 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2851 | beam-bracings | 2046BF34LPL200 | BF3-200 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2852 | beam-bracings | 2046BF34LPL201 | BF3-201 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2853 | beam-bracings | 2046BF34LPL202 | BF3-202 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2854 | beam-bracings | 2046BF34LPL203 | BF3-203 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2855 | beam-bracings | 2046BF34LPL204 | BF3-204 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2856 | beam-bracings | 2046BF34LPL205 | BF3-205 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2857 | beam-bracings | 2046BF34LPL206 | BF3-206 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2858 | beam-bracings | 2046BF34LPL207 | BF3-207 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2859 | beam-bracings | 2046BF34LPL208 | BF3-208 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2860 | beam-bracings | 2046BF34LPL209 | BF3-209 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2861 | beam-bracings | 2046BF34LPL210 | BF3-210 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2862 | beam-bracings | 2046BF34LPL211 | BF3-211 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2863 | beam-bracings | 2046BF34LPL212 | BF3-212 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2864 | beam-bracings | 2046BF34LPL213 | BF3-213 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2865 | beam-bracings | 2046BF34LPL214 | BF3-214 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 28/01/2015 | 28 |
| 2866 | beam-bracings | 2046BF34LPL215 | BF3-215 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2867 | beam-bracings | 2046BF34LPL216 | BF3-216 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2868 | beam-bracings | 2046BF34LPL217 | BF3-217 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2869 | beam-bracings | 2046BF34LPL218 | BF3-218 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2870 | beam-bracings | 2046BF34LPL219 | BF3-219 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2871 | beam-bracings | 2046BF34LPL220 | BF3-220 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2872 | beam-bracings | 2046BF34LPL221 | BF3-221 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2873 | beam-bracings | 2046BF34LPL222 | BF3-222 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2874 | beam-bracings | 2046BF34LPL223 | BF3-223 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2875 | beam-bracings | 2046BF34LPL224 | BF3-224 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2876 | beam-bracings | 2046BF34LPL225 | BF3-225 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2877 | beam-bracings | 2046BF34LPL226 | BF3-226 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2878 | beam-bracings | 2046BF34LPL227 | BF3-227 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2879 | beam-bracings | 2046BF34LPL228 | BF3-228 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2880 | beam-bracings | 2046BF34LPL229 | BF3-229 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2881 | beam-bracings | 2046BF34LPL230 | BF3-230 | PL15*350 | 1 | 17.72 | B | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2882 | beam-bracings | 2046CF34B146 | CF3-146 | HEB400 | 1 | 435.01 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/04/2015 | 71 |
| 2883 | beam-bracings | 2046CF34B178 | CF3-178 | SHS300*10 | 1 | 746.87 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2884 | beam-bracings | 2046CF34B179 | CF3-179 | SHS300*10 | 1 | 746.82 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2885 | beam-bracings | 2046CF34B180 | CF3-180 | SHS300*10 | 1 | 720.11 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2886 | beam-bracings | 2046CF34B181 | CF3-181 | SHS300*10 | 1 | 719.37 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 03/12/2014 | 17 |
| 2887 | beam-bracings | 2046CF34B182 | CF3-182 | HEB300 | 1 | 318.84 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 04/02/2015 | 31 |
| 2888 | beam-bracings | 2046CF34BR163 | CF3-163 | CHS355.6*10.0 | 1 | 564.50 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2889 | beam-bracings | 2046CF34BR164 | CF3-164 | CHS323.9*6.3 | 1 | 300.77 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2890 | beam-bracings | 2046CF34BR165 | CF3-165 | CHS323.9*6.3 | 1 | 300.64 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2891 | beam-bracings | 2046CF34BR166 | CF3-166 | CHS323.9*6.3 | 1 | 300.77 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 12/01/2015 | 22 |
| 2892 | beam-bracings | 2046CF34BR167 | CF3-167 | CHS323.9*6.3 | 1 | 309.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2893 | beam-bracings | 2046CF34BR168 | CF3-168 | CHS323.9*6.3 | 1 | 669.18 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2894 | beam-bracings | 2046CF34BR169 | CF3-169 | CHS323.9*6.3 | 1 | 673.63 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2895 | beam-bracings | 2046CF34BR170 | CF3-170 | CHS323.9*6.3 | 1 | 234.85 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2896 | beam-bracings | 2046CF34BR171 | CF3-171 | CHS323.9*6.3 | 1 | 234.85 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2897 | beam-bracings | 2046CF34BR172 | CF3-172 | CHS323.9*6.3 | 1 | 652.63 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2898 | beam-bracings | 2046CF34BR173 | CF3-173 | CHS323.9*6.3 | 1 | 292.49 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 17/12/2014 | 19 |
| 2899 | beam-bracings | 2046CF34BR174 | CF3-174 | CHS323.9*6.3 | 1 | 269.53 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 19/01/2015 | 24 |
| 2900 | beam-bracings | 2046CF34BR175 | CF3-175 | CHS323.9*6.3 | 1 | 269.53 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2901 | beam-bracings | 2046CF34BR176 | CF3-176 | CHS323.9*6.3 | 1 | 636.37 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2902 | beam-bracings | 2046CF34BR177 | CF3-177 | CHS323.9*6.3 | 1 | 292.49 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2903 | beam-bracings | 2046CF34LPL134 | CF3-134 | PL20*390 | 1 | 48.37 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2904 | beam-bracings | 2046CF34LPL135 | CF3-135 | PL20*390 | 1 | 48.37 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2905 | beam-bracings | 2046CF34LPL136 | CF3-136 | PL20*390 | 1 | 48.37 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2906 | beam-bracings | 2046CF34LPL137 | CF3-137 | PL20*390 | 1 | 48.37 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 10/12/2014 | 18 |
| 2907 | beam-bracings | 2046CF34LPL138 | CF3-138 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2908 | beam-bracings | 2046CF34LPL139 | CF3-139 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2909 | beam-bracings | 2046CF34LPL140 | CF3-140 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2910 | beam-bracings | 2046CF34LPL141 | CF3-141 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2911 | beam-bracings | 2046CF34LPL142 | CF3-142 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2912 | beam-bracings | 2046CF34LPL143 | CF3-143 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2913 | beam-bracings | 2046CF34LPL144 | CF3-144 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2914 | beam-bracings | 2046CF34LPL145 | CF3-145 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 09/01/2015 | 21 |
| 2915 | beam-bracings | 2046CF34LPL147 | CF3-147 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2916 | beam-bracings | 2046CF34LPL148 | CF3-148 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2917 | beam-bracings | 2046CF34LPL149 | CF3-149 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2918 | beam-bracings | 2046CF34LPL150 | CF3-150 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2919 | beam-bracings | 2046CF34LPL151 | CF3-151 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2920 | beam-bracings | 2046CF34LPL152 | CF3-152 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2921 | beam-bracings | 2046CF34LPL153 | CF3-153 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2922 | beam-bracings | 2046CF34LPL154 | CF3-154 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2923 | beam-bracings | 2046CF34LPL155 | CF3-155 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2924 | beam-bracings | 2046CF34LPL156 | CF3-156 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2925 | beam-bracings | 2046CF34LPL157 | CF3-157 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2926 | beam-bracings | 2046CF34LPL158 | CF3-158 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2927 | beam-bracings | 2046CF34LPL159 | CF3-159 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2928 | beam-bracings | 2046CF34LPL160 | CF3-160 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2929 | beam-bracings | 2046CF34LPL161 | CF3-161 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 27/11/2014 | 15 |
| 2930 | beam-bracings | 2046CF34LPL162 | CF3-162 | PL10*330 | 1 | 11.14 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 01/08/2015 | 166 |
| 2931 | beam-bracings | 2046CF34LPL183 | CF3-183 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2932 | beam-bracings | 2046CF34LPL184 | CF3-184 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2933 | beam-bracings | 2046CF34LPL185 | CF3-185 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 06/01/2015 | 20 |
| 2934 | beam-bracings | 2046CF34LPL186 | CF3-186 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2935 | beam-bracings | 2046CF34LPL187 | CF3-187 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2936 | beam-bracings | 2046CF34LPL188 | CF3-188 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2937 | beam-bracings | 2046CF34LPL189 | CF3-189 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2938 | beam-bracings | 2046CF34LPL190 | CF3-190 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2939 | beam-bracings | 2046CF34LPL191 | CF3-191 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2940 | beam-bracings | 2046CF34LPL192 | CF3-192 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2941 | beam-bracings | 2046CF34LPL193 | CF3-193 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2942 | beam-bracings | 2046CF34LPL194 | CF3-194 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2943 | beam-bracings | 2046CF34LPL195 | CF3-195 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2944 | beam-bracings | 2046CF34LPL196 | CF3-196 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2945 | beam-bracings | 2046CF34LPL197 | CF3-197 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2946 | beam-bracings | 2046CF34LPL198 | CF3-198 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2947 | beam-bracings | 2046CF34LPL199 | CF3-199 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2948 | beam-bracings | 2046CF34LPL200 | CF3-200 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2949 | beam-bracings | 2046CF34LPL201 | CF3-201 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2950 | beam-bracings | 2046CF34LPL202 | CF3-202 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2951 | beam-bracings | 2046CF34LPL203 | CF3-203 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2952 | beam-bracings | 2046CF34LPL204 | CF3-204 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2953 | beam-bracings | 2046CF34LPL205 | CF3-205 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2954 | beam-bracings | 2046CF34LPL206 | CF3-206 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2955 | beam-bracings | 2046CF34LPL207 | CF3-207 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2956 | beam-bracings | 2046CF34LPL208 | CF3-208 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2957 | beam-bracings | 2046CF34LPL209 | CF3-209 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2958 | beam-bracings | 2046CF34LPL210 | CF3-210 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2959 | beam-bracings | 2046CF34LPL211 | CF3-211 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2960 | beam-bracings | 2046CF34LPL212 | CF3-212 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2961 | beam-bracings | 2046CF34LPL213 | CF3-213 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2962 | beam-bracings | 2046CF34LPL214 | CF3-214 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2963 | beam-bracings | 2046CF34LPL215 | CF3-215 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2964 | beam-bracings | 2046CF34LPL216 | CF3-216 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2965 | beam-bracings | 2046CF34LPL217 | CF3-217 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2966 | beam-bracings | 2046CF34LPL218 | CF3-218 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2967 | beam-bracings | 2046CF34LPL219 | CF3-219 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2968 | beam-bracings | 2046CF34LPL220 | CF3-220 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2969 | beam-bracings | 2046CF34LPL221 | CF3-221 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2970 | beam-bracings | 2046CF34LPL222 | CF3-222 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2971 | beam-bracings | 2046CF34LPL223 | CF3-223 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2972 | beam-bracings | 2046CF34LPL224 | CF3-224 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2973 | beam-bracings | 2046CF34LPL225 | CF3-225 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2974 | beam-bracings | 2046CF34LPL226 | CF3-226 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2975 | beam-bracings | 2046CF34LPL227 | CF3-227 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2976 | beam-bracings | 2046CF34LPL228 | CF3-228 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2977 | beam-bracings | 2046CF34LPL229 | CF3-229 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2978 | beam-bracings | 2046CF34LPL230 | CF3-230 | PL15*350 | 1 | 17.72 | C | 3 | 13.1-13.2 | Without Intumescent | Portugal | 01/08/2014 | 22/01/2015 | 25 |
| 2979 | beam-bracings | 2046DF11B17 | DF1-17 | HEA300 | 1 | 774.79 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2980 | beam-bracings | 2046DF11B18 | DF1-18 | HEA300 | 1 | 759.26 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 27/11/2014 | 15 |
| 2981 | beam-bracings | 2046DF11B19 | DF1-19 | HEA300 | 1 | 774.79 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 27/11/2014 | 15 |
| 2982 | beam-bracings | 2046DF11B20 | DF1-20 | HEA300 | 1 | 759.26 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 27/11/2014 | 15 |
| 2983 | beam-bracings | 2046EF11B17 | EF1-17 | HEA300 | 1 | 776.12 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 24/11/2014 | 14 |
| 2984 | beam-bracings | 2046EF11B18 | EF1-18 | HEA300 | 1 | 759.26 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 27/11/2014 | 15 |
| 2985 | beam-bracings | 2046EF11B19 | EF1-19 | HEA300 | 1 | 776.12 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2986 | beam-bracings | 2046EF11B20 | EF1-20 | HEA300 | 1 | 759.26 | E | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2987 | beam-bracings | 2046FF11B17 | FF1-17 | HEA300 | 1 | 776.12 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2988 | beam-bracings | 2046FF11B18 | FF1-18 | HEA300 | 1 | 759.26 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2989 | beam-bracings | 2046FF11B19 | FF1-19 | HEA300 | 1 | 776.12 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2990 | beam-bracings | 2046FF11B20 | FF1-20 | HEA300 | 1 | 759.26 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 14/11/2014 | 13 |
| 2991 | beam-bracings | 2046GF11B17 | GF1-17 | HEA300 | 1 | 776.12 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 24/11/2014 | 14 |
| 2992 | beam-bracings | 2046GF11B18 | GF1-18 | HEA300 | 1 | 759.26 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 24/11/2014 | 14 |
| 2993 | beam-bracings | 2046GF11B19 | GF1-19 | HEA300 | 1 | 776.12 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 24/11/2014 | 14 |
| 2994 | beam-bracings | 2046GF11B20 | GF1-20 | HEA300 | 1 | 759.26 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 20/08/2014 | 01/12/2014 | 16 |
| 2995 | beam-bracings | 2046AF51B37 | AF5-37 | SHS300*10 | 1 | 774.13 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 03/12/2014 | 17 |
| 2996 | beam-bracings | 2046AF51B74 | AF5-74 | SHS300*10 | 1 | 784.80 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 03/12/2014 | 17 |
| 2997 | beam-bracings | 2046AF51B75 | AF5-75 | SHS300*10 | 1 | 768.88 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/12/2014 | 16 |
| 2998 | beam-bracings | 2046AF51BR38 | AF5-38 | CHS168.3*10.0 | 1 | 251.41 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 2999 | beam-bracings | 2046AF51BR39 | AF5-39 | CHS168.3*10.0 | 1 | 251.41 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3000 | beam-bracings | 2046AF51BR40 | AF5-40 | CHS168.3*10.0 | 1 | 237.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3001 | beam-bracings | 2046AF51BR41 | AF5-41 | CHS168.3*10.0 | 1 | 237.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/12/2014 | 16 |
| 3002 | beam-bracings | 2046AF51BR71 | AF5-71 | CHS323.9*6.3 | 1 | 271.78 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3003 | beam-bracings | 2046AF51BR72 | AF5-72 | CHS323.9*6.3 | 1 | 641.85 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3004 | beam-bracings | 2046AF51BR73 | AF5-73 | CHS323.9*6.3 | 1 | 271.78 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 19/01/2015 | 24 |
| 3005 | beam-bracings | 2046AF51BR92 | AF5-92 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/01/2015 | 20 |
| 3006 | beam-bracings | 2046AF51BR93 | AF5-93 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3007 | beam-bracings | 2046AF51BR94 | AF5-94 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3008 | beam-bracings | 2046AF51BR95 | AF5-95 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3009 | beam-bracings | 2046AF51LPL42 | AF5-42 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3010 | beam-bracings | 2046AF51LPL43 | AF5-43 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3011 | beam-bracings | 2046AF51LPL44 | AF5-44 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3012 | beam-bracings | 2046AF51LPL45 | AF5-45 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3013 | beam-bracings | 2046AF51LPL46 | AF5-46 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3014 | beam-bracings | 2046AF51LPL47 | AF5-47 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3015 | beam-bracings | 2046AF51LPL48 | AF5-48 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3016 | beam-bracings | 2046AF51LPL49 | AF5-49 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3017 | beam-bracings | 2046AF51LPL50 | AF5-50 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3018 | beam-bracings | 2046AF51LPL51 | AF5-51 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3019 | beam-bracings | 2046AF51LPL52 | AF5-52 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3020 | beam-bracings | 2046AF51LPL53 | AF5-53 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3021 | beam-bracings | 2046AF51LPL54 | AF5-54 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 10/11/2014 | 12 |
| 3022 | beam-bracings | 2046AF51LPL55 | AF5-55 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3023 | beam-bracings | 2046AF51LPL56 | AF5-56 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3024 | beam-bracings | 2046AF51LPL57 | AF5-57 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3025 | beam-bracings | 2046AF51LPL58 | AF5-58 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/12/2014 | 16 |
| 3026 | beam-bracings | 2046AF51LPL59 | AF5-59 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3027 | beam-bracings | 2046AF51LPL60 | AF5-60 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3028 | beam-bracings | 2046AF51LPL61 | AF5-61 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3029 | beam-bracings | 2046AF51LPL62 | AF5-62 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3030 | beam-bracings | 2046AF51LPL63 | AF5-63 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3031 | beam-bracings | 2046AF51LPL64 | AF5-64 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3032 | beam-bracings | 2046AF51LPL65 | AF5-65 | PL10*250 | 1 | 8.83 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3033 | beam-bracings | 2046AF51LPL67 | AF5-67 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3034 | beam-bracings | 2046AF51LPL68 | AF5-68 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3035 | beam-bracings | 2046AF51LPL69 | AF5-69 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3036 | beam-bracings | 2046AF51LPL70 | AF5-70 | PL10*330 | 1 | 11.14 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3037 | beam-bracings | 2046AF51LPL80 | AF5-80 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3038 | beam-bracings | 2046AF51LPL81 | AF5-81 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3039 | beam-bracings | 2046AF51LPL82 | AF5-82 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3040 | beam-bracings | 2046AF51LPL83 | AF5-83 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3041 | beam-bracings | 2046AF51LPL84 | AF5-84 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3042 | beam-bracings | 2046AF51LPL85 | AF5-85 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3043 | beam-bracings | 2046AF51LPL86 | AF5-86 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3044 | beam-bracings | 2046AF51LPL87 | AF5-87 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3045 | beam-bracings | 2046AF51LPL88 | AF5-88 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 04/11/2014 | 10 |
| 3046 | beam-bracings | 2046AF51LPL89 | AF5-89 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3047 | beam-bracings | 2046AF51LPL90 | AF5-90 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3048 | beam-bracings | 2046AF51LPL91 | AF5-91 | PL15*350 | 1 | 17.72 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3049 | beam-bracings | 2046AF51LPL106 | AF5-106 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3050 | beam-bracings | 2046AF51LPL107 | AF5-107 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3051 | beam-bracings | 2046AF51LPL108 | AF5-108 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3052 | beam-bracings | 2046AF51LPL109 | AF5-109 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3053 | beam-bracings | 2046AF51LPL110 | AF5-110 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3054 | beam-bracings | 2046AF51LPL111 | AF5-111 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3055 | beam-bracings | 2046AF51LPL112 | AF5-112 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3056 | beam-bracings | 2046AF51LPL113 | AF5-113 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3057 | beam-bracings | 2046AF51LPL114 | AF5-114 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3058 | beam-bracings | 2046AF51LPL115 | AF5-115 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3059 | beam-bracings | 2046AF51LPL116 | AF5-116 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3060 | beam-bracings | 2046AF51LPL117 | AF5-117 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3061 | beam-bracings | 2046AF51LPL118 | AF5-118 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3062 | beam-bracings | 2046AF51LPL119 | AF5-119 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3063 | beam-bracings | 2046AF51LPL120 | AF5-120 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3064 | beam-bracings | 2046AF51LPL121 | AF5-121 | PL10*200 | 1 | 5.49 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 27/11/2014 | 15 |
| 3065 | beam-bracings | 2046AF51TR66 | AF5-66 | RHS300*100*10 | 1 | 1704.91 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 02/02/2015 | 30 |
| 3066 | beam-bracings | 2046BF51B19 | BF5-19 | SHS300*10 | 1 | 774.13 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 03/12/2014 | 17 |
| 3067 | beam-bracings | 2046BF51B48 | BF5-48 | SHS300*10 | 1 | 785.90 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 03/12/2014 | 17 |
| 3068 | beam-bracings | 2046BF51B49 | BF5-49 | SHS300*10 | 1 | 775.07 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3069 | beam-bracings | 2046BF51BR20 | BF5-20 | CHS168.3*10.0 | 1 | 251.41 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/12/2014 | 16 |
| 3070 | beam-bracings | 2046BF51BR21 | BF5-21 | CHS168.3*10.0 | 1 | 251.41 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/01/2015 | 20 |
| 3071 | beam-bracings | 2046BF51BR22 | BF5-22 | CHS168.3*10.0 | 1 | 237.21 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3072 | beam-bracings | 2046BF51BR23 | BF5-23 | CHS168.3*10.0 | 1 | 237.21 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/12/2014 | 16 |
| 3073 | beam-bracings | 2046BF51BR45 | BF5-45 | CHS323.9*6.3 | 1 | 271.78 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 19/01/2015 | 24 |
| 3074 | beam-bracings | 2046BF51BR46 | BF5-46 | CHS323.9*6.3 | 1 | 271.78 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 15/01/2015 | 23 |
| 3075 | beam-bracings | 2046BF51BR47 | BF5-47 | CHS323.9*6.3 | 1 | 641.85 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/12/2014 | 16 |
| 3076 | beam-bracings | 2046BF51LPL24 | BF5-24 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3077 | beam-bracings | 2046BF51LPL25 | BF5-25 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3078 | beam-bracings | 2046BF51LPL26 | BF5-26 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3079 | beam-bracings | 2046BF51LPL27 | BF5-27 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3080 | beam-bracings | 2046BF51LPL28 | BF5-28 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3081 | beam-bracings | 2046BF51LPL29 | BF5-29 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3082 | beam-bracings | 2046BF51LPL30 | BF5-30 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3083 | beam-bracings | 2046BF51LPL31 | BF5-31 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3084 | beam-bracings | 2046BF51LPL32 | BF5-32 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3085 | beam-bracings | 2046BF51LPL33 | BF5-33 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3086 | beam-bracings | 2046BF51LPL34 | BF5-34 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3087 | beam-bracings | 2046BF51LPL36 | BF5-36 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3088 | beam-bracings | 2046BF51LPL37 | BF5-37 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3089 | beam-bracings | 2046BF51LPL38 | BF5-38 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3090 | beam-bracings | 2046BF51LPL39 | BF5-39 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3091 | beam-bracings | 2046BF51LPL41 | BF5-41 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3092 | beam-bracings | 2046BF51LPL42 | BF5-42 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3093 | beam-bracings | 2046BF51LPL43 | BF5-43 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3094 | beam-bracings | 2046BF51LPL44 | BF5-44 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3095 | beam-bracings | 2046BF51LPL52 | BF5-52 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3096 | beam-bracings | 2046BF51LPL53 | BF5-53 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3097 | beam-bracings | 2046BF51LPL54 | BF5-54 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3098 | beam-bracings | 2046BF51LPL55 | BF5-55 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3099 | beam-bracings | 2046BF51LPL56 | BF5-56 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3100 | beam-bracings | 2046BF51LPL57 | BF5-57 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3101 | beam-bracings | 2046BF51LPL58 | BF5-58 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3102 | beam-bracings | 2046BF51LPL59 | BF5-59 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3103 | beam-bracings | 2046BF51LPL60 | BF5-60 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3104 | beam-bracings | 2046BF51LPL61 | BF5-61 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 01/08/2015 | 166 |
| 3105 | beam-bracings | 2046BF51LPL62 | BF5-62 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3106 | beam-bracings | 2046BF51LPL63 | BF5-63 | PL15*350 | 1 | 17.72 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 06/03/2015 | 47 |
| 3107 | beam-bracings | 2046BF51LPL69 | BF5-69 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3108 | beam-bracings | 2046BF51LPL70 | BF5-70 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3109 | beam-bracings | 2046BF51LPL71 | BF5-71 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3110 | beam-bracings | 2046BF51LPL72 | BF5-72 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3111 | beam-bracings | 2046BF51LPL73 | BF5-73 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3112 | beam-bracings | 2046BF51LPL74 | BF5-74 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3113 | beam-bracings | 2046BF51LPL75 | BF5-75 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3114 | beam-bracings | 2046BF51LPL76 | BF5-76 | PL10*200 | 1 | 5.49 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3115 | beam-bracings | 2046BF51LPL135 | BF5-135 | PL10*330 | 1 | 11.14 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 09/01/2015 | 21 |
| 3116 | beam-bracings | 2046BF51TR40 | BF5-40 | RHS300*100*10 | 1 | 1704.91 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 05/09/2014 | 02/02/2015 | 30 |
| 3117 | beam-bracings | 2046DF11BR14 | DF1-14 | CHS355.6*10.0 | 1 | 515.44 | D | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3118 | beam-bracings | 2046FF11B15 | FF1-15 | HEB300 | 1 | 325.46 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3119 | beam-bracings | 2046FF11B16 | FF1-16 | HEB300 | 1 | 329.69 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3120 | beam-bracings | 2046FF11BR13 | FF1-13 | CHS355.6*10.0 | 1 | 477.95 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3121 | beam-bracings | 2046FF11BR14 | FF1-14 | CHS355.6*10.0 | 1 | 515.44 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3122 | beam-bracings | 2046FF11LPL5 | FF1-5 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3123 | beam-bracings | 2046FF11LPL6 | FF1-6 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3124 | beam-bracings | 2046FF11LPL7 | FF1-7 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3125 | beam-bracings | 2046FF11LPL8 | FF1-8 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3126 | beam-bracings | 2046FF11LPL9 | FF1-9 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3127 | beam-bracings | 2046FF11LPL10 | FF1-10 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3128 | beam-bracings | 2046FF11LPL11 | FF1-11 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3129 | beam-bracings | 2046FF11LPL12 | FF1-12 | PL20*390 | 1 | 48.37 | F | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3130 | beam-bracings | 2046GF11B15 | GF1-15 | HEB300 | 1 | 325.46 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3131 | beam-bracings | 2046GF11B16 | GF1-16 | HEB300 | 1 | 329.69 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3132 | beam-bracings | 2046GF11BR13 | GF1-13 | CHS355.6*10.0 | 1 | 477.95 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3133 | beam-bracings | 2046GF11BR14 | GF1-14 | CHS355.6*10.0 | 1 | 515.44 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3134 | beam-bracings | 2046GF11LPL5 | GF1-5 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3135 | beam-bracings | 2046GF11LPL6 | GF1-6 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3136 | beam-bracings | 2046GF11LPL7 | GF1-7 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3137 | beam-bracings | 2046GF11LPL8 | GF1-8 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3138 | beam-bracings | 2046GF11LPL9 | GF1-9 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3139 | beam-bracings | 2046GF11LPL10 | GF1-10 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3140 | beam-bracings | 2046GF11LPL11 | GF1-11 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3141 | beam-bracings | 2046GF11LPL12 | GF1-12 | PL20*390 | 1 | 48.37 | G | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3142 | beam-bracings | 2046HF11B17 | HF1-17 | SHS300*10 | 1 | 745.10 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3143 | beam-bracings | 2046HF11B18 | HF1-18 | SHS300*10 | 1 | 751.61 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3144 | beam-bracings | 2046HF11B19 | HF1-19 | HEB300 | 1 | 325.46 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3145 | beam-bracings | 2046HF11B20 | HF1-20 | HEB300 | 1 | 329.69 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3146 | beam-bracings | 2046HF11BR13 | HF1-13 | CHS355.6*10.0 | 1 | 477.95 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3147 | beam-bracings | 2046HF11BR14 | HF1-14 | CHS355.6*10.0 | 1 | 515.44 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3148 | beam-bracings | 2046HF11LPL5 | HF1-5 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3149 | beam-bracings | 2046HF11LPL6 | HF1-6 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3150 | beam-bracings | 2046HF11LPL7 | HF1-7 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3151 | beam-bracings | 2046HF11LPL8 | HF1-8 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3152 | beam-bracings | 2046HF11LPL9 | HF1-9 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3153 | beam-bracings | 2046HF11LPL10 | HF1-10 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3154 | beam-bracings | 2046HF11LPL11 | HF1-11 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3155 | beam-bracings | 2046HF11LPL12 | HF1-12 | PL20*390 | 1 | 48.37 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3156 | beam-bracings | 2046HF11LPL54 | HF1-54 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3157 | beam-bracings | 2046HF11LPL55 | HF1-55 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3158 | beam-bracings | 2046HF11LPL56 | HF1-56 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3159 | beam-bracings | 2046HF11LPL57 | HF1-57 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3160 | beam-bracings | 2046HF11LPL58 | HF1-58 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3161 | beam-bracings | 2046HF11LPL59 | HF1-59 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3162 | beam-bracings | 2046HF11LPL60 | HF1-60 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3163 | beam-bracings | 2046HF11LPL61 | HF1-61 | PL10*330 | 1 | 11.14 | H | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3164 | beam-bracings | 2046IF11B16 | IF1-16 | SHS300*10 | 1 | 742.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3165 | beam-bracings | 2046IF11B17 | IF1-17 | SHS300*10 | 1 | 751.61 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3166 | beam-bracings | 2046IF11B18 | IF1-18 | HEB300 | 1 | 325.46 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3167 | beam-bracings | 2046IF11B19 | IF1-19 | HEB300 | 1 | 329.69 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3168 | beam-bracings | 2046IF11BR13 | IF1-13 | CHS355.6*10.0 | 1 | 477.95 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3169 | beam-bracings | 2046IF11BR14 | IF1-14 | CHS355.6*10.0 | 1 | 515.44 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3170 | beam-bracings | 2046IF11LPL5 | IF1-5 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3171 | beam-bracings | 2046IF11LPL6 | IF1-6 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3172 | beam-bracings | 2046IF11LPL7 | IF1-7 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3173 | beam-bracings | 2046IF11LPL8 | IF1-8 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3174 | beam-bracings | 2046IF11LPL9 | IF1-9 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3175 | beam-bracings | 2046IF11LPL10 | IF1-10 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3176 | beam-bracings | 2046IF11LPL11 | IF1-11 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3177 | beam-bracings | 2046IF11LPL12 | IF1-12 | PL20*390 | 1 | 48.37 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3178 | beam-bracings | 2046IF11LPL53 | IF1-53 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3179 | beam-bracings | 2046IF11LPL54 | IF1-54 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3180 | beam-bracings | 2046IF11LPL55 | IF1-55 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3181 | beam-bracings | 2046IF11LPL56 | IF1-56 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3182 | beam-bracings | 2046IF11LPL57 | IF1-57 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3183 | beam-bracings | 2046IF11LPL58 | IF1-58 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3184 | beam-bracings | 2046IF11LPL59 | IF1-59 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3185 | beam-bracings | 2046IF11LPL60 | IF1-60 | PL10*330 | 1 | 11.14 | I | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3186 | beam-bracings | 2046JF11B31 | JF1-31 | SHS300*10 | 1 | 751.61 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3187 | beam-bracings | 2046JF11B32 | JF1-32 | SHS300*10 | 1 | 751.61 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3188 | beam-bracings | 2046JF11B33 | JF1-33 | SHS300*10 | 1 | 742.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3189 | beam-bracings | 2046JF11B34 | JF1-34 | SHS300*10 | 1 | 742.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3190 | beam-bracings | 2046JF11B35 | JF1-35 | HEB300 | 1 | 325.46 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3191 | beam-bracings | 2046JF11B36 | JF1-36 | HEB300 | 1 | 329.69 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3192 | beam-bracings | 2046JF11BR29 | JF1-29 | CHS355.6*10.0 | 1 | 477.95 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3193 | beam-bracings | 2046JF11BR30 | JF1-30 | CHS355.6*10.0 | 1 | 515.44 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3194 | beam-bracings | 2046JF11LPL5 | JF1-5 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3195 | beam-bracings | 2046JF11LPL6 | JF1-6 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3196 | beam-bracings | 2046JF11LPL7 | JF1-7 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3197 | beam-bracings | 2046JF11LPL8 | JF1-8 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3198 | beam-bracings | 2046JF11LPL9 | JF1-9 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3199 | beam-bracings | 2046JF11LPL10 | JF1-10 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3200 | beam-bracings | 2046JF11LPL11 | JF1-11 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3201 | beam-bracings | 2046JF11LPL12 | JF1-12 | PL20*390 | 1 | 48.37 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3202 | beam-bracings | 2046JF11LPL13 | JF1-13 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3203 | beam-bracings | 2046JF11LPL14 | JF1-14 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3204 | beam-bracings | 2046JF11LPL15 | JF1-15 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3205 | beam-bracings | 2046JF11LPL16 | JF1-16 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3206 | beam-bracings | 2046JF11LPL17 | JF1-17 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3207 | beam-bracings | 2046JF11LPL18 | JF1-18 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3208 | beam-bracings | 2046JF11LPL19 | JF1-19 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3209 | beam-bracings | 2046JF11LPL20 | JF1-20 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3210 | beam-bracings | 2046JF11LPL21 | JF1-21 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3211 | beam-bracings | 2046JF11LPL22 | JF1-22 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3212 | beam-bracings | 2046JF11LPL23 | JF1-23 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3213 | beam-bracings | 2046JF11LPL24 | JF1-24 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3214 | beam-bracings | 2046JF11LPL25 | JF1-25 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3215 | beam-bracings | 2046JF11LPL26 | JF1-26 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3216 | beam-bracings | 2046JF11LPL27 | JF1-27 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3217 | beam-bracings | 2046JF11LPL28 | JF1-28 | PL10*330 | 1 | 11.14 | J | 1 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2014 | 16/09/2014 | 01 |
| 3218 | beam-bracings | 2046JF31B49 | JF3-49 | HEB400 | 1 | 435.01 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 29/09/2014 | 06/01/2015 | 20 |
| 3219 | beam-bracings | 2046JF31BR66 | JF3-66 | CHS355.6*10.0 | 1 | 564.50 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 29/09/2014 | 10/12/2014 | 18 |
| 3220 | beam-bracings | 2046JF31LPL37 | JF3-37 | PL20*390 | 1 | 48.37 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 29/09/2014 | 10/12/2014 | 18 |
| 3221 | beam-bracings | 2046JF31LPL38 | JF3-38 | PL20*390 | 1 | 48.37 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 29/09/2014 | 10/12/2014 | 18 |
| 3222 | beam-bracings | 2046JF31LPL39 | JF3-39 | PL20*390 | 1 | 48.37 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 29/09/2014 | 27/07/2015 | 155 |
| 3223 | beam-bracings | 2046JF31LPL40 | JF3-40 | PL20*390 | 1 | 48.37 | J | 3 | 13.3-13.4 | Without Intumescent | Portugal | 29/09/2014 | 10/12/2014 | 18 |
| 3224 | beam-bracings | 2046CF51B19 | CF5-19 | SHS300*10 | 1 | 774.13 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3225 | beam-bracings | 2046CF51B48 | CF5-48 | SHS300*10 | 1 | 782.26 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/01/2015 | 20 |
| 3226 | beam-bracings | 2046CF51B49 | CF5-49 | SHS300*10 | 1 | 764.32 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3227 | beam-bracings | 2046CF51BR20 | CF5-20 | CHS168.3*10.0 | 1 | 251.41 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3228 | beam-bracings | 2046CF51BR21 | CF5-21 | CHS168.3*10.0 | 1 | 251.41 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3229 | beam-bracings | 2046CF51BR22 | CF5-22 | CHS168.3*10.0 | 1 | 237.21 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3230 | beam-bracings | 2046CF51BR23 | CF5-23 | CHS168.3*10.0 | 1 | 237.21 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/01/2015 | 20 |
| 3231 | beam-bracings | 2046CF51BR45 | CF5-45 | CHS323.9*6.3 | 1 | 271.78 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 10/12/2014 | 18 |
| 3232 | beam-bracings | 2046CF51BR46 | CF5-46 | CHS323.9*6.3 | 1 | 271.78 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 17/12/2014 | 19 |
| 3233 | beam-bracings | 2046CF51BR47 | CF5-47 | CHS323.9*6.3 | 1 | 641.85 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 19/01/2015 | 24 |
| 3234 | beam-bracings | 2046CF51LPL24 | CF5-24 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3235 | beam-bracings | 2046CF51LPL25 | CF5-25 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3236 | beam-bracings | 2046CF51LPL26 | CF5-26 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3237 | beam-bracings | 2046CF51LPL27 | CF5-27 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3238 | beam-bracings | 2046CF51LPL28 | CF5-28 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3239 | beam-bracings | 2046CF51LPL29 | CF5-29 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3240 | beam-bracings | 2046CF51LPL30 | CF5-30 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3241 | beam-bracings | 2046CF51LPL31 | CF5-31 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3242 | beam-bracings | 2046CF51LPL32 | CF5-32 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3243 | beam-bracings | 2046CF51LPL33 | CF5-33 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3244 | beam-bracings | 2046CF51LPL34 | CF5-34 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3245 | beam-bracings | 2046CF51LPL35 | CF5-35 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3246 | beam-bracings | 2046CF51LPL36 | CF5-36 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3247 | beam-bracings | 2046CF51LPL37 | CF5-37 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3248 | beam-bracings | 2046CF51LPL38 | CF5-38 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3249 | beam-bracings | 2046CF51LPL39 | CF5-39 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3250 | beam-bracings | 2046CF51LPL41 | CF5-41 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3251 | beam-bracings | 2046CF51LPL42 | CF5-42 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3252 | beam-bracings | 2046CF51LPL43 | CF5-43 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3253 | beam-bracings | 2046CF51LPL44 | CF5-44 | PL10*330 | 1 | 11.14 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3254 | beam-bracings | 2046CF51LPL52 | CF5-52 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3255 | beam-bracings | 2046CF51LPL53 | CF5-53 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3256 | beam-bracings | 2046CF51LPL54 | CF5-54 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3257 | beam-bracings | 2046CF51LPL55 | CF5-55 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3258 | beam-bracings | 2046CF51LPL56 | CF5-56 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3259 | beam-bracings | 2046CF51LPL57 | CF5-57 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3260 | beam-bracings | 2046CF51LPL58 | CF5-58 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3261 | beam-bracings | 2046CF51LPL59 | CF5-59 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3262 | beam-bracings | 2046CF51LPL60 | CF5-60 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3263 | beam-bracings | 2046CF51LPL61 | CF5-61 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3264 | beam-bracings | 2046CF51LPL62 | CF5-62 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3265 | beam-bracings | 2046CF51LPL63 | CF5-63 | PL15*350 | 1 | 17.72 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/03/2015 | 47 |
| 3266 | beam-bracings | 2046CF51LPL69 | CF5-69 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3267 | beam-bracings | 2046CF51LPL70 | CF5-70 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3268 | beam-bracings | 2046CF51LPL71 | CF5-71 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |

Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3269 | beam-bracings | 2046CF51LPL72 | CF5-72 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3270 | beam-bracings | 2046CF51LPL73 | CF5-73 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3271 | beam-bracings | 2046CF51LPL74 | CF5-74 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3272 | beam-bracings | 2046CF51LPL75 | CF5-75 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3273 | beam-bracings | 2046CF51LPL76 | CF5-76 | PL10*200 | 1 | 5.49 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3274 | beam-bracings | 2046CF51LPL135 | CF5-135 | PL10*250 | 1 | 7.26 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 04/03/2015 | 46 |
| 3275 | beam-bracings | 2046CF51LPL136 | CF5-136 | PL10*250 | 1 | 7.26 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 04/03/2015 | 46 |
| 3276 | beam-bracings | 2046CF51LPL137 | CF5-137 | PL10*250 | 1 | 7.26 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 04/03/2015 | 46 |
| 3277 | beam-bracings | 2046CF51LPL138 | CF5-138 | PL10*250 | 1 | 7.26 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 04/03/2015 | 46 |
| 3278 | beam-bracings | 2046CF51TR40 | CF5-40 | RHS300*100*10 | 1 | 1704.91 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 04/02/2015 | 31 |
| 3279 | beam-bracings | 2046DF51B19 | DF5-19 | SHS300*10 | 1 | 774.13 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 27/11/2014 | 15 |
| 3280 | beam-bracings | 2046DF51B45 | DF5-45 | SHS300*10 | 1 | 782.26 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 27/11/2014 | 15 |
| 3281 | beam-bracings | 2046DF51B46 | DF5-46 | SHS300*10 | 1 | 782.09 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 01/12/2014 | 16 |
| 3282 | beam-bracings | 2046DF51BR20 | DF5-20 | CHS168.3*10.0 | 1 | 251.41 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 01/12/2014 | 16 |
| 3283 | beam-bracings | 2046DF51BR21 | DF5-21 | CHS168.3*10.0 | 1 | 251.41 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 01/12/2014 | 16 |
| 3284 | beam-bracings | 2046DF51BR22 | DF5-22 | CHS168.3*10.0 | 1 | 237.21 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 06/01/2015 | 20 |
| 3285 | beam-bracings | 2046DF51BR23 | DF5-23 | CHS168.3*10.0 | 1 | 237.21 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 01/12/2014 | 16 |
| 3286 | beam-bracings | 2046DF51LPL24 | DF5-24 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3287 | beam-bracings | 2046DF51LPL25 | DF5-25 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3288 | beam-bracings | 2046DF51LPL26 | DF5-26 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3289 | beam-bracings | 2046DF51LPL27 | DF5-27 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3290 | beam-bracings | 2046DF51LPL28 | DF5-28 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 03/12/2014 | 17 |
| 3291 | beam-bracings | 2046DF51LPL29 | DF5-29 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 17/08/2015 | 166 |
| 3292 | beam-bracings | 2046DF51LPL30 | DF5-30 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 17/08/2015 | 166 |
| 3293 | beam-bracings | 2046DF51LPL31 | DF5-31 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 17/08/2015 | 166 |
| 3294 | beam-bracings | 2046DF51LPL32 | DF5-32 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3295 | beam-bracings | 2046DF51LPL33 | DF5-33 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3296 | beam-bracings | 2046DF51LPL34 | DF5-34 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 17/08/2015 | 166 |
| 3297 | beam-bracings | 2046DF51LPL35 | DF5-35 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 17/08/2015 | 166 |
| 3298 | beam-bracings | 2046DF51LPL36 | DF5-36 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3299 | beam-bracings | 2046DF51LPL37 | DF5-37 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3300 | beam-bracings | 2046DF51LPL38 | DF5-38 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3301 | beam-bracings | 2046DF51LPL39 | DF5-39 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3302 | beam-bracings | 2046DF51LPL41 | DF5-41 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3303 | beam-bracings | 2046DF51LPL42 | DF5-42 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3304 | beam-bracings | 2046DF51LPL43 | DF5-43 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3305 | beam-bracings | 2046DF51LPL44 | DF5-44 | PL10*330 | 1 | 11.14 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3306 | beam-bracings | 2046DF51LPL54 | DF5-54 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3307 | beam-bracings | 2046DF51LPL55 | DF5-55 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3308 | beam-bracings | 2046DF51LPL56 | DF5-56 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3309 | beam-bracings | 2046DF51LPL57 | DF5-57 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3310 | beam-bracings | 2046DF51LPL58 | DF5-58 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3311 | beam-bracings | 2046DF51LPL59 | DF5-59 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3312 | beam-bracings | 2046DF51LPL60 | DF5-60 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3313 | beam-bracings | 2046DF51LPL61 | DF5-61 | PL10*200 | 1 | 5.49 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3314 | beam-bracings | 2046DF51TR40 | DF5-40 | RHS300*100*10 | 1 | 1195.95 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3315 | beam-bracings | 2046EF51B19 | EF5-19 | SHS300*10 | 1 | 774.13 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3316 | beam-bracings | 2046EF51B45 | EF5-45 | SHS300*10 | 1 | 782.26 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 19/01/2015 | 24 |
| 3317 | beam-bracings | 2046EF51B46 | EF5-46 | SHS300*10 | 1 | 782.31 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 09/01/2015 | 21 |
| 3318 | beam-bracings | 2046EF51BR20 | EF5-20 | CHS168.3*10.0 | 1 | 251.41 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3319 | beam-bracings | 2046EF51BR21 | EF5-21 | CHS168.3*10.0 | 1 | 251.41 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3320 | beam-bracings | 2046EF51BR22 | EF5-22 | CHS168.3*10.0 | 1 | 237.21 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3321 | beam-bracings | 2046EF51BR23 | EF5-23 | CHS168.3*10.0 | 1 | 237.21 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 15/01/2015 | 23 |
| 3322 | beam-bracings | 2046EF51LPL24 | EF5-24 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3323 | beam-bracings | 2046EF51LPL25 | EF5-25 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3324 | beam-bracings | 2046EF51LPL26 | EF5-26 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3325 | beam-bracings | 2046EF51LPL27 | EF5-27 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3326 | beam-bracings | 2046EF51LPL28 | EF5-28 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3327 | beam-bracings | 2046EF51LPL29 | EF5-29 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 02/02/2015 | 30 |
| 3328 | beam-bracings | 2046EF51LPL30 | EF5-30 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3329 | beam-bracings | 2046EF51LPL31 | EF5-31 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3330 | beam-bracings | 2046EF51LPL32 | EF5-32 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3331 | beam-bracings | 2046EF51LPL33 | EF5-33 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 01/08/2015 | 166 |
| 3332 | beam-bracings | 2046EF51LPL34 | EF5-34 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 01/08/2015 | 166 |
| 3333 | beam-bracings | 2046EF51LPL35 | EF5-35 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3334 | beam-bracings | 2046EF51LPL36 | EF5-36 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3335 | beam-bracings | 2046EF51LPL37 | EF5-37 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3336 | beam-bracings | 2046EF51LPL38 | EF5-38 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3337 | beam-bracings | 2046EF51LPL39 | EF5-39 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3338 | beam-bracings | 2046EF51LPL41 | EF5-41 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3339 | beam-bracings | 2046EF51LPL42 | EF5-42 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3340 | beam-bracings | 2046EF51LPL43 | EF5-43 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3341 | beam-bracings | 2046EF51LPL44 | EF5-44 | PL10*330 | 1 | 10.62 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3342 | beam-bracings | 2046EF51LPL54 | EF5-54 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3343 | beam-bracings | 2046EF51LPL55 | EF5-55 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3344 | beam-bracings | 2046EF51LPL56 | EF5-56 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3345 | beam-bracings | 2046EF51LPL57 | EF5-57 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3346 | beam-bracings | 2046EF51LPL58 | EF5-58 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3347 | beam-bracings | 2046EF51LPL59 | EF5-59 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3348 | beam-bracings | 2046EF51LPL60 | EF5-60 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3349 | beam-bracings | 2046EF51LPL61 | EF5-61 | PL10*200 | 1 | 5.18 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 22/01/2015 | 25 |
| 3350 | beam-bracings | 2046EF51V40 | EF5-40 | RHS300*100*10 | 1 | 1197.67 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 06/10/2014 | 28/01/2015 | 28 |
| 3351 | beam-bracings | 2046FF51B19 | FF5-19 | SHS300*10 | 1 | 774.13 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3352 | beam-bracings | 2046FF51B45 | FF5-45 | SHS300*10 | 1 | 785.92 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 09/01/2015 | 21 |
| 3353 | beam-bracings | 2046FF51B46 | FF5-46 | SHS300*10 | 1 | 789.36 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 24/02/2015 | 42 |
| 3354 | beam-bracings | 2046FF51BR20 | FF5-20 | CHS168.3*10.0 | 1 | 251.41 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3355 | beam-bracings | 2046FF51BR21 | FF5-21 | CHS168.3*10.0 | 1 | 251.41 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3356 | beam-bracings | 2046FF51BR22 | FF5-22 | CHS168.3*10.0 | 1 | 237.21 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3357 | beam-bracings | 2046FF51BR23 | FF5-23 | CHS168.3*10.0 | 1 | 237.21 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3358 | beam-bracings | 2046FF51LPL24 | FF5-24 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3359 | beam-bracings | 2046FF51LPL25 | FF5-25 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3360 | beam-bracings | 2046FF51LPL26 | FF5-26 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3361 | beam-bracings | 2046FF51LPL27 | FF5-27 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3362 | beam-bracings | 2046FF51LPL28 | FF5-28 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3363 | beam-bracings | 2046FF51LPL29 | FF5-29 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3364 | beam-bracings | 2046FF51LPL30 | FF5-30 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3365 | beam-bracings | 2046FF51LPL31 | FF5-31 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3366 | beam-bracings | 2046FF51LPL32 | FF5-32 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3367 | beam-bracings | 2046FF51LPL33 | FF5-33 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3368 | beam-bracings | 2046FF51LPL34 | FF5-34 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3369 | beam-bracings | 2046FF51LPL35 | FF5-35 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3370 | beam-bracings | 2046FF51LPL36 | FF5-36 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3371 | beam-bracings | 2046FF51LPL37 | FF5-37 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3372 | beam-bracings | 2046FF51LPL38 | FF5-38 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3373 | beam-bracings | 2046FF51LPL39 | FF5-39 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3374 | beam-bracings | 2046FF51LPL41 | FF5-41 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3375 | beam-bracings | 2046FF51LPL42 | FF5-42 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3376 | beam-bracings | 2046FF51LPL43 | FF5-43 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3377 | beam-bracings | 2046FF51LPL44 | FF5-44 | PL10*330 | 1 | 10.62 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3378 | beam-bracings | 2046FF51LPL54 | FF5-54 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3379 | beam-bracings | 2046FF51LPL55 | FF5-55 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3380 | beam-bracings | 2046FF51LPL56 | FF5-56 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3381 | beam-bracings | 2046FF51LPL57 | FF5-57 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3382 | beam-bracings | 2046FF51LPL58 | FF5-58 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3383 | beam-bracings | 2046FF51LPL59 | FF5-59 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3384 | beam-bracings | 2046FF51LPL60 | FF5-60 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3385 | beam-bracings | 2046FF51LPL61 | FF5-61 | PL10*200 | 1 | 5.18 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3386 | beam-bracings | 2046FF51V40 | FF5-40 | RHS300*100*10 | 1 | 1197.67 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3387 | beam-bracings | 2046GF51B19 | GF5-19 | SHS300*10 | 1 | 774.13 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 09/01/2015 | 21 |
| 3388 | beam-bracings | 2046GF51B45 | GF5-45 | SHS300*10 | 1 | 782.26 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 27/02/2015 | 44 |
| 3389 | beam-bracings | 2046GF51B46 | GF5-46 | SHS300*10 | 1 | 782.31 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3390 | beam-bracings | 2046GF51BR20 | GF5-20 | CHS168.3*10.0 | 1 | 251.41 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 19/01/2015 | 24 |
| 3391 | beam-bracings | 2046GF51BR21 | GF5-21 | CHS168.3*10.0 | 1 | 251.41 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3392 | beam-bracings | 2046GF51BR22 | GF5-22 | CHS168.3*10.0 | 1 | 237.21 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3393 | beam-bracings | 2046GF51BR23 | GF5-23 | CHS168.3*10.0 | 1 | 237.21 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3394 | beam-bracings | 2046GF51LPL24 | GF5-24 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3395 | beam-bracings | 2046GF51LPL25 | GF5-25 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3396 | beam-bracings | 2046GF51LPL26 | GF5-26 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3397 | beam-bracings | 2046GF51LPL27 | GF5-27 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3398 | beam-bracings | 2046GF51LPL28 | GF5-28 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3399 | beam-bracings | 2046GF51LPL29 | GF5-29 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3400 | beam-bracings | 2046GF51LPL30 | GF5-30 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3401 | beam-bracings | 2046GF51LPL31 | GF5-31 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3402 | beam-bracings | 2046GF51LPL32 | GF5-32 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3403 | beam-bracings | 2046GF51LPL33 | GF5-33 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3404 | beam-bracings | 2046GF51LPL34 | GF5-34 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3405 | beam-bracings | 2046GF51LPL35 | GF5-35 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3406 | beam-bracings | 2046GF51LPL36 | GF5-36 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3407 | beam-bracings | 2046GF51LPL37 | GF5-37 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3408 | beam-bracings | 2046GF51LPL38 | GF5-38 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3409 | beam-bracings | 2046GF51LPL39 | GF5-39 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3410 | beam-bracings | 2046GF51LPL41 | GF5-41 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3411 | beam-bracings | 2046GF51LPL42 | GF5-42 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3412 | beam-bracings | 2046GF51LPL43 | GF5-43 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3413 | beam-bracings | 2046GF51LPL44 | GF5-44 | PL10*330 | 1 | 11.14 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3414 | beam-bracings | 2046GF51LPL54 | GF5-54 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3415 | beam-bracings | 2046GF51LPL55 | GF5-55 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3416 | beam-bracings | 2046GF51LPL56 | GF5-56 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3417 | beam-bracings | 2046GF51LPL57 | GF5-57 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3418 | beam-bracings | 2046GF51LPL58 | GF5-58 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3419 | beam-bracings | 2046GF51LPL59 | GF5-59 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3420 | beam-bracings | 2046GF51LPL60 | GF5-60 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3421 | beam-bracings | 2046GF51LPL61 | GF5-61 | PL10*200 | 1 | 5.49 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3422 | beam-bracings | 2046GF51V40 | GF5-40 | RHS300*100*10 | 1 | 1197.67 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3423 | beam-bracings | 2046HF51B19 | HF5-19 | SHS300*10 | 1 | 774.13 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3424 | beam-bracings | 2046HF51B45 | HF5-45 | SHS300*10 | 1 | 782.26 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 09/01/2015 | 21 |
| 3425 | beam-bracings | 2046HF51B46 | HF5-46 | SHS300*10 | 1 | 782.31 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 06/01/2015 | 20 |
| 3426 | beam-bracings | 2046HF51BR20 | HF5-20 | CHS168.3*10.0 | 1 | 251.41 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3427 | beam-bracings | 2046HF51BR21 | HF5-21 | CHS168.3*10.0 | 1 | 251.41 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3428 | beam-bracings | 2046HF51BR22 | HF5-22 | CHS168.3*10.0 | 1 | 237.21 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3429 | beam-bracings | 2046HF51BR23 | HF5-23 | CHS168.3*10.0 | 1 | 237.21 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3430 | beam-bracings | 2046HF51LPL24 | HF5-24 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3431 | beam-bracings | 2046HF51LPL25 | HF5-25 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3432 | beam-bracings | 2046HF51LPL26 | HF5-26 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3433 | beam-bracings | 2046HF51LPL27 | HF5-27 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3434 | beam-bracings | 2046HF51LPL28 | HF5-28 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3435 | beam-bracings | 2046HF51LPL29 | HF5-29 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3436 | beam-bracings | 2046HF51LPL30 | HF5-30 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3437 | beam-bracings | 2046HF51LPL31 | HF5-31 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3438 | beam-bracings | 2046HF51LPL32 | HF5-32 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3439 | beam-bracings | 2046HF51LPL33 | HF5-33 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3440 | beam-bracings | 2046HF51LPL34 | HF5-34 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3441 | beam-bracings | 2046HF51LPL35 | HF5-35 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3442 | beam-bracings | 2046HF51LPL36 | HF5-36 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3443 | beam-bracings | 2046HF51LPL37 | HF5-37 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3444 | beam-bracings | 2046HF51LPL38 | HF5-38 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3445 | beam-bracings | 2046HF51LPL39 | HF5-39 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3446 | beam-bracings | 2046HF51LPL41 | HF5-41 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3447 | beam-bracings | 2046HF51LPL42 | HF5-42 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3448 | beam-bracings | 2046HF51LPL43 | HF5-43 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3449 | beam-bracings | 2046HF51LPL44 | HF5-44 | PL10*330 | 1 | 11.14 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3450 | beam-bracings | 2046HF51LPL54 | HF5-54 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3451 | beam-bracings | 2046HF51LPL55 | HF5-55 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3452 | beam-bracings | 2046HF51LPL56 | HF5-56 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3453 | beam-bracings | 2046HF51LPL57 | HF5-57 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3454 | beam-bracings | 2046HF51LPL58 | HF5-58 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3455 | beam-bracings | 2046HF51LPL59 | HF5-59 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3456 | beam-bracings | 2046HF51LPL60 | HF5-60 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3457 | beam-bracings | 2046HF51LPL61 | HF5-61 | PL10*200 | 1 | 5.49 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3458 | beam-bracings | 2046HF51V40 | HF5-40 | RHS300*100*10 | 1 | 1197.67 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3459 | beam-bracings | 2046IF51B19 | IF5-19 | SHS300*10 | 1 | 774.13 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3460 | beam-bracings | 2046IF51B45 | IF5-45 | SHS300*10 | 1 | 782.26 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3461 | beam-bracings | 2046IF51B46 | IF5-46 | SHS300*10 | 1 | 782.31 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3462 | beam-bracings | 2046IF51BR20 | IF5-20 | CHS168.3*10.0 | 1 | 251.41 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3463 | beam-bracings | 2046IF51BR21 | IF5-21 | CHS168.3*10.0 | 1 | 251.41 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3464 | beam-bracings | 2046IF51BR22 | IF5-22 | CHS168.3*10.0 | 1 | 237.21 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3465 | beam-bracings | 2046IF51BR23 | IF5-23 | CHS168.3*10.0 | 1 | 237.21 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3466 | beam-bracings | 2046IF51LPL24 | IF5-24 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3467 | beam-bracings | 2046IF51LPL25 | IF5-25 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3468 | beam-bracings | 2046IF51LPL26 | IF5-26 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3469 | beam-bracings | 2046IF51LPL27 | IF5-27 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3470 | beam-bracings | 2046IF51LPL28 | IF5-28 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3471 | beam-bracings | 2046IF51LPL29 | IF5-29 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3472 | beam-bracings | 2046IF51LPL30 | IF5-30 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3473 | beam-bracings | 2046IF51LPL31 | IF5-31 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3474 | beam-bracings | 2046IF51LPL32 | IF5-32 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3475 | beam-bracings | 2046IF51LPL33 | IF5-33 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3476 | beam-bracings | 2046IF51LPL34 | IF5-34 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3477 | beam-bracings | 2046IF51LPL35 | IF5-35 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3478 | beam-bracings | 2046IF51LPL36 | IF5-36 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3479 | beam-bracings | 2046IF51LPL37 | IF5-37 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3480 | beam-bracings | 2046IF51LPL38 | IF5-38 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3481 | beam-bracings | 2046IF51LPL39 | IF5-39 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3482 | beam-bracings | 2046IF51LPL41 | IF5-41 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3483 | beam-bracings | 2046IF51LPL42 | IF5-42 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3484 | beam-bracings | 2046IF51LPL43 | IF5-43 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3485 | beam-bracings | 2046IF51LPL44 | IF5-44 | PL10*330 | 1 | 11.14 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3486 | beam-bracings | 2046IF51LPL54 | IF5-54 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3487 | beam-bracings | 2046IF51LPL55 | IF5-55 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3488 | beam-bracings | 2046IF51LPL56 | IF5-56 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3489 | beam-bracings | 2046IF51LPL57 | IF5-57 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3490 | beam-bracings | 2046IF51LPL58 | IF5-58 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3491 | beam-bracings | 2046IF51LPL59 | IF5-59 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3492 | beam-bracings | 2046IF51LPL60 | IF5-60 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3493 | beam-bracings | 2046IF51LPL61 | IF5-61 | PL10*200 | 1 | 5.49 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3494 | beam-bracings | 2046IF51V40 | IF5-40 | RHS300*100*10 | 1 | 1197.67 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3495 | beam-bracings | 2046JF51B19 | JF5-19 | SHS300*10 | 1 | 954.40 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 09/01/2015 | 21 |
| 3496 | beam-bracings | 2046JF51B53 | JF5-53 | SHS300*10 | 1 | 785.92 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3497 | beam-bracings | 2046JF51B54 | JF5-54 | SHS300*10 | 1 | 789.36 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3498 | beam-bracings | 2046JF51BR20 | JF5-20 | CHS168.3*10.0 | 1 | 251.41 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3499 | beam-bracings | 2046JF51BR21 | JF5-21 | CHS168.3*10.0 | 1 | 251.41 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3500 | beam-bracings | 2046JF51BR22 | JF5-22 | CHS168.3*10.0 | 1 | 237.21 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3501 | beam-bracings | 2046JF51BR23 | JF5-23 | CHS168.3*10.0 | 1 | 237.21 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3502 | beam-bracings | 2046JF51BR57 | JF5-57 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3503 | beam-bracings | 2046JF51BR58 | JF5-58 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3504 | beam-bracings | 2046JF51BR61 | JF5-61 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3505 | beam-bracings | 2046JF51BR62 | JF5-62 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3506 | beam-bracings | 2046JF51LPL24 | JF5-24 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3507 | beam-bracings | 2046JF51LPL25 | JF5-25 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3508 | beam-bracings | 2046JF51LPL26 | JF5-26 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3509 | beam-bracings | 2046JF51LPL27 | JF5-27 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3510 | beam-bracings | 2046JF51LPL28 | JF5-28 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3511 | beam-bracings | 2046JF51LPL29 | JF5-29 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3512 | beam-bracings | 2046JF51LPL30 | JF5-30 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3513 | beam-bracings | 2046JF51LPL31 | JF5-31 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3514 | beam-bracings | 2046JF51LPL32 | JF5-32 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3515 | beam-bracings | 2046JF51LPL33 | JF5-33 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3516 | beam-bracings | 2046JF51LPL34 | JF5-34 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3517 | beam-bracings | 2046JF51LPL35 | JF5-35 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3518 | beam-bracings | 2046JF51LPL36 | JF5-36 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3519 | beam-bracings | 2046JF51LPL37 | JF5-37 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3520 | beam-bracings | 2046JF51LPL38 | JF5-38 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |
| 3521 | beam-bracings | 2046JF51LPL39 | JF5-39 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |
| 3522 | beam-bracings | 2046JF51LPL40 | JF5-40 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3523 | beam-bracings | 2046JF51LPL41 | JF5-41 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3524 | beam-bracings | 2046JF51LPL42 | JF5-42 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3525 | beam-bracings | 2046JF51LPL43 | JF5-43 | PL10*250 | 1 | 8.44 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3526 | beam-bracings | 2046JF51LPL44 | JF5-44 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3527 | beam-bracings | 2046JF51LPL45 | JF5-45 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |
| 3528 | beam-bracings | 2046JF51LPL46 | JF5-46 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3529 | beam-bracings | 2046JF51LPL47 | JF5-47 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3530 | beam-bracings | 2046JF51LPL49 | JF5-49 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3531 | beam-bracings | 2046JF51LPL50 | JF5-50 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3532 | beam-bracings | 2046JF51LPL51 | JF5-51 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3533 | beam-bracings | 2046JF51LPL52 | JF5-52 | PL10*330 | 1 | 10.62 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3534 | beam-bracings | 2046JF51LPL68 | JF5-68 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3535 | beam-bracings | 2046JF51LPL69 | JF5-69 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3536 | beam-bracings | 2046JF51LPL70 | JF5-70 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3537 | beam-bracings | 2046JF51LPL71 | JF5-71 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3538 | beam-bracings | 2046JF51LPL72 | JF5-72 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3539 | beam-bracings | 2046JF51LPL73 | JF5-73 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3540 | beam-bracings | 2046JF51LPL74 | JF5-74 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3541 | beam-bracings | 2046JF51LPL75 | JF5-75 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3542 | beam-bracings | 2046JF51LPL76 | JF5-76 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3543 | beam-bracings | 2046JF51LPL77 | JF5-77 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3544 | beam-bracings | 2046JF51LPL78 | JF5-78 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3545 | beam-bracings | 2046JF51LPL79 | JF5-79 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3546 | beam-bracings | 2046JF51LPL80 | JF5-80 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3547 | beam-bracings | 2046JF51LPL81 | JF5-81 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3548 | beam-bracings | 2046JF51LPL82 | JF5-82 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 13/03/2015 | 50 |
| 3549 | beam-bracings | 2046JF51LPL83 | JF5-83 | PL10*200 | 1 | 5.18 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 04/03/2015 | 46 |
| 3550 | beam-bracings | 2046JF51TR48 | JF5-48 | RHS300*100*10 | 1 | 1197.67 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3551 | beam-bracings | 2046DF34B86 | DF3-86 | HEB400 | 1 | 558.11 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 17/04/2015 | 70 |
| 3552 | beam-bracings | 2046DF34B106 | DF3-106 | SHS300*10 | 1 | 814.37 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3553 | beam-bracings | 2046DF34B107 | DF3-107 | SHS300*10 | 1 | 1062.94 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3554 | beam-bracings | 2046DF34B108 | DF3-108 | SHS300*10 | 1 | 786.71 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3555 | beam-bracings | 2046DF34B109 | DF3-109 | SHS300*10 | 1 | 12.40 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3556 | beam-bracings | 2046DF34B110 | DF3-110 | HEB300 | 1 | 318.84 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3557 | beam-bracings | 2046DF34BR103 | DF3-103 | CHS355.6*10.0 | 1 | 41.92 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3558 | beam-bracings | 2046DF34BR104 | DF3-104 | CHS323.9*6.3 | 1 | 41.92 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 19/01/2015 | 24 |
| 3559 | beam-bracings | 2046DF34BR105 | DF3-105 | CHS323.9*6.3 | 1 | 19.21 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3560 | beam-bracings | 2046DF34LPL74 | DF3-74 | PL20*390 | 1 | 19.21 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 13/02/2015 | 36 |
| 3561 | beam-bracings | 2046DF34LPL75 | DF3-75 | PL20*390 | 1 | 19.21 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 13/02/2015 | 36 |
| 3562 | beam-bracings | 2046DF34LPL76 | DF3-76 | PL20*390 | 1 | 19.21 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 13/02/2015 | 36 |
| 3563 | beam-bracings | 2046DF34LPL77 | DF3-77 | PL20*390 | 1 | 461.88 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 13/02/2015 | 36 |
| 3564 | beam-bracings | 2046DF34LPL78 | DF3-78 | PL15*350 | 1 | 461.88 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |
| 3565 | beam-bracings | 2046DF34LPL79 | DF3-79 | PL15*350 | 1 | 271.48 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |
| 3566 | beam-bracings | 2046DF34LPL80 | DF3-80 | PL15*350 | 1 | 238.50 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3567 | beam-bracings | 2046DF34LPL81 | DF3-81 | PL15*350 | 1 | 17.72 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 06/03/2015 | 47 |
| 3568 | beam-bracings | 2046DF34LPL82 | DF3-82 | PL15*350 | 1 | 17.72 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3569 | beam-bracings | 2046DF34LPL83 | DF3-83 | PL15*350 | 1 | 17.72 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3570 | beam-bracings | 2046DF34LPL84 | DF3-84 | PL15*350 | 1 | 17.72 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3571 | beam-bracings | 2046DF34LPL85 | DF3-85 | PL15*350 | 1 | 17.72 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3572 | beam-bracings | 2046DF34LPL87 | DF3-87 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3573 | beam-bracings | 2046DF34LPL88 | DF3-88 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3574 | beam-bracings | 2046DF34LPL89 | DF3-89 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3575 | beam-bracings | 2046DF34LPL90 | DF3-90 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3576 | beam-bracings | 2046DF34LPL91 | DF3-91 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3577 | beam-bracings | 2046DF34LPL92 | DF3-92 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3578 | beam-bracings | 2046DF34LPL93 | DF3-93 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3579 | beam-bracings | 2046DF34LPL94 | DF3-94 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3580 | beam-bracings | 2046DF34LPL95 | DF3-95 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3581 | beam-bracings | 2046DF34LPL96 | DF3-96 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3582 | beam-bracings | 2046DF34LPL97 | DF3-97 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3583 | beam-bracings | 2046DF34LPL98 | DF3-98 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 02/02/2015 | 30 |
| 3584 | beam-bracings | 2046DF34LPL99 | DF3-99 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3585 | beam-bracings | 2046DF34LPL100 | DF3-100 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3586 | beam-bracings | 2046DF34LPL101 | DF3-101 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3587 | beam-bracings | 2046DF34LPL102 | DF3-102 | PL10*330 | 1 | 11.14 | D | 3 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 01/08/2015 | 166 |
| 3588 | beam-bracings | 2046AF44B196 | AF4-196 | SHS300*10 | 1 | 721.49 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 19/01/2015 | 24 |
| 3589 | beam-bracings | 2046AF44B197 | AF4-197 | SHS300*10 | 1 | 721.24 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3590 | beam-bracings | 2046AF44B198 | AF4-198 | SHS300*10 | 1 | 765.99 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 12/01/2015 | 22 |
| 3591 | beam-bracings | 2046AF44B199 | AF4-199 | HEB300 | 1 | 221.88 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3592 | beam-bracings | 2046AF44B200 | AF4-200 | HEB300 | 1 | 221.88 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3593 | beam-bracings | 2046AF44B201 | AF4-201 | HEB300 | 1 | 221.88 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3594 | beam-bracings | 2046AF44B202 | AF4-202 | HEB300 | 1 | 221.88 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3595 | beam-bracings | 2046AF44B228 | AF4-228 | HEA220 | 1 | 106.33 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3596 | beam-bracings | 2046AF44B230 | AF4-230 | HEA220 | 1 | 106.33 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3597 | beam-bracings | 2046AF44BR189 | AF4-189 | CHS323.9*6.3 | 1 | 268.78 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3598 | beam-bracings | 2046AF44BR190 | AF4-190 | CHS323.9*6.3 | 1 | 276.49 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3599 | beam-bracings | 2046AF44BR191 | AF4-191 | CHS323.9*6.3 | 1 | 640.57 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 19/01/2015 | 24 |
| 3600 | beam-bracings | 2046AF44BR192 | AF4-192 | CHS323.9*6.3 | 1 | 640.25 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 19/01/2015 | 24 |
| 3601 | beam-bracings | 2046AF44BR193 | AF4-193 | CHS323.9*6.3 | 1 | 268.78 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3602 | beam-bracings | 2046AF44BR194 | AF4-194 | CHS323.9*6.3 | 1 | 277.45 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3603 | beam-bracings | 2046AF44BR231 | AF4-231 | CHS139.7*8.0 | 1 | 67.06 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3604 | beam-bracings | 2046AF44BR232 | AF4-232 | CHS139.7*8.0 | 1 | 67.06 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3605 | beam-bracings | 2046AF44BR233 | AF4-233 | CHS139.7*8.0 | 1 | 53.00 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3606 | beam-bracings | 2046AF44BR234 | AF4-234 | CHS139.7*8.0 | 1 | 53.00 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3607 | beam-bracings | 2046AF44LPL173 | AF4-173 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3608 | beam-bracings | 2046AF44LPL174 | AF4-174 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3609 | beam-bracings | 2046AF44LPL175 | AF4-175 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3610 | beam-bracings | 2046AF44LPL176 | AF4-176 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3611 | beam-bracings | 2046AF44LPL177 | AF4-177 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3612 | beam-bracings | 2046AF44LPL178 | AF4-178 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3613 | beam-bracings | 2046AF44LPL179 | AF4-179 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3614 | beam-bracings | 2046AF44LPL180 | AF4-180 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3615 | beam-bracings | 2046AF44LPL181 | AF4-181 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3616 | beam-bracings | 2046AF44LPL182 | AF4-182 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3617 | beam-bracings | 2046AF44LPL183 | AF4-183 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3618 | beam-bracings | 2046AF44LPL184 | AF4-184 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3619 | beam-bracings | 2046AF44LPL185 | AF4-185 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3620 | beam-bracings | 2046AF44LPL186 | AF4-186 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3621 | beam-bracings | 2046AF44LPL187 | AF4-187 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3622 | beam-bracings | 2046AF44LPL188 | AF4-188 | PL10*330 | 1 | 11.14 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3623 | beam-bracings | 2046AF44LPL203 | AF4-203 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3624 | beam-bracings | 2046AF44LPL204 | AF4-204 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3625 | beam-bracings | 2046AF44LPL205 | AF4-205 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3626 | beam-bracings | 2046AF44LPL206 | AF4-206 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3627 | beam-bracings | 2046AF44LPL207 | AF4-207 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3628 | beam-bracings | 2046AF44LPL208 | AF4-208 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3629 | beam-bracings | 2046AF44LPL209 | AF4-209 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3630 | beam-bracings | 2046AF44LPL210 | AF4-210 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3631 | beam-bracings | 2046AF44LPL211 | AF4-211 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3632 | beam-bracings | 2046AF44LPL212 | AF4-212 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3633 | beam-bracings | 2046AF44LPL213 | AF4-213 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3634 | beam-bracings | 2046AF44LPL214 | AF4-214 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3635 | beam-bracings | 2046AF44LPL215 | AF4-215 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3636 | beam-bracings | 2046AF44LPL216 | AF4-216 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3637 | beam-bracings | 2046AF44LPL217 | AF4-217 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3638 | beam-bracings | 2046AF44LPL218 | AF4-218 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3639 | beam-bracings | 2046AF44LPL219 | AF4-219 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3640 | beam-bracings | 2046AF44LPL220 | AF4-220 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3641 | beam-bracings | 2046AF44LPL221 | AF4-221 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 22/01/2015 | 25 |
| 3642 | beam-bracings | 2046AF44LPL222 | AF4-222 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3643 | beam-bracings | 2046AF44LPL223 | AF4-223 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3644 | beam-bracings | 2046AF44LPL224 | AF4-224 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3645 | beam-bracings | 2046AF44LPL225 | AF4-225 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3646 | beam-bracings | 2046AF44LPL226 | AF4-226 | PL15*350 | 1 | 17.72 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 15/01/2015 | 23 |
| 3647 | beam-bracings | 2046AF44LPL287 | AF4-287 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3648 | beam-bracings | 2046AF44LPL288 | AF4-288 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3649 | beam-bracings | 2046AF44LPL289 | AF4-289 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3650 | beam-bracings | 2046AF44LPL290 | AF4-290 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3651 | beam-bracings | 2046AF44LPL291 | AF4-291 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3652 | beam-bracings | 2046AF44LPL292 | AF4-292 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3653 | beam-bracings | 2046AF44LPL293 | AF4-293 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3654 | beam-bracings | 2046AF44LPL294 | AF4-294 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3655 | beam-bracings | 2046AF44LPL295 | AF4-295 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3656 | beam-bracings | 2046AF44LPL296 | AF4-296 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3657 | beam-bracings | 2046AF44LPL297 | AF4-297 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3658 | beam-bracings | 2046AF44LPL298 | AF4-298 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3659 | beam-bracings | 2046AF44LPL299 | AF4-299 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3660 | beam-bracings | 2046AF44LPL300 | AF4-300 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3661 | beam-bracings | 2046AF44LPL301 | AF4-301 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3662 | beam-bracings | 2046AF44LPL302 | AF4-302 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3663 | beam-bracings | 2046AF44LPL327 | AF4-327 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3664 | beam-bracings | 2046AF44LPL328 | AF4-328 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3665 | beam-bracings | 2046AF44LPL329 | AF4-329 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3666 | beam-bracings | 2046AF44LPL330 | AF4-330 | PL10*170 | 1 | 4.67 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 28/01/2015 | 28 |
| 3667 | beam-bracings | 2046AF44TR195 | AF4-195 | SHS300*10 | 1 | 2316.23 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 27/04/2015 | 74 |
| 3668 | beam-bracings | 2046AF44V170 | AF4-170 | HEB500 | 1 | 885.08 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3669 | beam-bracings | 2046AF44V171 | AF4-171 | HEB500 | 1 | 885.81 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 08/10/2014 | 04/02/2015 | 31 |
| 3670 | beam-bracings | 2046BF44B155 | BF4-155 | SHS300*10 | 1 | 721.49 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3671 | beam-bracings | 2046BF44B156 | BF4-156 | SHS300*10 | 1 | 721.24 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 12/01/2015 | 22 |
| 3672 | beam-bracings | 2046BF44B157 | BF4-157 | SHS300*10 | 1 | 765.99 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 12/01/2015 | 22 |
| 3673 | beam-bracings | 2046BF44B158 | BF4-158 | HEB300 | 1 | 221.88 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3674 | beam-bracings | 2046BF44B183 | BF4-183 | HEA220 | 1 | 102.21 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3675 | beam-bracings | 2046BF44B184 | BF4-184 | HEA220 | 1 | 106.33 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3676 | beam-bracings | 2046BF44BR148 | BF4-148 | CHS323.9*6.3 | 1 | 268.78 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3677 | beam-bracings | 2046BF44BR149 | BF4-149 | CHS323.9*6.3 | 1 | 277.45 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3678 | beam-bracings | 2046BF44BR150 | BF4-150 | CHS323.9*6.3 | 1 | 268.78 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3679 | beam-bracings | 2046BF44BR151 | BF4-151 | CHS323.9*6.3 | 1 | 276.49 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 19/01/2015 | 24 |
| 3680 | beam-bracings | 2046BF44BR152 | BF4-152 | CHS323.9*6.3 | 1 | 640.57 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3681 | beam-bracings | 2046BF44BR153 | BF4-153 | CHS323.9*6.3 | 1 | 53.00 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 19/01/2015 | 24 |
| 3682 | beam-bracings | 2046BF44BR185 | BF4-185 | CHS139.7*8.0 | 1 | 53.00 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3683 | beam-bracings | 2046BF44BR186 | BF4-186 | CHS139.7*8.0 | 1 | 67.06 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3684 | beam-bracings | 2046BF44BR187 | BF4-187 | CHS139.7*8.0 | 1 | 67.06 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3685 | beam-bracings | 2046BF44BR188 | BF4-188 | CHS139.7*8.0 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3686 | beam-bracings | 2046BF44LPL132 | BF4-132 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3687 | beam-bracings | 2046BF44LPL133 | BF4-133 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3688 | beam-bracings | 2046BF44LPL134 | BF4-134 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3689 | beam-bracings | 2046BF44LPL135 | BF4-135 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3690 | beam-bracings | 2046BF44LPL136 | BF4-136 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3691 | beam-bracings | 2046BF44LPL137 | BF4-137 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3692 | beam-bracings | 2046BF44LPL138 | BF4-138 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3693 | beam-bracings | 2046BF44LPL139 | BF4-139 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3694 | beam-bracings | 2046BF44LPL140 | BF4-140 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3695 | beam-bracings | 2046BF44LPL141 | BF4-141 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3696 | beam-bracings | 2046BF44LPL142 | BF4-142 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3697 | beam-bracings | 2046BF44LPL143 | BF4-143 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3698 | beam-bracings | 2046BF44LPL144 | BF4-144 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3699 | beam-bracings | 2046BF44LPL145 | BF4-145 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3700 | beam-bracings | 2046BF44LPL146 | BF4-146 | PL10*330 | 1 | 10.62 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3701 | beam-bracings | 2046BF44LPL147 | BF4-147 | PL10*330 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3702 | beam-bracings | 2046BF44LPL159 | BF4-159 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3703 | beam-bracings | 2046BF44LPL160 | BF4-160 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3704 | beam-bracings | 2046BF44LPL161 | BF4-161 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3705 | beam-bracings | 2046BF44LPL162 | BF4-162 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3706 | beam-bracings | 2046BF44LPL163 | BF4-163 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3707 | beam-bracings | 2046BF44LPL164 | BF4-164 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3708 | beam-bracings | 2046BF44LPL166 | BF4-166 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3709 | beam-bracings | 2046BF44LPL167 | BF4-167 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3710 | beam-bracings | 2046BF44LPL169 | BF4-169 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3711 | beam-bracings | 2046BF44LPL171 | BF4-171 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3712 | beam-bracings | 2046BF44LPL172 | BF4-172 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3713 | beam-bracings | 2046BF44LPL173 | BF4-173 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3714 | beam-bracings | 2046BF44LPL175 | BF4-175 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3715 | beam-bracings | 2046BF44LPL180 | BF4-180 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3716 | beam-bracings | 2046BF44LPL181 | BF4-181 | PL15*350 | 1 | 16.90 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3717 | beam-bracings | 2046BF44LPL182 | BF4-182 | PL15*350 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/02/2015 | 36 |
| 3718 | beam-bracings | 2046BF44LPL257 | BF4-257 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/03/2015 | 50 |
| 3719 | beam-bracings | 2046BF44LPL258 | BF4-258 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/03/2015 | 50 |
| 3720 | beam-bracings | 2046BF44LPL259 | BF4-259 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3721 | beam-bracings | 2046BF44LPL260 | BF4-260 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3722 | beam-bracings | 2046BF44LPL261 | BF4-261 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3723 | beam-bracings | 2046BF44LPL262 | BF4-262 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3724 | beam-bracings | 2046BF44LPL263 | BF4-263 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3725 | beam-bracings | 2046BF44LPL266 | BF4-266 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3726 | beam-bracings | 2046BF44LPL267 | BF4-267 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3727 | beam-bracings | 2046BF44LPL268 | BF4-268 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3728 | beam-bracings | 2046BF44LPL269 | BF4-269 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3729 | beam-bracings | 2046BF44LPL270 | BF4-270 | PL10*170 | 1 | 4.40 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3730 | beam-bracings | 2046BF44LPL272 | BF4-272 | PL10*170 | 1 | 4.67 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3731 | beam-bracings | 2046BF44LPL297 | BF4-297 | PL10*170 | 1 | 4.67 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3732 | beam-bracings | 2046BF44LPL299 | BF4-299 | PL10*170 | 1 | 4.67 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3733 | beam-bracings | 2046BF44LPL300 | BF4-300 | PL10*170 | 1 | 2316.23 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3734 | beam-bracings | 2046BF44TR154 | BF4-154 | SHS300*10 | 1 | 885.08 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 10/04/2015 | 66 |
| 3735 | beam-bracings | 2046BF44V130 | BF4-130 | HEB500 | 1 | 885.08 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 19/01/2015 | 24 |
| 3736 | beam-bracings | 2046CF44B153 | CF4-153 | SHS300*10 | 1 | 721.49 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 12/01/2015 | 22 |
| 3737 | beam-bracings | 2046CF44B154 | CF4-154 | SHS300*10 | 1 | 721.24 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 12/01/2015 | 22 |
| 3738 | beam-bracings | 2046CF44B155 | CF4-155 | SHS300*10 | 1 | 765.99 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3739 | beam-bracings | 2046CF44B156 | CF4-156 | HEB300 | 1 | 221.88 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3740 | beam-bracings | 2046CF44B181 | CF4-181 | HEA220 | 1 | 102.21 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3741 | beam-bracings | 2046CF44B182 | CF4-182 | HEA220 | 1 | 106.33 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3742 | beam-bracings | 2046CF44BR146 | CF4-146 | CHS323.9*6.3 | 1 | 268.78 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3743 | beam-bracings | 2046CF44BR147 | CF4-147 | CHS323.9*6.3 | 1 | 277.45 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3744 | beam-bracings | 2046CF44BR148 | CF4-148 | CHS323.9*6.3 | 1 | 268.78 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 19/01/2015 | 24 |
| 3745 | beam-bracings | 2046CF44BR149 | CF4-149 | CHS323.9*6.3 | 1 | 276.49 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3746 | beam-bracings | 2046CF44BR150 | CF4-150 | CHS323.9*6.3 | 1 | 640.57 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 19/01/2015 | 24 |
| 3747 | beam-bracings | 2046CF44BR151 | CF4-151 | CHS323.9*6.3 | 1 | 640.25 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3748 | beam-bracings | 2046CF44BR183 | CF4-183 | CHS139.7*8.0 | 1 | 67.06 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3749 | beam-bracings | 2046CF44BR184 | CF4-184 | CHS139.7*8.0 | 1 | 67.06 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 20/04/2015 | 73 |
| 3750 | beam-bracings | 2046CF44BR185 | CF4-185 | CHS139.7*8.0 | 1 | 53.00 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3751 | beam-bracings | 2046CF44BR186 | CF4-186 | CHS139.7*8.0 | 1 | 53.00 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 20/04/2015 | 73 |
| 3752 | beam-bracings | 2046CF44LPL130 | CF4-130 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 28/01/2015 | 28 |
| 3753 | beam-bracings | 2046CF44LPL131 | CF4-131 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 02/02/2015 | 30 |
| 3754 | beam-bracings | 2046CF44LPL132 | CF4-132 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3755 | beam-bracings | 2046CF44LPL133 | CF4-133 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 28/01/2015 | 28 |
| 3756 | beam-bracings | 2046CF44LPL134 | CF4-134 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 28/01/2015 | 28 |
| 3757 | beam-bracings | 2046CF44LPL135 | CF4-135 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 28/01/2015 | 28 |
| 3758 | beam-bracings | 2046CF44LPL136 | CF4-136 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 02/02/2015 | 30 |
| 3759 | beam-bracings | 2046CF44LPL137 | CF4-137 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3760 | beam-bracings | 2046CF44LPL138 | CF4-138 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 28/01/2015 | 28 |
| 3761 | beam-bracings | 2046CF44LPL140 | CF4-140 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 02/02/2015 | 30 |
| 3762 | beam-bracings | 2046CF44LPL142 | CF4-142 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3763 | beam-bracings | 2046CF44LPL143 | CF4-143 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3764 | beam-bracings | 2046CF44LPL144 | CF4-144 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3765 | beam-bracings | 2046CF44LPL145 | CF4-145 | PL10*330 | 1 | 10.62 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3766 | beam-bracings | 2046CF44LPL157 | CF4-157 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3767 | beam-bracings | 2046CF44LPL158 | CF4-158 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3768 | beam-bracings | 2046CF44LPL159 | CF4-159 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3769 | beam-bracings | 2046CF44LPL160 | CF4-160 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3770 | beam-bracings | 2046CF44LPL161 | CF4-161 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3771 | beam-bracings | 2046CF44LPL162 | CF4-162 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3772 | beam-bracings | 2046CF44LPL163 | CF4-163 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3773 | beam-bracings | 2046CF44LPL165 | CF4-165 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3774 | beam-bracings | 2046CF44LPL166 | CF4-166 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3775 | beam-bracings | 2046CF44LPL167 | CF4-167 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3776 | beam-bracings | 2046CF44LPL168 | CF4-168 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3777 | beam-bracings | 2046CF44LPL169 | CF4-169 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3778 | beam-bracings | 2046CF44LPL170 | CF4-170 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3779 | beam-bracings | 2046CF44LPL171 | CF4-171 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3780 | beam-bracings | 2046CF44LPL172 | CF4-172 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3781 | beam-bracings | 2046CF44LPL173 | CF4-173 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3782 | beam-bracings | 2046CF44LPL174 | CF4-174 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3783 | beam-bracings | 2046CF44LPL175 | CF4-175 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3784 | beam-bracings | 2046CF44LPL176 | CF4-176 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3785 | beam-bracings | 2046CF44LPL177 | CF4-177 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3786 | beam-bracings | 2046CF44LPL178 | CF4-178 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3787 | beam-bracings | 2046CF44LPL179 | CF4-179 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3788 | beam-bracings | 2046CF44LPL180 | CF4-180 | PL15*350 | 1 | 16.90 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3789 | beam-bracings | 2046CF44LPL258 | CF4-258 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3790 | beam-bracings | 2046CF44LPL259 | CF4-259 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 10/11/2014 | 12 |
| 3791 | beam-bracings | 2046CF44LPL260 | CF4-260 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3792 | beam-bracings | 2046CF44LPL261 | CF4-261 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3793 | beam-bracings | 2046CF44LPL262 | CF4-262 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3794 | beam-bracings | 2046CF44LPL263 | CF4-263 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3795 | beam-bracings | 2046CF44LPL264 | CF4-264 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3796 | beam-bracings | 2046CF44LPL265 | CF4-265 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3797 | beam-bracings | 2046CF44LPL266 | CF4-266 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3798 | beam-bracings | 2046CF44LPL267 | CF4-267 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3799 | beam-bracings | 2046CF44LPL268 | CF4-268 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3800 | beam-bracings | 2046CF44LPL269 | CF4-269 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3801 | beam-bracings | 2046CF44LPL270 | CF4-270 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3802 | beam-bracings | 2046CF44LPL271 | CF4-271 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3803 | beam-bracings | 2046CF44LPL272 | CF4-272 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3804 | beam-bracings | 2046CF44LPL273 | CF4-273 | PL10*170 | 1 | 4.40 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3805 | beam-bracings | 2046CF44LPL298 | CF4-298 | PL10*170 | 1 | 4.67 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3806 | beam-bracings | 2046CF44LPL299 | CF4-299 | PL10*170 | 1 | 4.67 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3807 | beam-bracings | 2046CF44LPL300 | CF4-300 | PL10*170 | 1 | 4.67 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3808 | beam-bracings | 2046CF44LPL301 | CF4-301 | PL10*170 | 1 | 4.67 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3809 | beam-bracings | 2046CF44TR152 | CF4-152 | SHS300*10 | 1 | 2316.23 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 13/05/2015 | 84 |
| 3810 | beam-bracings | 2046DF44B119 | DF4-119 | SHS300*10 | 1 | 741.91 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3811 | beam-bracings | 2046DF44B120 | DF4-120 | SHS300*10 | 1 | 741.91 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3812 | beam-bracings | 2046DF44B121 | DF4-121 | SHS300*10 | 1 | 765.99 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3813 | beam-bracings | 2046DF44B122 | DF4-122 | HEB300 | 1 | 221.88 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 02/03/2015 | 45 |
| 3814 | beam-bracings | 2046DF44B123 | DF4-123 | HEA220 | 1 | 102.21 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 02/03/2015 | 45 |
| 3815 | beam-bracings | 2046DF44B124 | DF4-124 | HEA220 | 1 | 106.33 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 02/03/2015 | 45 |
| 3816 | beam-bracings | 2046DF44BR125 | DF4-125 | CHS139.7*8.0 | 1 | 67.06 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3817 | beam-bracings | 2046DF44BR126 | DF4-126 | CHS139.7*8.0 | 1 | 67.06 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3818 | beam-bracings | 2046DF44BR127 | DF4-127 | CHS139.7*8.0 | 1 | 53.00 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3819 | beam-bracings | 2046DF44BR128 | DF4-128 | CHS139.7*8.0 | 1 | 53.00 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 22/01/2015 | 25 |
| 3820 | beam-bracings | 2046DF44LPL96 | DF4-96 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3821 | beam-bracings | 2046DF44LPL97 | DF4-97 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3822 | beam-bracings | 2046DF44LPL98 | DF4-98 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3823 | beam-bracings | 2046DF44LPL99 | DF4-99 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3824 | beam-bracings | 2046DF44LPL102 | DF4-102 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3825 | beam-bracings | 2046DF44LPL103 | DF4-103 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3826 | beam-bracings | 2046DF44LPL104 | DF4-104 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3827 | beam-bracings | 2046DF44LPL105 | DF4-105 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 15/01/2015 | 23 |
| 3828 | beam-bracings | 2046DF44LPL106 | DF4-106 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3829 | beam-bracings | 2046DF44LPL107 | DF4-107 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3830 | beam-bracings | 2046DF44LPL108 | DF4-108 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3831 | beam-bracings | 2046DF44LPL109 | DF4-109 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3832 | beam-bracings | 2046DF44LPL110 | DF4-110 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3833 | beam-bracings | 2046DF44LPL111 | DF4-111 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3834 | beam-bracings | 2046DF44LPL112 | DF4-112 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3835 | beam-bracings | 2046DF44LPL113 | DF4-113 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3836 | beam-bracings | 2046DF44LPL114 | DF4-114 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3837 | beam-bracings | 2046DF44LPL115 | DF4-115 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3838 | beam-bracings | 2046DF44LPL116 | DF4-116 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3839 | beam-bracings | 2046DF44LPL117 | DF4-117 | PL10*330 | 1 | 10.62 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3840 | beam-bracings | 2046DF44LPL169 | DF4-169 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3841 | beam-bracings | 2046DF44LPL170 | DF4-170 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3842 | beam-bracings | 2046DF44LPL171 | DF4-171 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3843 | beam-bracings | 2046DF44LPL172 | DF4-172 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3844 | beam-bracings | 2046DF44LPL173 | DF4-173 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3845 | beam-bracings | 2046DF44LPL174 | DF4-174 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3846 | beam-bracings | 2046DF44LPL175 | DF4-175 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3847 | beam-bracings | 2046DF44LPL176 | DF4-176 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3848 | beam-bracings | 2046DF44LPL177 | DF4-177 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3849 | beam-bracings | 2046DF44LPL178 | DF4-178 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3850 | beam-bracings | 2046DF44LPL179 | DF4-179 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3851 | beam-bracings | 2046DF44LPL180 | DF4-180 | PL10*170 | 1 | 4.40 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3852 | beam-bracings | 2046DF44LPL205 | DF4-205 | PL10*170 | 1 | 4.67 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3853 | beam-bracings | 2046DF44LPL206 | DF4-206 | PL10*170 | 1 | 4.67 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3854 | beam-bracings | 2046DF44LPL207 | DF4-207 | PL10*170 | 1 | 4.67 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3855 | beam-bracings | 2046DF44LPL208 | DF4-208 | PL10*170 | 1 | 4.67 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 09/01/2015 | 21 |
| 3856 | beam-bracings | 2046DF44TR118 | DF4-118 | SHS300*10 | 1 | 2316.23 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 10/04/2015 | 66 |
| 3857 | beam-bracings | 2046DF44V100 | DF4-100 | HEB500 | 1 | 885.08 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 10/10/2014 | 04/02/2015 | 31 |
| 3858 | beam-bracings | 2046AF54B122 | AF5-122 | SHS300*10 | 1 | 774.13 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 22/05/2015 | 89 |
| 3859 | beam-bracings | 2046AF54B159 | AF5-159 | SHS300*10 | 1 | 784.78 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3860 | beam-bracings | 2046AF54B160 | AF5-160 | SHS300*10 | 1 | 768.88 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |
| 3861 | beam-bracings | 2046AF54BR123 | AF5-123 | CHS168.3*10.0 | 1 | 251.41 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 12/06/2015 | 105 |
| 3862 | beam-bracings | 2046AF54BR124 | AF5-124 | CHS168.3*10.0 | 1 | 251.41 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 12/06/2015 | 105 |
| 3863 | beam-bracings | 2046AF54BR125 | AF5-125 | CHS168.3*10.0 | 1 | 237.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |
| 3864 | beam-bracings | 2046AF54BR126 | AF5-126 | CHS168.3*10.0 | 1 | 237.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |
| 3865 | beam-bracings | 2046AF54BR156 | AF5-156 | CHS323.9*6.3 | 1 | 271.78 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |
| 3866 | beam-bracings | 2046AF54BR157 | AF5-157 | CHS323.9*6.3 | 1 | 641.85 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |
| 3867 | beam-bracings | 2046AF54BR158 | AF5-158 | CHS323.9*6.3 | 1 | 271.78 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 12/06/2015 | 105 |
| 3868 | beam-bracings | 2046AF54BR177 | AF5-177 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |
| 3869 | beam-bracings | 2046AF54BR178 | AF5-178 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 12/06/2015 | 105 |
| 3870 | beam-bracings | 2046AF54BR179 | AF5-179 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 20/05/2015 | 87 |

Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3871 | beam-bracings | 2046AF54BR180 | AF5-180 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 12/06/2015 | 105 |
| 3872 | beam-bracings | 2046AF54LPL127 | AF5-127 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3873 | beam-bracings | 2046AF54LPL128 | AF5-128 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3874 | beam-bracings | 2046AF54LPL129 | AF5-129 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3875 | beam-bracings | 2046AF54LPL130 | AF5-130 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3876 | beam-bracings | 2046AF54LPL131 | AF5-131 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3877 | beam-bracings | 2046AF54LPL132 | AF5-132 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3878 | beam-bracings | 2046AF54LPL133 | AF5-133 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3879 | beam-bracings | 2046AF54LPL134 | AF5-134 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3880 | beam-bracings | 2046AF54LPL135 | AF5-135 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3881 | beam-bracings | 2046AF54LPL136 | AF5-136 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3882 | beam-bracings | 2046AF54LPL137 | AF5-137 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3883 | beam-bracings | 2046AF54LPL138 | AF5-138 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3884 | beam-bracings | 2046AF54LPL139 | AF5-139 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3885 | beam-bracings | 2046AF54LPL140 | AF5-140 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3886 | beam-bracings | 2046AF54LPL141 | AF5-141 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3887 | beam-bracings | 2046AF54LPL142 | AF5-142 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3888 | beam-bracings | 2046AF54LPL143 | AF5-143 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3889 | beam-bracings | 2046AF54LPL144 | AF5-144 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3890 | beam-bracings | 2046AF54LPL145 | AF5-145 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3891 | beam-bracings | 2046AF54LPL146 | AF5-146 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3892 | beam-bracings | 2046AF54LPL147 | AF5-147 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3893 | beam-bracings | 2046AF54LPL148 | AF5-148 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3894 | beam-bracings | 2046AF54LPL149 | AF5-149 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3895 | beam-bracings | 2046AF54LPL150 | AF5-150 | PL10*250 | 1 | 8.44 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3896 | beam-bracings | 2046AF54LPL152 | AF5-152 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3897 | beam-bracings | 2046AF54LPL153 | AF5-153 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3898 | beam-bracings | 2046AF54LPL154 | AF5-154 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3899 | beam-bracings | 2046AF54LPL155 | AF5-155 | PL10*330 | 1 | 10.62 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 06/05/2015 | 79 |
| 3900 | beam-bracings | 2046AF54LPL165 | AF5-165 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3901 | beam-bracings | 2046AF54LPL166 | AF5-166 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3902 | beam-bracings | 2046AF54LPL167 | AF5-167 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3903 | beam-bracings | 2046AF54LPL168 | AF5-168 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3904 | beam-bracings | 2046AF54LPL169 | AF5-169 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3905 | beam-bracings | 2046AF54LPL170 | AF5-170 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3906 | beam-bracings | 2046AF54LPL171 | AF5-171 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3907 | beam-bracings | 2046AF54LPL172 | AF5-172 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3908 | beam-bracings | 2046AF54LPL173 | AF5-173 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3909 | beam-bracings | 2046AF54LPL174 | AF5-174 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3910 | beam-bracings | 2046AF54LPL175 | AF5-175 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3911 | beam-bracings | 2046AF54LPL176 | AF5-176 | PL15*350 | 1 | 16.90 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 27/04/2015 | 74 |
| 3912 | beam-bracings | 2046AF54LPL191 | AF5-191 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3913 | beam-bracings | 2046AF54LPL192 | AF5-192 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3914 | beam-bracings | 2046AF54LPL193 | AF5-193 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3915 | beam-bracings | 2046AF54LPL194 | AF5-194 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3916 | beam-bracings | 2046AF54LPL195 | AF5-195 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3917 | beam-bracings | 2046AF54LPL196 | AF5-196 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3918 | beam-bracings | 2046AF54LPL197 | AF5-197 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3919 | beam-bracings | 2046AF54LPL198 | AF5-198 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3920 | beam-bracings | 2046AF54LPL199 | AF5-199 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3921 | beam-bracings | 2046AF54LPL200 | AF5-200 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3922 | beam-bracings | 2046AF54LPL201 | AF5-201 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3923 | beam-bracings | 2046AF54LPL202 | AF5-202 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3924 | beam-bracings | 2046AF54LPL203 | AF5-203 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3925 | beam-bracings | 2046AF54LPL204 | AF5-204 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3926 | beam-bracings | 2046AF54LPL205 | AF5-205 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3927 | beam-bracings | 2046AF54LPL206 | AF5-206 | PL10*200 | 1 | 5.18 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 13/05/2015 | 84 |
| 3928 | beam-bracings | 2046AF54TR151 | AF5-151 | RHS300*100*10 | 1 | 1704.91 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 11/11/2014 | 11/06/2015 | 106 |
| 3929 | beam-bracings | 2046BF54B77 | BF5-77 | SHS300*10 | 1 | 774.13 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3930 | beam-bracings | 2046BF54B106 | BF5-106 | SHS300*10 | 1 | 785.92 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3931 | beam-bracings | 2046BF54B107 | BF5-107 | SHS300*10 | 1 | 775.07 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3932 | beam-bracings | 2046BF54BR78 | BF5-78 | CHS168.3*10.0 | 1 | 251.41 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 3933 | beam-bracings | 2046BF54BR79 | BF5-79 | CHS168.3*10.0 | 1 | 251.41 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3934 | beam-bracings | 2046BF54BR80 | BF5-80 | CHS168.3*10.0 | 1 | 237.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 3935 | beam-bracings | 2046BF54BR81 | BF5-81 | CHS168.3*10.0 | 1 | 237.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 3936 | beam-bracings | 2046BF54BR103 | BF5-103 | CHS323.9*6.3 | 1 | 271.78 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3937 | beam-bracings | 2046BF54BR104 | BF5-104 | CHS323.9*6.3 | 1 | 271.78 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 3938 | beam-bracings | 2046BF54BR105 | BF5-105 | CHS323.9*6.3 | 1 | 641.85 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3939 | beam-bracings | 2046BF54LPL82 | BF5-82 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3940 | beam-bracings | 2046BF54LPL83 | BF5-83 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3941 | beam-bracings | 2046BF54LPL84 | BF5-84 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3942 | beam-bracings | 2046BF54LPL85 | BF5-85 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3943 | beam-bracings | 2046BF54LPL86 | BF5-86 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3944 | beam-bracings | 2046BF54LPL87 | BF5-87 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3945 | beam-bracings | 2046BF54LPL88 | BF5-88 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3946 | beam-bracings | 2046BF54LPL89 | BF5-89 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3947 | beam-bracings | 2046BF54LPL90 | BF5-90 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3948 | beam-bracings | 2046BF54LPL91 | BF5-91 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3949 | beam-bracings | 2046BF54LPL92 | BF5-92 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3950 | beam-bracings | 2046BF54LPL93 | BF5-93 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3951 | beam-bracings | 2046BF54LPL94 | BF5-94 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3952 | beam-bracings | 2046BF54LPL95 | BF5-95 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3953 | beam-bracings | 2046BF54LPL96 | BF5-96 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3954 | beam-bracings | 2046BF54LPL97 | BF5-97 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3955 | beam-bracings | 2046BF54LPL99 | BF5-99 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3956 | beam-bracings | 2046BF54LPL100 | BF5-100 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3957 | beam-bracings | 2046BF54LPL101 | BF5-101 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3958 | beam-bracings | 2046BF54LPL102 | BF5-102 | PL10*330 | 1 | 10.62 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3959 | beam-bracings | 2046BF54LPL110 | BF5-110 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3960 | beam-bracings | 2046BF54LPL111 | BF5-111 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3961 | beam-bracings | 2046BF54LPL112 | BF5-112 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3962 | beam-bracings | 2046BF54LPL113 | BF5-113 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3963 | beam-bracings | 2046BF54LPL114 | BF5-114 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3964 | beam-bracings | 2046BF54LPL115 | BF5-115 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3965 | beam-bracings | 2046BF54LPL116 | BF5-116 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3966 | beam-bracings | 2046BF54LPL117 | BF5-117 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3967 | beam-bracings | 2046BF54LPL118 | BF5-118 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3968 | beam-bracings | 2046BF54LPL119 | BF5-119 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3969 | beam-bracings | 2046BF54LPL120 | BF5-120 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3970 | beam-bracings | 2046BF54LPL121 | BF5-121 | PL15*350 | 1 | 16.90 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 3971 | beam-bracings | 2046BF54LPL127 | BF5-127 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3972 | beam-bracings | 2046BF54LPL128 | BF5-128 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3973 | beam-bracings | 2046BF54LPL129 | BF5-129 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3974 | beam-bracings | 2046BF54LPL130 | BF5-130 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3975 | beam-bracings | 2046BF54LPL131 | BF5-131 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3976 | beam-bracings | 2046BF54LPL132 | BF5-132 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3977 | beam-bracings | 2046BF54LPL133 | BF5-133 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3978 | beam-bracings | 2046BF54LPL134 | BF5-134 | PL10*200 | 1 | 5.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3979 | beam-bracings | 2046BF54TR98 | BF5-98 | RHS300*100*10 | 1 | 1704.91 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 18/06/2015 | 111 |
| 3980 | beam-bracings | 2046CF54B77 | CF5-77 | SHS300*10 | 1 | 774.13 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3981 | beam-bracings | 2046CF54B106 | CF5-106 | SHS300*10 | 1 | 782.26 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3982 | beam-bracings | 2046CF54B107 | CF5-107 | SHS300*10 | 1 | 764.32 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 3983 | beam-bracings | 2046CF54BR78 | CF5-78 | CHS168.3*10.0 | 1 | 251.41 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3984 | beam-bracings | 2046CF54BR79 | CF5-79 | CHS168.3*10.0 | 1 | 251.41 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3985 | beam-bracings | 2046CF54BR80 | CF5-80 | CHS168.3*10.0 | 1 | 237.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3986 | beam-bracings | 2046CF54BR81 | CF5-81 | CHS168.3*10.0 | 1 | 237.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3987 | beam-bracings | 2046CF54BR103 | CF5-103 | CHS323.9*6.3 | 1 | 271.78 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 3988 | beam-bracings | 2046CF54BR104 | CF5-104 | CHS323.9*6.3 | 1 | 271.78 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 3989 | beam-bracings | 2046CF54BR105 | CF5-105 | CHS323.9*6.3 | 1 | 641.85 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 3990 | beam-bracings | 2046CF54LPL82 | CF5-82 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 01/08/2015 | 166 |
| 3991 | beam-bracings | 2046CF54LPL83 | CF5-83 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 01/08/2015 | 166 |
| 3992 | beam-bracings | 2046CF54LPL84 | CF5-84 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3993 | beam-bracings | 2046CF54LPL85 | CF5-85 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3994 | beam-bracings | 2046CF54LPL86 | CF5-86 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3995 | beam-bracings | 2046CF54LPL87 | CF5-87 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3996 | beam-bracings | 2046CF54LPL88 | CF5-88 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3997 | beam-bracings | 2046CF54LPL89 | CF5-89 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 3998 | beam-bracings | 2046CF54LPL90 | CF5-90 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 01/08/2015 | 166 |
| 3999 | beam-bracings | 2046CF54LPL91 | CF5-91 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 01/08/2015 | 166 |
| 4000 | beam-bracings | 2046CF54LPL92 | CF5-92 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4001 | beam-bracings | 2046CF54LPL93 | CF5-93 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4002 | beam-bracings | 2046CF54LPL94 | CF5-94 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4003 | beam-bracings | 2046CF54LPL95 | CF5-95 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4004 | beam-bracings | 2046CF54LPL96 | CF5-96 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4005 | beam-bracings | 2046CF54LPL97 | CF5-97 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4006 | beam-bracings | 2046CF54LPL99 | CF5-99 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4007 | beam-bracings | 2046CF54LPL100 | CF5-100 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4008 | beam-bracings | 2046CF54LPL101 | CF5-101 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4009 | beam-bracings | 2046CF54LPL102 | CF5-102 | PL10*330 | 1 | 10.62 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4010 | beam-bracings | 2046CF54LPL110 | CF5-110 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4011 | beam-bracings | 2046CF54LPL111 | CF5-111 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4012 | beam-bracings | 2046CF54LPL112 | CF5-112 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4013 | beam-bracings | 2046CF54LPL113 | CF5-113 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4014 | beam-bracings | 2046CF54LPL114 | CF5-114 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4015 | beam-bracings | 2046CF54LPL115 | CF5-115 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4016 | beam-bracings | 2046CF54LPL116 | CF5-116 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4017 | beam-bracings | 2046CF54LPL117 | CF5-117 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4018 | beam-bracings | 2046CF54LPL118 | CF5-118 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4019 | beam-bracings | 2046CF54LPL119 | CF5-119 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4020 | beam-bracings | 2046CF54LPL120 | CF5-120 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4021 | beam-bracings | 2046CF54LPL121 | CF5-121 | PL15*350 | 1 | 16.90 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/04/2015 | 74 |
| 4022 | beam-bracings | 2046CF54LPL127 | CF5-127 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4023 | beam-bracings | 2046CF54LPL128 | CF5-128 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4024 | beam-bracings | 2046CF54LPL129 | CF5-129 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4025 | beam-bracings | 2046CF54LPL130 | CF5-130 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4026 | beam-bracings | 2046CF54LPL131 | CF5-131 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4027 | beam-bracings | 2046CF54LPL132 | CF5-132 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4028 | beam-bracings | 2046CF54LPL133 | CF5-133 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4029 | beam-bracings | 2046CF54LPL134 | CF5-134 | PL10*200 | 1 | 5.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4030 | beam-bracings | 2046CF54TR98 | CF5-98 | RHS300*100*10 | 1 | 1704.91 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 4031 | beam-bracings | 2046DF54B62 | DF5-62 | SHS300*10 | 1 | 774.13 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 4032 | beam-bracings | 2046DF54B88 | DF5-88 | SHS300*10 | 1 | 782.26 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 4033 | beam-bracings | 2046DF54B89 | DF5-89 | SHS300*10 | 1 | 782.09 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 13/05/2015 | 84 |
| 4034 | beam-bracings | 2046DF54BR63 | DF5-63 | CHS168.3*10.0 | 1 | 251.41 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 4035 | beam-bracings | 2046DF54BR64 | DF5-64 | CHS168.3*10.0 | 1 | 251.41 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 4036 | beam-bracings | 2046DF54BR65 | DF5-65 | CHS168.3*10.0 | 1 | 237.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 20/05/2015 | 87 |
| 4037 | beam-bracings | 2046DF54BR66 | DF5-66 | CHS168.3*10.0 | 1 | 237.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 12/06/2015 | 105 |
| 4038 | beam-bracings | 2046DF54LPL67 | DF5-67 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4039 | beam-bracings | 2046DF54LPL68 | DF5-68 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4040 | beam-bracings | 2046DF54LPL69 | DF5-69 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4041 | beam-bracings | 2046DF54LPL70 | DF5-70 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 27/03/2015 | 59 |
| 4042 | beam-bracings | 2046DF54LPL71 | DF5-71 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4043 | beam-bracings | 2046DF54LPL72 | DF5-72 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4044 | beam-bracings | 2046DF54LPL73 | DF5-73 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4045 | beam-bracings | 2046DF54LPL74 | DF5-74 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4046 | beam-bracings | 2046DF54LPL75 | DF5-75 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4047 | beam-bracings | 2046DF54LPL76 | DF5-76 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4048 | beam-bracings | 2046DF54LPL77 | DF5-77 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4049 | beam-bracings | 2046DF54LPL78 | DF5-78 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4050 | beam-bracings | 2046DF54LPL79 | DF5-79 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4051 | beam-bracings | 2046DF54LPL80 | DF5-80 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4052 | beam-bracings | 2046DF54LPL81 | DF5-81 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4053 | beam-bracings | 2046DF54LPL82 | DF5-82 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4054 | beam-bracings | 2046DF54LPL84 | DF5-84 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4055 | beam-bracings | 2046DF54LPL85 | DF5-85 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4056 | beam-bracings | 2046DF54LPL86 | DF5-86 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4057 | beam-bracings | 2046DF54LPL87 | DF5-87 | PL10*330 | 1 | 10.62 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4058 | beam-bracings | 2046DF54LPL97 | DF5-97 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4059 | beam-bracings | 2046DF54LPL98 | DF5-98 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4060 | beam-bracings | 2046DF54LPL99 | DF5-99 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4061 | beam-bracings | 2046DF54LPL100 | DF5-100 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4062 | beam-bracings | 2046DF54LPL101 | DF5-101 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4063 | beam-bracings | 2046DF54LPL102 | DF5-102 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4064 | beam-bracings | 2046DF54LPL103 | DF5-103 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4065 | beam-bracings | 2046DF54LPL104 | DF5-104 | PL10*200 | 1 | 5.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 06/05/2015 | 79 |
| 4066 | beam-bracings | 2046DF54TR83 | DF5-83 | RHS300*100*10 | 1 | 1195.95 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 09/12/2014 | 11/06/2015 | 106 |
| 4067 | beam-bracings | 2046ZO14LPL177 | ZO1-177 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4068 | beam-bracings | 2046ZO14LPL178 | ZO1-178 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4069 | beam-bracings | 2046ZO14LPL179 | ZO1-179 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4070 | beam-bracings | 2046ZO14LPL180 | ZO1-180 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4071 | beam-bracings | 2046ZO14LPL181 | ZO1-181 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4072 | beam-bracings | 2046ZO14LPL182 | ZO1-182 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4073 | beam-bracings | 2046ZO14LPL183 | ZO1-183 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4074 | beam-bracings | 2046ZO14LPL184 | ZO1-184 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4075 | beam-bracings | 2046ZO14LPL185 | ZO1-185 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4076 | beam-bracings | 2046ZO14LPL186 | ZO1-186 | PL10*310 | 1 | 9.98 | Z | 1 | 13.3-13.4 | Without Intumescent | Portugal | 21/10/2014 | 17/08/2015 | 166 |
| 4077 | beam-bracings | 2046FF24B86 | FF2-86 | SHS300*10 | 1 | 742.14 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 25/03/2015 | 56 |
| 4078 | beam-bracings | 2046FF24B87 | FF2-87 | SHS300*10 | 1 | 751.61 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 25/03/2015 | 56 |
| 4079 | beam-bracings | 2046FF24B88 | FF2-88 | HEB300 | 1 | 313.89 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 17/04/2015 | 70 |
| 4080 | beam-bracings | 2046FF24BR83 | FF2-83 | CHS355.6*10.0 | 1 | 518.10 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4081 | beam-bracings | 2046FF24BR84 | FF2-84 | CHS323.9*6.3 | 1 | 282.02 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4082 | beam-bracings | 2046FF24BR85 | FF2-85 | CHS323.9*6.3 | 1 | 232.23 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4083 | beam-bracings | 2046FF24LPL63 | FF2-63 | PL20*390 | 1 | 36.13 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4084 | beam-bracings | 2046FF24LPL64 | FF2-64 | PL20*390 | 1 | 36.13 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4085 | beam-bracings | 2046FF24LPL65 | FF2-65 | PL20*390 | 1 | 36.13 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4086 | beam-bracings | 2046FF24LPL66 | FF2-66 | PL20*390 | 1 | 36.13 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4087 | beam-bracings | 2046FF24LPL67 | FF2-67 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4088 | beam-bracings | 2046FF24LPL68 | FF2-68 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4089 | beam-bracings | 2046FF24LPL69 | FF2-69 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4090 | beam-bracings | 2046FF24LPL70 | FF2-70 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4091 | beam-bracings | 2046FF24LPL71 | FF2-71 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4092 | beam-bracings | 2046FF24LPL72 | FF2-72 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4093 | beam-bracings | 2046FF24LPL73 | FF2-73 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4094 | beam-bracings | 2046FF24LPL74 | FF2-74 | PL15*350 | 1 | 16.90 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4095 | beam-bracings | 2046FF24LPL75 | FF2-75 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4096 | beam-bracings | 2046FF24LPL76 | FF2-76 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4097 | beam-bracings | 2046FF24LPL77 | FF2-77 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4098 | beam-bracings | 2046FF24LPL78 | FF2-78 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4099 | beam-bracings | 2046FF24LPL79 | FF2-79 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4100 | beam-bracings | 2046FF24LPL80 | FF2-80 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4101 | beam-bracings | 2046FF24LPL81 | FF2-81 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4102 | beam-bracings | 2046FF24LPL82 | FF2-82 | PL10*330 | 1 | 10.62 | F | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4103 | beam-bracings | 2046GF24B86 | GF2-86 | SHS300*10 | 1 | 742.14 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 52 |
| 4104 | beam-bracings | 2046GF24B87 | GF2-87 | SHS300*10 | 1 | 751.61 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/03/2015 | 54 |
| 4105 | beam-bracings | 2046GF24B88 | GF2-88 | HEB300 | 1 | 313.89 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4106 | beam-bracings | 2046GF24BR83 | GF2-83 | CHS355.6*10.0 | 1 | 518.10 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4107 | beam-bracings | 2046GF24BR84 | GF2-84 | CHS323.9*6.3 | 1 | 282.02 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4108 | beam-bracings | 2046GF24BR85 | GF2-85 | CHS323.9*6.3 | 1 | 232.23 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4109 | beam-bracings | 2046GF24LPL63 | GF2-63 | PL20*390 | 1 | 36.13 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4110 | beam-bracings | 2046GF24LPL64 | GF2-64 | PL20*390 | 1 | 36.13 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4111 | beam-bracings | 2046GF24LPL65 | GF2-65 | PL20*390 | 1 | 36.13 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4112 | beam-bracings | 2046GF24LPL66 | GF2-66 | PL20*390 | 1 | 36.13 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 27/07/2015 | 155 |
| 4113 | beam-bracings | 2046GF24LPL67 | GF2-67 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4114 | beam-bracings | 2046GF24LPL68 | GF2-68 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4115 | beam-bracings | 2046GF24LPL69 | GF2-69 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4116 | beam-bracings | 2046GF24LPL70 | GF2-70 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4117 | beam-bracings | 2046GF24LPL71 | GF2-71 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4118 | beam-bracings | 2046GF24LPL72 | GF2-72 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4119 | beam-bracings | 2046GF24LPL73 | GF2-73 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4120 | beam-bracings | 2046GF24LPL74 | GF2-74 | PL15*350 | 1 | 16.90 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4121 | beam-bracings | 2046GF24LPL75 | GF2-75 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4122 | beam-bracings | 2046GF24LPL76 | GF2-76 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4123 | beam-bracings | 2046GF24LPL77 | GF2-77 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4124 | beam-bracings | 2046GF24LPL78 | GF2-78 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4125 | beam-bracings | 2046GF24LPL79 | GF2-79 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4126 | beam-bracings | 2046GF24LPL80 | GF2-80 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4127 | beam-bracings | 2046GF24LPL81 | GF2-81 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4128 | beam-bracings | 2046GF24LPL82 | GF2-82 | PL10*330 | 1 | 10.62 | G | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |

Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4129 | beam-bracings | 2046HF24B86 | HF2-86 | SHS300*10 | 1 | 742.14 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/03/2015 | 54 |
| 4130 | beam-bracings | 2046HF24B87 | HF2-87 | SHS300*10 | 1 | 751.61 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 52 |
| 4131 | beam-bracings | 2046HF24B88 | HF2-88 | HEB300 | 1 | 313.89 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 17/04/2015 | 71 |
| 4132 | beam-bracings | 2046HF24BR83 | HF2-83 | CHS355.6*10.0 | 1 | 518.10 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4133 | beam-bracings | 2046HF24BR84 | HF2-84 | CHS323.9*6.3 | 1 | 282.02 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4134 | beam-bracings | 2046HF24BR85 | HF2-85 | CHS323.9*6.3 | 1 | 232.23 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4135 | beam-bracings | 2046HF24LPL63 | HF2-63 | PL20*390 | 1 | 36.13 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4136 | beam-bracings | 2046HF24LPL64 | HF2-64 | PL20*390 | 1 | 36.13 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4137 | beam-bracings | 2046HF24LPL65 | HF2-65 | PL20*390 | 1 | 36.13 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4138 | beam-bracings | 2046HF24LPL66 | HF2-66 | PL20*390 | 1 | 36.13 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4139 | beam-bracings | 2046HF24LPL67 | HF2-67 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4140 | beam-bracings | 2046HF24LPL68 | HF2-68 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4141 | beam-bracings | 2046HF24LPL69 | HF2-69 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4142 | beam-bracings | 2046HF24LPL70 | HF2-70 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4143 | beam-bracings | 2046HF24LPL71 | HF2-71 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4144 | beam-bracings | 2046HF24LPL72 | HF2-72 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4145 | beam-bracings | 2046HF24LPL73 | HF2-73 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4146 | beam-bracings | 2046HF24LPL74 | HF2-74 | PL15*350 | 1 | 16.90 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4147 | beam-bracings | 2046HF24LPL75 | HF2-75 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4148 | beam-bracings | 2046HF24LPL76 | HF2-76 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4149 | beam-bracings | 2046HF24LPL77 | HF2-77 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4150 | beam-bracings | 2046HF24LPL78 | HF2-78 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4151 | beam-bracings | 2046HF24LPL79 | HF2-79 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4152 | beam-bracings | 2046HF24LPL80 | HF2-80 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4153 | beam-bracings | 2046HF24LPL81 | HF2-81 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4154 | beam-bracings | 2046HF24LPL82 | HF2-82 | PL10*330 | 1 | 10.62 | H | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4155 | beam-bracings | 2046IF24B86 | IF2-86 | SHS300*10 | 1 | 742.14 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 52 |
| 4156 | beam-bracings | 2046IF24B87 | IF2-87 | SHS300*10 | 1 | 751.61 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/03/2015 | 54 |
| 4157 | beam-bracings | 2046IF24B88 | IF2-88 | HEB300 | 1 | 313.89 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 17/04/2015 | 71 |
| 4158 | beam-bracings | 2046IF24BR83 | IF2-83 | CHS355.6*10.0 | 1 | 518.10 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4159 | beam-bracings | 2046IF24BR84 | IF2-84 | CHS323.9*6.3 | 1 | 282.02 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4160 | beam-bracings | 2046IF24BR85 | IF2-85 | CHS323.9*6.3 | 1 | 232.23 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4161 | beam-bracings | 2046IF24LPL63 | IF2-63 | PL20*390 | 1 | 36.13 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4162 | beam-bracings | 2046IF24LPL64 | IF2-64 | PL20*390 | 1 | 36.13 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4163 | beam-bracings | 2046IF24LPL65 | IF2-65 | PL20*390 | 1 | 36.13 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4164 | beam-bracings | 2046IF24LPL66 | IF2-66 | PL20*390 | 1 | 36.13 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4165 | beam-bracings | 2046IF24LPL67 | IF2-67 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4166 | beam-bracings | 2046IF24LPL68 | IF2-68 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4167 | beam-bracings | 2046IF24LPL69 | IF2-69 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4168 | beam-bracings | 2046IF24LPL70 | IF2-70 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4169 | beam-bracings | 2046IF24LPL71 | IF2-71 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4170 | beam-bracings | 2046IF24LPL72 | IF2-72 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4171 | beam-bracings | 2046IF24LPL73 | IF2-73 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4172 | beam-bracings | 2046IF24LPL74 | IF2-74 | PL15*350 | 1 | 16.90 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4173 | beam-bracings | 2046IF24LPL75 | IF2-75 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4174 | beam-bracings | 2046IF24LPL76 | IF2-76 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4175 | beam-bracings | 2046IF24LPL77 | IF2-77 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4176 | beam-bracings | 2046IF24LPL78 | IF2-78 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4177 | beam-bracings | 2046IF24LPL79 | IF2-79 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4178 | beam-bracings | 2046IF24LPL80 | IF2-80 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4179 | beam-bracings | 2046IF24LPL81 | IF2-81 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 27/07/2015 | 155 |
| 4180 | beam-bracings | 2046IF24LPL82 | IF2-82 | PL10*330 | 1 | 10.62 | I | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4181 | beam-bracings | 2046JF24B86 | JF2-86 | SHS300*10 | 1 | 742.14 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 52 |
| 4182 | beam-bracings | 2046JF24B87 | JF2-87 | SHS300*10 | 1 | 751.61 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 52 |
| 4183 | beam-bracings | 2046JF24B88 | JF2-88 | HEB300 | 1 | 313.89 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 17/04/2015 | 71 |
| 4184 | beam-bracings | 2046JF24BR83 | JF2-83 | CHS355.6*10.0 | 1 | 518.10 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4185 | beam-bracings | 2046JF24BR84 | JF2-84 | CHS323.9*6.3 | 1 | 232.23 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4186 | beam-bracings | 2046JF24BR85 | JF2-85 | CHS323.9*6.3 | 1 | 282.02 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4187 | beam-bracings | 2046JF24LPL63 | JF2-63 | PL20*390 | 1 | 36.13 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4188 | beam-bracings | 2046JF24LPL64 | JF2-64 | PL20*390 | 1 | 36.13 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4189 | beam-bracings | 2046JF24LPL65 | JF2-65 | PL20*390 | 1 | 36.13 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4190 | beam-bracings | 2046JF24LPL66 | JF2-66 | PL20*390 | 1 | 36.13 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 09/04/2015 | 64 |
| 4191 | beam-bracings | 2046JF24LPL67 | JF2-67 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4192 | beam-bracings | 2046JF24LPL68 | JF2-68 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4193 | beam-bracings | 2046JF24LPL69 | JF2-69 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 27/07/2015 | 155 |
| 4194 | beam-bracings | 2046JF24LPL70 | JF2-70 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4195 | beam-bracings | 2046JF24LPL71 | JF2-71 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4196 | beam-bracings | 2046JF24LPL72 | JF2-72 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4197 | beam-bracings | 2046JF24LPL73 | JF2-73 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4198 | beam-bracings | 2046JF24LPL74 | JF2-74 | PL15*350 | 1 | 16.90 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4199 | beam-bracings | 2046JF24LPL75 | JF2-75 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4200 | beam-bracings | 2046JF24LPL76 | JF2-76 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4201 | beam-bracings | 2046JF24LPL77 | JF2-77 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4202 | beam-bracings | 2046JF24LPL78 | JF2-78 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4203 | beam-bracings | 2046JF24LPL79 | JF2-79 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4204 | beam-bracings | 2046JF24LPL80 | JF2-80 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4205 | beam-bracings | 2046JF24LPL81 | JF2-81 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4206 | beam-bracings | 2046JF24LPL82 | JF2-82 | PL10*330 | 1 | 10.62 | J | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4207 | beam-bracings | 2046EF24B86 | EF2-86 | SHS300*10 | 1 | 742.14 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 25/03/2015 | 56 |
| 4208 | beam-bracings | 2046EF24B87 | EF2-87 | SHS300*10 | 1 | 751.61 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 18/03/2015 | 53 |
| 4209 | beam-bracings | 2046EF24B88 | EF2-88 | HEB300 | 1 | 313.89 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 17/04/2015 | 70 |
| 4210 | beam-bracings | 2046EF24BR83 | EF2-83 | CHS355.6*10.0 | 1 | 518.10 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4211 | beam-bracings | 2046EF24BR84 | EF2-84 | CHS323.9*6.3 | 1 | 282.02 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4212 | beam-bracings | 2046EF24BR85 | EF2-85 | CHS323.9*6.3 | 1 | 232.23 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 20/04/2015 | 73 |
| 4213 | beam-bracings | 2046EF24LPL63 | EF2-63 | PL20*390 | 1 | 36.13 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4214 | beam-bracings | 2046EF24LPL64 | EF2-64 | PL20*390 | 1 | 36.13 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4215 | beam-bracings | 2046EF24LPL65 | EF2-65 | PL20*390 | 1 | 36.13 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4216 | beam-bracings | 2046EF24LPL66 | EF2-66 | PL20*390 | 1 | 36.13 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4217 | beam-bracings | 2046EF24LPL67 | EF2-67 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4218 | beam-bracings | 2046EF24LPL68 | EF2-68 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4219 | beam-bracings | 2046EF24LPL69 | EF2-69 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4220 | beam-bracings | 2046EF24LPL70 | EF2-70 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4221 | beam-bracings | 2046EF24LPL71 | EF2-71 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4222 | beam-bracings | 2046EF24LPL72 | EF2-72 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4223 | beam-bracings | 2046EF24LPL73 | EF2-73 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4224 | beam-bracings | 2046EF24LPL74 | EF2-74 | PL15*350 | 1 | 16.90 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 04/03/2015 | 46 |
| 4225 | beam-bracings | 2046EF24LPL75 | EF2-75 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4226 | beam-bracings | 2046EF24LPL76 | EF2-76 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4227 | beam-bracings | 2046EF24LPL77 | EF2-77 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4228 | beam-bracings | 2046EF24LPL78 | EF2-78 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4229 | beam-bracings | 2046EF24LPL79 | EF2-79 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4230 | beam-bracings | 2046EF24LPL80 | EF2-80 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4231 | beam-bracings | 2046EF24LPL81 | EF2-81 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4232 | beam-bracings | 2046EF24LPL82 | EF2-82 | PL10*330 | 1 | 10.62 | E | 2 | 13.1-13.2 | Without Intumescent | Portugal | 21/01/2015 | 13/03/2015 | 50 |
| 4233 | beam-bracings | 2046EF34B86 | EF3-86 | HEB400 | 1 | 435.01 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4234 | beam-bracings | 2046EF34B106 | EF3-106 | SHS300*10 | 1 | 742.14 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4235 | beam-bracings | 2046EF34B107 | EF3-107 | SHS300*10 | 1 | 742.14 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4236 | beam-bracings | 2046EF34B108 | EF3-108 | SHS300*10 | 1 | 751.61 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4237 | beam-bracings | 2046EF34B109 | EF3-109 | SHS300*10 | 1 | 751.61 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4238 | beam-bracings | 2046EF34B110 | EF3-110 | HEB300 | 1 | 318.84 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 15/06/2015 | 109 |
| 4239 | beam-bracings | 2046EF34BR103 | EF3-103 | CHS355.6*10.0 | 1 | 564.50 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4240 | beam-bracings | 2046EF34BR104 | EF3-104 | CHS323.9*6.3 | 1 | 234.85 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4241 | beam-bracings | 2046EF34BR105 | EF3-105 | CHS323.9*6.3 | 1 | 234.85 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4242 | beam-bracings | 2046EF34LPL74 | EF3-74 | PL20*390 | 1 | 47.15 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4243 | beam-bracings | 2046EF34LPL75 | EF3-75 | PL20*390 | 1 | 47.15 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4244 | beam-bracings | 2046EF34LPL76 | EF3-76 | PL20*390 | 1 | 47.15 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4245 | beam-bracings | 2046EF34LPL77 | EF3-77 | PL20*390 | 1 | 47.15 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4246 | beam-bracings | 2046EF34LPL78 | EF3-78 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4247 | beam-bracings | 2046EF34LPL79 | EF3-79 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4248 | beam-bracings | 2046EF34LPL80 | EF3-80 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4249 | beam-bracings | 2046EF34LPL81 | EF3-81 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4250 | beam-bracings | 2046EF34LPL82 | EF3-82 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4251 | beam-bracings | 2046EF34LPL83 | EF3-83 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4252 | beam-bracings | 2046EF34LPL84 | EF3-84 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4253 | beam-bracings | 2046EF34LPL85 | EF3-85 | PL15*350 | 1 | 16.90 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4254 | beam-bracings | 2046EF34LPL87 | EF3-87 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4255 | beam-bracings | 2046EF34LPL88 | EF3-88 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4256 | beam-bracings | 2046EF34LPL89 | EF3-89 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4257 | beam-bracings | 2046EF34LPL90 | EF3-90 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4258 | beam-bracings | 2046EF34LPL91 | EF3-91 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4259 | beam-bracings | 2046EF34LPL92 | EF3-92 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4260 | beam-bracings | 2046EF34LPL93 | EF3-93 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4261 | beam-bracings | 2046EF34LPL94 | EF3-94 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4262 | beam-bracings | 2046EF34LPL95 | EF3-95 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4263 | beam-bracings | 2046EF34LPL96 | EF3-96 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4264 | beam-bracings | 2046EF34LPL97 | EF3-97 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4265 | beam-bracings | 2046EF34LPL98 | EF3-98 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4266 | beam-bracings | 2046EF34LPL99 | EF3-99 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4267 | beam-bracings | 2046EF34LPL100 | EF3-100 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4268 | beam-bracings | 2046EF34LPL101 | EF3-101 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4269 | beam-bracings | 2046EF34LPL102 | EF3-102 | PL10*330 | 1 | 10.62 | E | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4270 | beam-bracings | 2046FF34B86 | FF3-86 | HEB400 | 1 | 435.01 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 17/04/2015 | 70 |
| 4271 | beam-bracings | 2046FF34B106 | FF3-106 | SHS300*10 | 1 | 742.14 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4272 | beam-bracings | 2046FF34B107 | FF3-107 | SHS300*10 | 1 | 742.14 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4273 | beam-bracings | 2046FF34B108 | FF3-108 | SHS300*10 | 1 | 751.61 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4274 | beam-bracings | 2046FF34B109 | FF3-109 | SHS300*10 | 1 | 751.61 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4275 | beam-bracings | 2046FF34B110 | FF3-110 | HEB300 | 1 | 318.84 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 15/06/2015 | 109 |
| 4276 | beam-bracings | 2046FF34BR103 | FF3-103 | CHS355.6*10.0 | 1 | 564.50 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4277 | beam-bracings | 2046FF34BR104 | FF3-104 | CHS323.9*6.3 | 1 | 234.85 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4278 | beam-bracings | 2046FF34BR105 | FF3-105 | CHS323.9*6.3 | 1 | 234.85 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4279 | beam-bracings | 2046FF34LPL74 | FF3-74 | PL20*390 | 1 | 47.15 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4280 | beam-bracings | 2046FF34LPL75 | FF3-75 | PL20*390 | 1 | 47.15 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4281 | beam-bracings | 2046FF34LPL76 | FF3-76 | PL20*390 | 1 | 47.15 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4282 | beam-bracings | 2046FF34LPL77 | FF3-77 | PL20*390 | 1 | 47.15 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4283 | beam-bracings | 2046FF34LPL78 | FF3-78 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4284 | beam-bracings | 2046FF34LPL79 | FF3-79 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4285 | beam-bracings | 2046FF34LPL80 | FF3-80 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4286 | beam-bracings | 2046FF34LPL81 | FF3-81 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4287 | beam-bracings | 2046FF34LPL82 | FF3-82 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4288 | beam-bracings | 2046FF34LPL83 | FF3-83 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4289 | beam-bracings | 2046FF34LPL84 | FF3-84 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4290 | beam-bracings | 2046FF34LPL85 | FF3-85 | PL15*350 | 1 | 16.90 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4291 | beam-bracings | 2046FF34LPL87 | FF3-87 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4292 | beam-bracings | 2046FF34LPL88 | FF3-88 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4293 | beam-bracings | 2046FF34LPL89 | FF3-89 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4294 | beam-bracings | 2046FF34LPL90 | FF3-90 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4295 | beam-bracings | 2046FF34LPL91 | FF3-91 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 01/08/2015 | 166 |
| 4296 | beam-bracings | 2046FF34LPL92 | FF3-92 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4297 | beam-bracings | 2046FF34LPL93 | FF3-93 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4298 | beam-bracings | 2046FF34LPL94 | FF3-94 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4299 | beam-bracings | 2046FF34LPL95 | FF3-95 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4300 | beam-bracings | 2046FF34LPL96 | FF3-96 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4301 | beam-bracings | 2046FF34LPL97 | FF3-97 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4302 | beam-bracings | 2046FF34LPL98 | FF3-98 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4303 | beam-bracings | 2046FF34LPL99 | FF3-99 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4304 | beam-bracings | 2046FF34LPL100 | FF3-100 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4305 | beam-bracings | 2046FF34LPL101 | FF3-101 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4306 | beam-bracings | 2046FF34LPL102 | FF3-102 | PL10*330 | 1 | 10.62 | F | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4307 | beam-bracings | 2046GF34B86 | GF3-86 | HEB400 | 1 | 435.01 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4308 | beam-bracings | 2046GF34B106 | GF3-106 | SHS300*10 | 1 | 742.14 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4309 | beam-bracings | 2046GF34B107 | GF3-107 | SHS300*10 | 1 | 742.14 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4310 | beam-bracings | 2046GF34B108 | GF3-108 | SHS300*10 | 1 | 751.61 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4311 | beam-bracings | 2046GF34B109 | GF3-109 | SHS300*10 | 1 | 751.61 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 25/03/2015 | 56 |
| 4312 | beam-bracings | 2046GF34B110 | GF3-110 | HEB300 | 1 | 318.84 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 15/06/2015 | 109 |
| 4313 | beam-bracings | 2046GF34BR103 | GF3-103 | CHS355.6*10.0 | 1 | 564.50 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/05/2015 | 87 |
| 4314 | beam-bracings | 2046GF34BR104 | GF3-104 | CHS323.9*6.3 | 1 | 234.85 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4315 | beam-bracings | 2046GF34BR105 | GF3-105 | CHS323.9*6.3 | 1 | 234.85 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 20/04/2015 | 73 |
| 4316 | beam-bracings | 2046GF34LPL74 | GF3-74 | PL20*390 | 1 | 47.15 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4317 | beam-bracings | 2046GF34LPL75 | GF3-75 | PL20*390 | 1 | 47.15 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 01/08/2015 | 166 |
| 4318 | beam-bracings | 2046GF34LPL76 | GF3-76 | PL20*390 | 1 | 47.15 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4319 | beam-bracings | 2046GF34LPL77 | GF3-77 | PL20*390 | 1 | 47.15 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 09/04/2015 | 64 |
| 4320 | beam-bracings | 2046GF34LPL78 | GF3-78 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4321 | beam-bracings | 2046GF34LPL79 | GF3-79 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4322 | beam-bracings | 2046GF34LPL80 | GF3-80 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4323 | beam-bracings | 2046GF34LPL81 | GF3-81 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4324 | beam-bracings | 2046GF34LPL82 | GF3-82 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4325 | beam-bracings | 2046GF34LPL83 | GF3-83 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4326 | beam-bracings | 2046GF34LPL84 | GF3-84 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4327 | beam-bracings | 2046GF34LPL85 | GF3-85 | PL15*350 | 1 | 16.90 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4328 | beam-bracings | 2046GF34LPL87 | GF3-87 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4329 | beam-bracings | 2046GF34LPL88 | GF3-88 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4330 | beam-bracings | 2046GF34LPL89 | GF3-89 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4331 | beam-bracings | 2046GF34LPL90 | GF3-90 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4332 | beam-bracings | 2046GF34LPL91 | GF3-91 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4333 | beam-bracings | 2046GF34LPL92 | GF3-92 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4334 | beam-bracings | 2046GF34LPL93 | GF3-93 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4335 | beam-bracings | 2046GF34LPL94 | GF3-94 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4336 | beam-bracings | 2046GF34LPL95 | GF3-95 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4337 | beam-bracings | 2046GF34LPL96 | GF3-96 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4338 | beam-bracings | 2046GF34LPL97 | GF3-97 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4339 | beam-bracings | 2046GF34LPL98 | GF3-98 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 18/03/2015 | 53 |
| 4340 | beam-bracings | 2046GF34LPL99 | GF3-99 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4341 | beam-bracings | 2046GF34LPL100 | GF3-100 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4342 | beam-bracings | 2046GF34LPL101 | GF3-101 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4343 | beam-bracings | 2046GF34LPL102 | GF3-102 | PL10*330 | 1 | 10.62 | G | 3 | 13.1-13.2 | Without Intumescent | Portugal | 27/01/2015 | 13/03/2015 | 50 |
| 4344 | beam-bracings | 2046HF34B86 | HF3-86 | HEB400 | 1 | 435.01 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/04/2015 | 73 |
| 4345 | beam-bracings | 2046HF34B106 | HF3-106 | SHS300*10 | 1 | 742.14 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 25/03/2015 | 56 |
| 4346 | beam-bracings | 2046HF34B107 | HF3-107 | SHS300*10 | 1 | 742.14 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 25/03/2015 | 56 |
| 4347 | beam-bracings | 2046HF34B108 | HF3-108 | SHS300*10 | 1 | 751.61 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 25/03/2015 | 56 |
| 4348 | beam-bracings | 2046HF34B109 | HF3-109 | SHS300*10 | 1 | 751.61 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 25/03/2015 | 56 |
| 4349 | beam-bracings | 2046HF34B110 | HF3-110 | HEB300 | 1 | 318.84 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 19/06/2015 | 114 |
| 4350 | beam-bracings | 2046HF34BR103 | HF3-103 | CHS355.6*10.0 | 1 | 564.50 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 15/06/2015 | 109 |
| 4351 | beam-bracings | 2046HF34BR104 | HF3-104 | CHS323.9*6.3 | 1 | 234.85 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/05/2015 | 87 |
| 4352 | beam-bracings | 2046HF34BR105 | HF3-105 | CHS323.9*6.3 | 1 | 234.85 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/05/2015 | 87 |
| 4353 | beam-bracings | 2046HF34LPL74 | HF3-74 | PL20*390 | 1 | 47.15 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 01/08/2015 | 166 |
| 4354 | beam-bracings | 2046HF34LPL75 | HF3-75 | PL20*390 | 1 | 47.15 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4355 | beam-bracings | 2046HF34LPL76 | HF3-76 | PL20*390 | 1 | 47.15 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4356 | beam-bracings | 2046HF34LPL77 | HF3-77 | PL20*390 | 1 | 47.15 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4357 | beam-bracings | 2046HF34LPL78 | HF3-78 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 01/08/2015 | 166 |
| 4358 | beam-bracings | 2046HF34LPL79 | HF3-79 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4359 | beam-bracings | 2046HF34LPL80 | HF3-80 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4360 | beam-bracings | 2046HF34LPL81 | HF3-81 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4361 | beam-bracings | 2046HF34LPL82 | HF3-82 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4362 | beam-bracings | 2046HF34LPL83 | HF3-83 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4363 | beam-bracings | 2046HF34LPL84 | HF3-84 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4364 | beam-bracings | 2046HF34LPL85 | HF3-85 | PL15*350 | 1 | 16.90 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4365 | beam-bracings | 2046HF34LPL87 | HF3-87 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4366 | beam-bracings | 2046HF34LPL88 | HF3-88 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4367 | beam-bracings | 2046HF34LPL89 | HF3-89 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4368 | beam-bracings | 2046HF34LPL90 | HF3-90 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4369 | beam-bracings | 2046HF34LPL91 | HF3-91 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4370 | beam-bracings | 2046HF34LPL92 | HF3-92 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4371 | beam-bracings | 2046HF34LPL93 | HF3-93 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4372 | beam-bracings | 2046HF34LPL94 | HF3-94 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4373 | beam-bracings | 2046HF34LPL95 | HF3-95 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4374 | beam-bracings | 2046HF34LPL96 | HF3-96 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4375 | beam-bracings | 2046HF34LPL97 | HF3-97 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4376 | beam-bracings | 2046HF34LPL98 | HF3-98 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4377 | beam-bracings | 2046HF34LPL99 | HF3-99 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4378 | beam-bracings | 2046HF34LPL100 | HF3-100 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4379 | beam-bracings | 2046HF34LPL101 | HF3-101 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4380 | beam-bracings | 2046HF34LPL102 | HF3-102 | PL10*330 | 1 | 10.62 | H | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4381 | beam-bracings | 2046IF34B86 | IF3-86 | HEB400 | 1 | 435.01 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/04/2015 | 73 |
| 4382 | beam-bracings | 2046IF34B106 | IF3-106 | SHS300*10 | 1 | 742.14 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4383 | beam-bracings | 2046IF34B107 | IF3-107 | SHS300*10 | 1 | 742.14 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 25/03/2015 | 56 |
| 4384 | beam-bracings | 2046IF34B108 | IF3-108 | SHS300*10 | 1 | 751.61 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4385 | beam-bracings | 2046IF34B109 | IF3-109 | SHS300*10 | 1 | 751.61 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/03/2015 | 54 |
| 4386 | beam-bracings | 2046IF34B110 | IF3-110 | HEB300 | 1 | 318.84 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 15/06/2015 | 109 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4387 | beam-bracings | 2046IF34BR103 | IF3-103 | CHS355.6*10.0 | 1 | 564.50 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/04/2015 | 73 |
| 4388 | beam-bracings | 2046IF34BR104 | IF3-104 | CHS323.9*6.3 | 1 | 234.85 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/04/2015 | 73 |
| 4389 | beam-bracings | 2046IF34BR105 | IF3-105 | CHS323.9*6.3 | 1 | 234.85 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 20/04/2015 | 73 |
| 4390 | beam-bracings | 2046IF34LPL74 | IF3-74 | PL20*390 | 1 | 47.15 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4391 | beam-bracings | 2046IF34LPL75 | IF3-75 | PL20*390 | 1 | 47.15 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4392 | beam-bracings | 2046IF34LPL76 | IF3-76 | PL20*390 | 1 | 47.15 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4393 | beam-bracings | 2046IF34LPL77 | IF3-77 | PL20*390 | 1 | 47.15 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 09/04/2015 | 64 |
| 4394 | beam-bracings | 2046IF34LPL78 | IF3-78 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4395 | beam-bracings | 2046IF34LPL79 | IF3-79 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4396 | beam-bracings | 2046IF34LPL80 | IF3-80 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4397 | beam-bracings | 2046IF34LPL81 | IF3-81 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4398 | beam-bracings | 2046IF34LPL82 | IF3-82 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4399 | beam-bracings | 2046IF34LPL83 | IF3-83 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4400 | beam-bracings | 2046IF34LPL84 | IF3-84 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4401 | beam-bracings | 2046IF34LPL85 | IF3-85 | PL15*350 | 1 | 16.90 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4402 | beam-bracings | 2046IF34LPL87 | IF3-87 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4403 | beam-bracings | 2046IF34LPL88 | IF3-88 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4404 | beam-bracings | 2046IF34LPL89 | IF3-89 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4405 | beam-bracings | 2046IF34LPL90 | IF3-90 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4406 | beam-bracings | 2046IF34LPL91 | IF3-91 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4407 | beam-bracings | 2046IF34LPL92 | IF3-92 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4408 | beam-bracings | 2046IF34LPL93 | IF3-93 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4409 | beam-bracings | 2046IF34LPL94 | IF3-94 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4410 | beam-bracings | 2046IF34LPL95 | IF3-95 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 01/08/2015 | 166 |
| 4411 | beam-bracings | 2046IF34LPL96 | IF3-96 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4412 | beam-bracings | 2046IF34LPL97 | IF3-97 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4413 | beam-bracings | 2046IF34LPL98 | IF3-98 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 01/08/2015 | 166 |
| 4414 | beam-bracings | 2046IF34LPL99 | IF3-99 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 01/08/2015 | 166 |
| 4415 | beam-bracings | 2046IF34LPL100 | IF3-100 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 18/03/2015 | 53 |
| 4416 | beam-bracings | 2046IF34LPL101 | IF3-101 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4417 | beam-bracings | 2046IF34LPL102 | IF3-102 | PL10*330 | 1 | 10.62 | I | 3 | 13.1-13.2 | Without Intumescent | Portugal | 28/01/2015 | 13/03/2015 | 50 |
| 4418 | beam-bracings | 2046JF34B87 | JF3-87 | HEB400 | 1 | 435.01 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 17/04/2015 | 70 |
| 4419 | beam-bracings | 2046JF34B99 | JF3-99 | SHS300*10 | 1 | 742.14 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4420 | beam-bracings | 2046JF34B100 | JF3-100 | SHS300*10 | 1 | 751.61 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 25/03/2015 | 56 |
| 4421 | beam-bracings | 2046JF34B102 | JF3-102 | HEB300 | 1 | 318.84 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 06/08/2015 | 154 |
| 4422 | beam-bracings | 2046JF34BR96 | JF3-96 | CHS355.6*10.0 | 1 | 564.50 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 20/04/2015 | 73 |
| 4423 | beam-bracings | 2046JF34BR97 | JF3-97 | CHS323.9*6.3 | 1 | 234.85 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 20/05/2015 | 87 |
| 4424 | beam-bracings | 2046JF34BR98 | JF3-98 | CHS323.9*6.3 | 1 | 234.85 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 20/04/2015 | 73 |
| 4425 | beam-bracings | 2046JF34LPL75 | JF3-75 | PL20*390 | 1 | 47.15 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 27/03/2015 | 59 |
| 4426 | beam-bracings | 2046JF34LPL76 | JF3-76 | PL20*390 | 1 | 47.15 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 27/03/2015 | 59 |
| 4427 | beam-bracings | 2046JF34LPL77 | JF3-77 | PL20*390 | 1 | 47.15 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 27/03/2015 | 59 |
| 4428 | beam-bracings | 2046JF34LPL78 | JF3-78 | PL20*390 | 1 | 47.15 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 27/03/2015 | 59 |
| 4429 | beam-bracings | 2046JF34LPL79 | JF3-79 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4430 | beam-bracings | 2046JF34LPL80 | JF3-80 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4431 | beam-bracings | 2046JF34LPL81 | JF3-81 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4432 | beam-bracings | 2046JF34LPL82 | JF3-82 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4433 | beam-bracings | 2046JF34LPL83 | JF3-83 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4434 | beam-bracings | 2046JF34LPL84 | JF3-84 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4435 | beam-bracings | 2046JF34LPL85 | JF3-85 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4436 | beam-bracings | 2046JF34LPL86 | JF3-86 | PL15*350 | 1 | 16.90 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4437 | beam-bracings | 2046JF34LPL88 | JF3-88 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4438 | beam-bracings | 2046JF34LPL89 | JF3-89 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4439 | beam-bracings | 2046JF34LPL90 | JF3-90 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4440 | beam-bracings | 2046JF34LPL91 | JF3-91 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4441 | beam-bracings | 2046JF34LPL92 | JF3-92 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4442 | beam-bracings | 2046JF34LPL93 | JF3-93 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4443 | beam-bracings | 2046JF34LPL94 | JF3-94 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4444 | beam-bracings | 2046JF34LPL95 | JF3-95 | PL10*330 | 1 | 10.62 | J | 3 | 13.1-13.2 | Without Intumescent | Portugal | 29/01/2015 | 08/04/2015 | 63 |
| 4448 | beam-bracings | 2046EF44B117 | EF4-117 | SHS300*10 | 1 | 742.14 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 135 |
| 4449 | beam-bracings | 2046EF44B118 | EF4-118 | SHS300*10 | 1 | 742.14 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 20/07/2015 | 137 |
| 4450 | beam-bracings | 2046EF44B119 | EF4-119 | SHS300*10 | 1 | 765.99 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4451 | beam-bracings | 2046EF44B120 | EF4-120 | HEB300 | 1 | 221.88 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 08/07/2015 | 130 |
| 4452 | beam-bracings | 2046EF44B121 | EF4-121 | HEA220 | 1 | 102.21 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4453 | beam-bracings | 2046EF44B122 | EF4-122 | HEA220 | 1 | 106.33 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4454 | beam-bracings | 2046EF44BR123 | EF4-123 | CHS139.7*8.0 | 1 | 67.06 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4455 | beam-bracings | 2046EF44BR124 | EF4-124 | CHS139.7*8.0 | 1 | 67.06 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4456 | beam-bracings | 2046EF44BR125 | EF4-125 | CHS139.7*8.0 | 1 | 53.00 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4457 | beam-bracings | 2046EF44LPL94 | EF4-94 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4458 | beam-bracings | 2046EF44LPL95 | EF4-95 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4459 | beam-bracings | 2046EF44LPL96 | EF4-96 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4460 | beam-bracings | 2046EF44LPL97 | EF4-97 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4461 | beam-bracings | 2046EF44LPL100 | EF4-100 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4462 | beam-bracings | 2046EF44LPL101 | EF4-101 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4463 | beam-bracings | 2046EF44LPL102 | EF4-102 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4464 | beam-bracings | 2046EF44LPL103 | EF4-103 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4465 | beam-bracings | 2046EF44LPL104 | EF4-104 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4466 | beam-bracings | 2046EF44LPL105 | EF4-105 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4467 | beam-bracings | 2046EF44LPL106 | EF4-106 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4468 | beam-bracings | 2046EF44LPL107 | EF4-107 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4469 | beam-bracings | 2046EF44LPL108 | EF4-108 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4470 | beam-bracings | 2046EF44LPL109 | EF4-109 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4471 | beam-bracings | 2046EF44LPL110 | EF4-110 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4472 | beam-bracings | 2046EF44LPL111 | EF4-111 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4473 | beam-bracings | 2046EF44LPL112 | EF4-112 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4474 | beam-bracings | 2046EF44LPL113 | EF4-113 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4475 | beam-bracings | 2046EF44LPL114 | EF4-114 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4476 | beam-bracings | 2046EF44LPL115 | EF4-115 | PL10*330 | 1 | 10.62 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4477 | beam-bracings | 2046EF44LPL169 | EF4-169 | PL10*170 | 1 | 4.67 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4478 | beam-bracings | 2046EF44LPL170 | EF4-170 | PL10*170 | 1 | 4.67 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4479 | beam-bracings | 2046EF44LPL171 | EF4-171 | PL10*170 | 1 | 4.67 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4480 | beam-bracings | 2046EF44LPL172 | EF4-172 | PL10*170 | 1 | 4.67 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4481 | beam-bracings | 2046EF44LPL221 | EF4-221 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4482 | beam-bracings | 2046EF44LPL222 | EF4-222 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4483 | beam-bracings | 2046EF44LPL223 | EF4-223 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4484 | beam-bracings | 2046EF44LPL224 | EF4-224 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4485 | beam-bracings | 2046EF44LPL225 | EF4-225 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4486 | beam-bracings | 2046EF44LPL226 | EF4-226 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4487 | beam-bracings | 2046EF44LPL227 | EF4-227 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4488 | beam-bracings | 2046EF44LPL228 | EF4-228 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4489 | beam-bracings | 2046EF44LPL229 | EF4-229 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4490 | beam-bracings | 2046EF44LPL230 | EF4-230 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4491 | beam-bracings | 2046EF44LPL231 | EF4-231 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4492 | beam-bracings | 2046EF44LPL232 | EF4-232 | PL10*170 | 1 | 4.40 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4493 | beam-bracings | 2046EF44TR116 | EF4-116 | SHS300*10 | 1 | 2316.27 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4494 | beam-bracings | 2046EF44V98 | EF4-98 | HEB500 | 1 | 885.08 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4495 | beam-bracings | 2046FF44B117 | FF4-117 | SHS300*10 | 1 | 742.14 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 135 |
| 4496 | beam-bracings | 2046FF44B118 | FF4-118 | SHS300*10 | 1 | 742.14 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 135 |
| 4497 | beam-bracings | 2046FF44B119 | FF4-119 | SHS300*10 | 1 | 765.99 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 135 |
| 4498 | beam-bracings | 2046FF44B120 | FF4-120 | HEB300 | 1 | 221.88 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4499 | beam-bracings | 2046FF44B121 | FF4-121 | HEA220 | 1 | 102.21 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4500 | beam-bracings | 2046FF44B122 | FF4-122 | HEA220 | 1 | 106.33 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4501 | beam-bracings | 2046FF44BR123 | FF4-123 | CHS139.7*8.0 | 1 | 67.06 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4502 | beam-bracings | 2046FF44BR124 | FF4-124 | CHS139.7*8.0 | 1 | 67.06 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4503 | beam-bracings | 2046FF44BR125 | FF4-125 | CHS139.7*8.0 | 1 | 53.00 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4504 | beam-bracings | 2046FF44LPL94 | FF4-94 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4505 | beam-bracings | 2046FF44LPL95 | FF4-95 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4506 | beam-bracings | 2046FF44LPL96 | FF4-96 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4507 | beam-bracings | 2046FF44LPL97 | FF4-97 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4508 | beam-bracings | 2046FF44LPL100 | FF4-100 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4509 | beam-bracings | 2046FF44LPL102 | FF4-102 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4510 | beam-bracings | 2046FF44LPL103 | FF4-103 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4511 | beam-bracings | 2046FF44LPL104 | FF4-104 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4512 | beam-bracings | 2046FF44LPL105 | FF4-105 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4513 | beam-bracings | 2046FF44LPL106 | FF4-106 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4514 | beam-bracings | 2046FF44LPL107 | FF4-107 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4515 | beam-bracings | 2046FF44LPL108 | FF4-108 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4516 | beam-bracings | 2046FF44LPL109 | FF4-109 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4517 | beam-bracings | 2046FF44LPL110 | FF4-110 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4518 | beam-bracings | 2046FF44LPL111 | FF4-111 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4519 | beam-bracings | 2046FF44LPL112 | FF4-112 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4520 | beam-bracings | 2046FF44LPL113 | FF4-113 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4521 | beam-bracings | 2046FF44LPL114 | FF4-114 | PL10*330 | 1 | 10.62 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4522 | beam-bracings | 2046FF44LPL193 | FF4-193 | PL10*170 | 1 | 4.67 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4523 | beam-bracings | 2046FF44LPL194 | FF4-194 | PL10*170 | 1 | 4.67 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4524 | beam-bracings | 2046FF44LPL196 | FF4-196 | PL10*170 | 1 | 4.67 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4525 | beam-bracings | 2046FF44LPL221 | FF4-221 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4526 | beam-bracings | 2046FF44LPL222 | FF4-222 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4527 | beam-bracings | 2046FF44LPL223 | FF4-223 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4528 | beam-bracings | 2046FF44LPL224 | FF4-224 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4529 | beam-bracings | 2046FF44LPL225 | FF4-225 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4530 | beam-bracings | 2046FF44LPL226 | FF4-226 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4531 | beam-bracings | 2046FF44LPL227 | FF4-227 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4532 | beam-bracings | 2046FF44LPL229 | FF4-229 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4533 | beam-bracings | 2046FF44LPL230 | FF4-230 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4534 | beam-bracings | 2046FF44LPL231 | FF4-231 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4535 | beam-bracings | 2046FF44LPL232 | FF4-232 | PL10*170 | 1 | 4.40 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4536 | beam-bracings | 2046FF44TR116 | FF4-116 | SHS300*10 | 1 | 2316.27 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4537 | beam-bracings | 2046FF44V98 | FF4-98 | HEB500 | 1 | 885.08 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 136 |
| 4538 | beam-bracings | 2046GF44B118 | GF4-118 | SHS300*10 | 1 | 742.14 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4539 | beam-bracings | 2046GF44B119 | GF4-119 | SHS300*10 | 1 | 742.14 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4540 | beam-bracings | 2046GF44B120 | GF4-120 | SHS300*10 | 1 | 765.99 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4541 | beam-bracings | 2046GF44B121 | GF4-121 | HEB300 | 1 | 221.88 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4542 | beam-bracings | 2046GF44B122 | GF4-122 | HEA220 | 1 | 102.21 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4543 | beam-bracings | 2046GF44B123 | GF4-123 | HEA220 | 1 | 106.33 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4544 | beam-bracings | 2046GF44BR124 | GF4-124 | CHS139.7*8.0 | 1 | 67.06 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4545 | beam-bracings | 2046GF44BR125 | GF4-125 | CHS139.7*8.0 | 1 | 67.06 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4546 | beam-bracings | 2046GF44BR126 | GF4-126 | CHS139.7*8.0 | 1 | 53.00 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4547 | beam-bracings | 2046GF44BR127 | GF4-127 | CHS139.7*8.0 | 1 | 53.00 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4548 | beam-bracings | 2046GF44LPL95 | GF4-95 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4549 | beam-bracings | 2046GF44LPL96 | GF4-96 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4550 | beam-bracings | 2046GF44LPL97 | GF4-97 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4551 | beam-bracings | 2046GF44LPL98 | GF4-98 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4552 | beam-bracings | 2046GF44LPL101 | GF4-101 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4553 | beam-bracings | 2046GF44LPL102 | GF4-102 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4554 | beam-bracings | 2046GF44LPL103 | GF4-103 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4555 | beam-bracings | 2046GF44LPL104 | GF4-104 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4556 | beam-bracings | 2046GF44LPL106 | GF4-106 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4557 | beam-bracings | 2046GF44LPL107 | GF4-107 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4558 | beam-bracings | 2046GF44LPL108 | GF4-108 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4559 | beam-bracings | 2046GF44LPL109 | GF4-109 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4560 | beam-bracings | 2046GF44LPL110 | GF4-110 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4561 | beam-bracings | 2046GF44LPL111 | GF4-111 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4562 | beam-bracings | 2046GF44LPL112 | GF4-112 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4563 | beam-bracings | 2046GF44LPL113 | GF4-113 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4564 | beam-bracings | 2046GF44LPL114 | GF4-114 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4565 | beam-bracings | 2046GF44LPL115 | GF4-115 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4566 | beam-bracings | 2046GF44LPL116 | GF4-116 | PL10*330 | 1 | 10.62 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4567 | beam-bracings | 2046GF44LPL205 | GF4-205 | PL10*170 | 1 | 4.67 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4568 | beam-bracings | 2046GF44LPL206 | GF4-206 | PL10*170 | 1 | 4.67 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4569 | beam-bracings | 2046GF44LPL207 | GF4-207 | PL10*170 | 1 | 4.67 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4570 | beam-bracings | 2046GF44LPL208 | GF4-208 | PL10*170 | 1 | 4.67 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4571 | beam-bracings | 2046GF44LPL233 | GF4-233 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4572 | beam-bracings | 2046GF44LPL234 | GF4-234 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4573 | beam-bracings | 2046GF44LPL235 | GF4-235 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4574 | beam-bracings | 2046GF44LPL236 | GF4-236 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4575 | beam-bracings | 2046GF44LPL237 | GF4-237 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4576 | beam-bracings | 2046GF44LPL238 | GF4-238 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4577 | beam-bracings | 2046GF44LPL239 | GF4-239 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4578 | beam-bracings | 2046GF44LPL240 | GF4-240 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4579 | beam-bracings | 2046GF44LPL241 | GF4-241 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4580 | beam-bracings | 2046GF44LPL242 | GF4-242 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4581 | beam-bracings | 2046GF44LPL243 | GF4-243 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4582 | beam-bracings | 2046GF44LPL244 | GF4-244 | PL10*170 | 1 | 4.40 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4583 | beam-bracings | 2046GF44TR117 | GF4-117 | SHS300*10 | 1 | 2316.27 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4584 | beam-bracings | 2046GF44V99 | GF4-99 | HEB500 | 1 | 885.08 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 136 |
| 4585 | beam-bracings | 2046HF44B118 | HF4-118 | SHS300*10 | 1 | 742.14 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4586 | beam-bracings | 2046HF44B119 | HF4-119 | SHS300*10 | 1 | 742.14 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 135 |
| 4587 | beam-bracings | 2046HF44B120 | HF4-120 | SHS300*10 | 1 | 765.99 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4588 | beam-bracings | 2046HF44B121 | HF4-121 | HEB300 | 1 | 221.88 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4589 | beam-bracings | 2046HF44B122 | HF4-122 | HEB300 | 1 | 239.30 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 15/07/2015 | 134 |
| 4590 | beam-bracings | 2046HF44B123 | HF4-123 | HEA220 | 1 | 102.21 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4591 | beam-bracings | 2046HF44B124 | HF4-124 | HEA220 | 1 | 106.33 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4592 | beam-bracings | 2046HF44BR125 | HF4-125 | CHS139.7*8.0 | 1 | 67.06 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4593 | beam-bracings | 2046HF44BR126 | HF4-126 | CHS139.7*8.0 | 1 | 67.06 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4594 | beam-bracings | 2046HF44BR127 | HF4-127 | CHS139.7*8.0 | 1 | 53.00 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4595 | beam-bracings | 2046HF44BR128 | HF4-128 | CHS139.7*8.0 | 1 | 53.00 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4596 | beam-bracings | 2046HF44LPL95 | HF4-95 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4597 | beam-bracings | 2046HF44LPL96 | HF4-96 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4598 | beam-bracings | 2046HF44LPL97 | HF4-97 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4599 | beam-bracings | 2046HF44LPL98 | HF4-98 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4600 | beam-bracings | 2046HF44LPL101 | HF4-101 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4601 | beam-bracings | 2046HF44LPL102 | HF4-102 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4602 | beam-bracings | 2046HF44LPL103 | HF4-103 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4603 | beam-bracings | 2046HF44LPL104 | HF4-104 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4604 | beam-bracings | 2046HF44LPL105 | HF4-105 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4605 | beam-bracings | 2046HF44LPL106 | HF4-106 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4606 | beam-bracings | 2046HF44LPL107 | HF4-107 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4607 | beam-bracings | 2046HF44LPL108 | HF4-108 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4608 | beam-bracings | 2046HF44LPL109 | HF4-109 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4609 | beam-bracings | 2046HF44LPL110 | HF4-110 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4610 | beam-bracings | 2046HF44LPL111 | HF4-111 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4611 | beam-bracings | 2046HF44LPL112 | HF4-112 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4612 | beam-bracings | 2046HF44LPL113 | HF4-113 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4613 | beam-bracings | 2046HF44LPL114 | HF4-114 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4614 | beam-bracings | 2046HF44LPL115 | HF4-115 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4615 | beam-bracings | 2046HF44LPL116 | HF4-116 | PL10*330 | 1 | 10.62 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4616 | beam-bracings | 2046HF44LPL195 | HF4-195 | PL10*170 | 1 | 4.67 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4617 | beam-bracings | 2046HF44LPL196 | HF4-196 | PL10*170 | 1 | 4.67 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4618 | beam-bracings | 2046HF44LPL197 | HF4-197 | PL10*170 | 1 | 4.67 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4619 | beam-bracings | 2046HF44LPL198 | HF4-198 | PL10*170 | 1 | 4.67 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4620 | beam-bracings | 2046HF44LPL223 | HF4-223 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4621 | beam-bracings | 2046HF44LPL224 | HF4-224 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4622 | beam-bracings | 2046HF44LPL225 | HF4-225 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4623 | beam-bracings | 2046HF44LPL226 | HF4-226 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4624 | beam-bracings | 2046HF44LPL227 | HF4-227 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4625 | beam-bracings | 2046HF44LPL228 | HF4-228 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4626 | beam-bracings | 2046HF44LPL229 | HF4-229 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4627 | beam-bracings | 2046HF44LPL230 | HF4-230 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4628 | beam-bracings | 2046HF44LPL231 | HF4-231 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4629 | beam-bracings | 2046HF44LPL232 | HF4-232 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4630 | beam-bracings | 2046HF44LPL233 | HF4-233 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4631 | beam-bracings | 2046HF44LPL234 | HF4-234 | PL10*170 | 1 | 4.40 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4632 | beam-bracings | 2046HF44TR117 | HF4-117 | SHS300*10 | 1 | 2316.27 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4633 | beam-bracings | 2046HF44V99 | HF4-99 | HEB500 | 1 | 885.08 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 08/07/2015 | 130 |
| 4634 | beam-bracings | 2046IF44B118 | IF4-118 | SHS300*10 | 1 | 742.14 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4635 | beam-bracings | 2046IF44B119 | IF4-119 | SHS300*10 | 1 | 742.14 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4636 | beam-bracings | 2046IF44B120 | IF4-120 | SHS300*10 | 1 | 765.99 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4637 | beam-bracings | 2046IF44B121 | IF4-121 | HEB300 | 1 | 221.88 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 20/07/2015 | 137 |
| 4638 | beam-bracings | 2046IF44B122 | IF4-122 | HEB300 | 1 | 239.30 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4639 | beam-bracings | 2046IF44B123 | IF4-123 | HEA220 | 1 | 102.21 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 20/07/2015 | 137 |
| 4640 | beam-bracings | 2046IF44B124 | IF4-124 | HEA220 | 1 | 106.33 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4641 | beam-bracings | 2046IF44BR125 | IF4-125 | CHS139.7*8.0 | 1 | 67.06 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4642 | beam-bracings | 2046IF44BR126 | IF4-126 | CHS139.7*8.0 | 1 | 67.06 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4643 | beam-bracings | 2046IF44BR127 | IF4-127 | CHS139.7*8.0 | 1 | 53.00 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4644 | beam-bracings | 2046IF44BR128 | IF4-128 | CHS139.7*8.0 | 1 | 53.00 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4645 | beam-bracings | 2046IF44LPL195 | IF4-195 | PL10*170 | 1 | 4.67 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4646 | beam-bracings | 2046IF44LPL196 | IF4-196 | PL10*170 | 1 | 4.67 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4647 | beam-bracings | 2046IF44LPL197 | IF4-197 | PL10*170 | 1 | 4.67 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4648 | beam-bracings | 2046IF44LPL198 | IF4-198 | PL10*170 | 1 | 4.67 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4649 | beam-bracings | 2046IF44LPL223 | IF4-223 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4650 | beam-bracings | 2046IF44LPL224 | IF4-224 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4651 | beam-bracings | 2046IF44LPL225 | IF4-225 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4652 | beam-bracings | 2046IF44LPL226 | IF4-226 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4653 | beam-bracings | 2046IF44LPL227 | IF4-227 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4654 | beam-bracings | 2046IF44LPL228 | IF4-228 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4655 | beam-bracings | 2046IF44LPL229 | IF4-229 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4656 | beam-bracings | 2046IF44LPL230 | IF4-230 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4657 | beam-bracings | 2046IF44LPL231 | IF4-231 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4658 | beam-bracings | 2046IF44LPL232 | IF4-232 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4659 | beam-bracings | 2046IF44LPL233 | IF4-233 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4660 | beam-bracings | 2046IF44LPL234 | IF4-234 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4661 | beam-bracings | 2046IF44LPL235 | IF4-235 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4662 | beam-bracings | 2046IF44LPL236 | IF4-236 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4663 | beam-bracings | 2046IF44LPL237 | IF4-237 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4664 | beam-bracings | 2046IF44LPL238 | IF4-238 | PL10*330 | 1 | 10.62 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4665 | beam-bracings | 2046IF44LPL240 | IF4-240 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4666 | beam-bracings | 2046IF44LPL241 | IF4-241 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4667 | beam-bracings | 2046IF44LPL242 | IF4-242 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4668 | beam-bracings | 2046IF44LPL243 | IF4-243 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4669 | beam-bracings | 2046IF44LPL244 | IF4-244 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4670 | beam-bracings | 2046IF44LPL245 | IF4-245 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4671 | beam-bracings | 2046IF44LPL246 | IF4-246 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4672 | beam-bracings | 2046IF44LPL247 | IF4-247 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4673 | beam-bracings | 2046IF44LPL248 | IF4-248 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4674 | beam-bracings | 2046IF44LPL249 | IF4-249 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4675 | beam-bracings | 2046IF44LPL250 | IF4-250 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4676 | beam-bracings | 2046IF44LPL251 | IF4-251 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4677 | beam-bracings | 2046IF44LPL252 | IF4-252 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4678 | beam-bracings | 2046IF44LPL253 | IF4-253 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4679 | beam-bracings | 2046IF44LPL254 | IF4-254 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4680 | beam-bracings | 2046IF44LPL255 | IF4-255 | PL10*170 | 1 | 4.40 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4681 | beam-bracings | 2046IF44TR117 | IF4-117 | SHS300*10 | 1 | 2316.27 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4682 | beam-bracings | 2046IF44V99 | IF4-99 | HEB500 | 1 | 885.08 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 136 |
| 4683 | beam-bracings | 2046JF44B121 | JF4-121 | SHS300*10 | 1 | 742.14 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4684 | beam-bracings | 2046JF44B122 | JF4-122 | SHS300*10 | 1 | 742.14 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 135 |
| 4685 | beam-bracings | 2046JF44B123 | JF4-123 | SHS300*10 | 1 | 765.99 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 16/07/2015 | 134 |
| 4686 | beam-bracings | 2046JF44B125 | JF4-125 | HEB300 | 1 | 239.18 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4687 | beam-bracings | 2046JF44B126 | JF4-126 | HEB300 | 1 | 221.88 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4688 | beam-bracings | 2046JF44B127 | JF4-127 | HEA220 | 1 | 102.21 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4689 | beam-bracings | 2046JF44BR129 | JF4-129 | CHS139.7*8.0 | 1 | 67.06 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4690 | beam-bracings | 2046JF44BR130 | JF4-130 | CHS139.7*8.0 | 1 | 67.06 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4691 | beam-bracings | 2046JF44BR131 | JF4-131 | CHS139.7*8.0 | 1 | 53.00 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 22/07/2015 | 138 |
| 4692 | beam-bracings | 2046JF44BR132 | JF4-132 | CHS139.7*8.0 | 1 | 53.00 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 28/07/2015 | 140 |
| 4693 | beam-bracings | 2046JF44LPL190 | JF4-190 | PL10*170 | 1 | 4.67 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4694 | beam-bracings | 2046JF44LPL191 | JF4-191 | PL10*170 | 1 | 4.67 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4695 | beam-bracings | 2046JF44LPL192 | JF4-192 | PL10*170 | 1 | 4.67 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4696 | beam-bracings | 2046JF44LPL193 | JF4-193 | PL10*170 | 1 | 4.67 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4697 | beam-bracings | 2046JF44LPL218 | JF4-218 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4698 | beam-bracings | 2046JF44LPL219 | JF4-219 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4699 | beam-bracings | 2046JF44LPL220 | JF4-220 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4700 | beam-bracings | 2046JF44LPL221 | JF4-221 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4701 | beam-bracings | 2046JF44LPL222 | JF4-222 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4702 | beam-bracings | 2046JF44LPL223 | JF4-223 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4703 | beam-bracings | 2046JF44LPL224 | JF4-224 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4704 | beam-bracings | 2046JF44LPL225 | JF4-225 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4705 | beam-bracings | 2046JF44LPL226 | JF4-226 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4706 | beam-bracings | 2046JF44LPL227 | JF4-227 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4707 | beam-bracings | 2046JF44LPL228 | JF4-228 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4708 | beam-bracings | 2046JF44LPL229 | JF4-229 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4709 | beam-bracings | 2046JF44LPL230 | JF4-230 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4710 | beam-bracings | 2046JF44LPL231 | JF4-231 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4711 | beam-bracings | 2046JF44LPL232 | JF4-232 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4712 | beam-bracings | 2046JF44LPL233 | JF4-233 | PL10*330 | 1 | 10.62 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4713 | beam-bracings | 2046JF44LPL234 | JF4-234 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4714 | beam-bracings | 2046JF44LPL235 | JF4-235 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4715 | beam-bracings | 2046JF44LPL236 | JF4-236 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4716 | beam-bracings | 2046JF44LPL237 | JF4-237 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4717 | beam-bracings | 2046JF44LPL238 | JF4-238 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4718 | beam-bracings | 2046JF44LPL239 | JF4-239 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4719 | beam-bracings | 2046JF44LPL241 | JF4-241 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4720 | beam-bracings | 2046JF44LPL242 | JF4-242 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4721 | beam-bracings | 2046JF44LPL243 | JF4-243 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 18/06/2015 | 111 |
| 4722 | beam-bracings | 2046JF44LPL245 | JF4-245 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4723 | beam-bracings | 2046JF44LPL246 | JF4-246 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4724 | beam-bracings | 2046JF44LPL247 | JF4-247 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4725 | beam-bracings | 2046JF44LPL249 | JF4-249 | PL10*170 | 1 | 4.40 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 19/06/2015 | 112 |
| 4726 | beam-bracings | 2046JF44TR120 | JF4-120 | SHS300*10 | 1 | 2316.27 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 13/07/2015 | 132 |
| 4727 | beam-bracings | 2046JF44V101 | JF4-101 | HEB500 | 1 | 885.08 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 19/05/2015 | 17/07/2015 | 136 |
| 4728 | beam-bracings | 2046EF54B62 | EF5-62 | SHS300*10 | 1 | 774.13 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 135 |
| 4729 | beam-bracings | 2046EF54B88 | EF5-88 | SHS300*10 | 1 | 782.26 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 28/07/2015 | 140 |
| 4730 | beam-bracings | 2046EF54B89 | EF5-89 | SHS300*10 | 1 | 782.31 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 135 |
| 4731 | beam-bracings | 2046EF54B92 | EF5-92 | HEA300 | 1 | 555.00 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 22/07/2015 | 138 |
| 4732 | beam-bracings | 2046EF54B94 | EF5-94 | HEB320 | 1 | 814.37 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4733 | beam-bracings | 2046EF54B95 | EF5-95 | HEB320 | 1 | 1012.28 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 135 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4734 | beam-bracings | 2046EF54BR63 | EF5-63 | CHS168.3*10.0 | 1 | 251.41 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4735 | beam-bracings | 2046EF54BR64 | EF5-64 | CHS168.3*10.0 | 1 | 251.41 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4736 | beam-bracings | 2046EF54BR65 | EF5-65 | CHS168.3*10.0 | 1 | 237.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4737 | beam-bracings | 2046EF54BR66 | EF5-66 | CHS168.3*10.0 | 1 | 237.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4738 | beam-bracings | 2046EF54LPL97 | EF5-97 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4739 | beam-bracings | 2046EF54LPL98 | EF5-98 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4740 | beam-bracings | 2046EF54LPL99 | EF5-99 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4741 | beam-bracings | 2046EF54LPL100 | EF5-100 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4742 | beam-bracings | 2046EF54LPL101 | EF5-101 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4743 | beam-bracings | 2046EF54LPL102 | EF5-102 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4744 | beam-bracings | 2046EF54LPL103 | EF5-103 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4745 | beam-bracings | 2046EF54LPL104 | EF5-104 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4746 | beam-bracings | 2046EF54LPL105 | EF5-105 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4747 | beam-bracings | 2046EF54LPL106 | EF5-106 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4748 | beam-bracings | 2046EF54LPL107 | EF5-107 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4749 | beam-bracings | 2046EF54LPL108 | EF5-108 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4750 | beam-bracings | 2046EF54LPL109 | EF5-109 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4751 | beam-bracings | 2046EF54LPL110 | EF5-110 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4752 | beam-bracings | 2046EF54LPL111 | EF5-111 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4753 | beam-bracings | 2046EF54LPL112 | EF5-112 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4754 | beam-bracings | 2046EF54LPL113 | EF5-113 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4755 | beam-bracings | 2046EF54LPL114 | EF5-114 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4756 | beam-bracings | 2046EF54LPL115 | EF5-115 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4757 | beam-bracings | 2046EF54LPL116 | EF5-116 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4758 | beam-bracings | 2046EF54LPL117 | EF5-117 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4759 | beam-bracings | 2046EF54LPL118 | EF5-118 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4760 | beam-bracings | 2046EF54LPL119 | EF5-119 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4761 | beam-bracings | 2046EF54LPL120 | EF5-120 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4762 | beam-bracings | 2046EF54LPL121 | EF5-121 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4763 | beam-bracings | 2046EF54LPL122 | EF5-122 | PL10*200 | 1 | 5.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4764 | beam-bracings | 2046EF54LPL123 | EF5-123 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4765 | beam-bracings | 2046EF54LPL124 | EF5-124 | PL10*330 | 1 | 10.62 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4766 | beam-bracings | 2046EF54LPR93 | EF5-93 | HEB320 | 1 | 461.88 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 08/07/2015 | 130 |
| 4767 | beam-bracings | 2046EF54V83 | EF5-83 | RHS300*100*10 | 1 | 1197.67 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 31/07/2015 | 143 |
| 4768 | beam-bracings | 2046EF54V90 | EF5-90 | PL30*904.5 | 1 | 287.88 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 10/07/2015 | 131 |
| 4769 | beam-bracings | 2046EF54V91 | EF5-91 | PL30*904.5 | 1 | 287.88 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 10/07/2015 | 131 |
| 4770 | beam-bracings | 2046FF54B62 | FF5-62 | SHS300*10 | 1 | 774.13 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4771 | beam-bracings | 2046FF54B88 | FF5-88 | SHS300*10 | 1 | 785.92 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 28/07/2015 | 140 |
| 4772 | beam-bracings | 2046FF54B89 | FF5-89 | SHS300*10 | 1 | 789.36 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 136 |
| 4773 | beam-bracings | 2046FF54B92 | FF5-92 | HEA300 | 1 | 555.00 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 22/07/2015 | 138 |
| 4774 | beam-bracings | 2046FF54B94 | FF5-94 | HEB320 | 1 | 814.37 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 135 |
| 4775 | beam-bracings | 2046FF54B95 | FF5-95 | HEB320 | 1 | 989.32 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 28/07/2015 | 140 |
| 4776 | beam-bracings | 2046FF54BR63 | FF5-63 | CHS168.3*10.0 | 1 | 251.41 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4777 | beam-bracings | 2046FF54BR64 | FF5-64 | CHS168.3*10.0 | 1 | 251.41 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4778 | beam-bracings | 2046FF54BR65 | FF5-65 | CHS168.3*10.0 | 1 | 237.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 28/07/2015 | 140 |
| 4779 | beam-bracings | 2046FF54BR66 | FF5-66 | CHS168.3*10.0 | 1 | 237.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4780 | beam-bracings | 2046FF54LPL97 | FF5-97 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4781 | beam-bracings | 2046FF54LPL98 | FF5-98 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4782 | beam-bracings | 2046FF54LPL99 | FF5-99 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4783 | beam-bracings | 2046FF54LPL100 | FF5-100 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4784 | beam-bracings | 2046FF54LPL101 | FF5-101 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4785 | beam-bracings | 2046FF54LPL102 | FF5-102 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4786 | beam-bracings | 2046FF54LPL103 | FF5-103 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4787 | beam-bracings | 2046FF54LPL104 | FF5-104 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4788 | beam-bracings | 2046FF54LPL105 | FF5-105 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4789 | beam-bracings | 2046FF54LPL106 | FF5-106 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4790 | beam-bracings | 2046FF54LPL107 | FF5-107 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4791 | beam-bracings | 2046FF54LPL108 | FF5-108 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4792 | beam-bracings | 2046FF54LPL109 | FF5-109 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4793 | beam-bracings | 2046FF54LPL110 | FF5-110 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 01/08/2015 | 166 |
| 4794 | beam-bracings | 2046FF54LPL111 | FF5-111 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4795 | beam-bracings | 2046FF54LPL112 | FF5-112 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4796 | beam-bracings | 2046FF54LPL113 | FF5-113 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4797 | beam-bracings | 2046FF54LPL114 | FF5-114 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4798 | beam-bracings | 2046FF54LPL115 | FF5-115 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4799 | beam-bracings | 2046FF54LPL116 | FF5-116 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4800 | beam-bracings | 2046FF54LPL117 | FF5-117 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4801 | beam-bracings | 2046FF54LPL118 | FF5-118 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4802 | beam-bracings | 2046FF54LPL119 | FF5-119 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4803 | beam-bracings | 2046FF54LPL120 | FF5-120 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4804 | beam-bracings | 2046FF54LPL121 | FF5-121 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4805 | beam-bracings | 2046FF54LPL122 | FF5-122 | PL10*330 | 1 | 10.62 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4806 | beam-bracings | 2046FF54LPL123 | FF5-123 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4807 | beam-bracings | 2046FF54LPL124 | FF5-124 | PL10*200 | 1 | 5.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4808 | beam-bracings | 2046FF54LPR93 | FF5-93 | HEB320 | 1 | 461.88 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 08/07/2015 | 130 |
| 4809 | beam-bracings | 2046FF54V83 | FF5-83 | RHS300*100*10 | 1 | 1197.67 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 31/07/2015 | 143 |
| 4810 | beam-bracings | 2046FF54V90 | FF5-90 | PL30*904.5 | 1 | 287.88 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 10/07/2015 | 131 |
| 4811 | beam-bracings | 2046FF54V91 | FF5-91 | PL30*904.5 | 1 | 287.88 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 10/07/2015 | 131 |
| 4812 | beam-bracings | 2046GF54B62 | GF5-62 | SHS300*10 | 1 | 774.13 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 135 |
| 4813 | beam-bracings | 2046GF54B88 | GF5-88 | SHS300*10 | 1 | 782.26 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 13/07/2015 | 132 |
| 4814 | beam-bracings | 2046GF54B89 | GF5-89 | SHS300*10 | 1 | 782.31 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 13/07/2015 | 132 |
| 4815 | beam-bracings | 2046GF54B92 | GF5-92 | HEA300 | 1 | 555.00 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 20/07/2015 | 137 |
| 4816 | beam-bracings | 2046GF54B94 | GF5-94 | HEB320 | 1 | 814.37 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 17/07/2015 | 136 |
| 4817 | beam-bracings | 2046GF54B95 | GF5-95 | HEB320 | 1 | 989.32 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 4818 | beam-bracings | 2046GF54BR63 | GF5-63 | CHS168.3*10.0 | 1 | 251.41 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4819 | beam-bracings | 2046GF54BR64 | GF5-64 | CHS168.3*10.0 | 1 | 251.41 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 28/07/2015 | 140 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4820 | beam-bracings | 2046GF54BR65 | GF5-65 | CHS168.3*10.0 | 1 | 237.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 16/07/2015 | 134 |
| 4821 | beam-bracings | 2046GF54BR66 | GF5-66 | CHS168.3*10.0 | 1 | 237.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 28/07/2015 | 140 |
| 4822 | beam-bracings | 2046GF54LPL97 | GF5-97 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4823 | beam-bracings | 2046GF54LPL98 | GF5-98 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4824 | beam-bracings | 2046GF54LPL99 | GF5-99 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4825 | beam-bracings | 2046GF54LPL100 | GF5-100 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4826 | beam-bracings | 2046GF54LPL101 | GF5-101 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4827 | beam-bracings | 2046GF54LPL102 | GF5-102 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4828 | beam-bracings | 2046GF54LPL103 | GF5-103 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4829 | beam-bracings | 2046GF54LPL104 | GF5-104 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4830 | beam-bracings | 2046GF54LPL105 | GF5-105 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4831 | beam-bracings | 2046GF54LPL106 | GF5-106 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4832 | beam-bracings | 2046GF54LPL107 | GF5-107 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4833 | beam-bracings | 2046GF54LPL108 | GF5-108 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4834 | beam-bracings | 2046GF54LPL109 | GF5-109 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4835 | beam-bracings | 2046GF54LPL110 | GF5-110 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4836 | beam-bracings | 2046GF54LPL111 | GF5-111 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4837 | beam-bracings | 2046GF54LPL112 | GF5-112 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4838 | beam-bracings | 2046GF54LPL113 | GF5-113 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4839 | beam-bracings | 2046GF54LPL114 | GF5-114 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4840 | beam-bracings | 2046GF54LPL115 | GF5-115 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4841 | beam-bracings | 2046GF54LPL116 | GF5-116 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 18/06/2015 | 111 |
| 4842 | beam-bracings | 2046GF54LPL117 | GF5-117 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4843 | beam-bracings | 2046GF54LPL118 | GF5-118 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4844 | beam-bracings | 2046GF54LPL119 | GF5-119 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4845 | beam-bracings | 2046GF54LPL120 | GF5-120 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4846 | beam-bracings | 2046GF54LPL121 | GF5-121 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4847 | beam-bracings | 2046GF54LPL122 | GF5-122 | PL10*330 | 1 | 10.62 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4848 | beam-bracings | 2046GF54LPL123 | GF5-123 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4849 | beam-bracings | 2046GF54LPL124 | GF5-124 | PL10*200 | 1 | 5.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 4850 | beam-bracings | 2046GF54LPR93 | GF5-93 | HEB320 | 1 | 461.88 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 4851 | beam-bracings | 2046GF54V83 | GF5-83 | RHS300*100*10 | 1 | 1197.67 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 31/07/2015 | 143 |
| 4852 | beam-bracings | 2046GF54V90 | GF5-90 | PL30*904.5 | 1 | 287.88 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 4853 | beam-bracings | 2046GF54V91 | GF5-91 | PL30*904.5 | 1 | 287.88 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 4854 | beam-bracings | 2046HF54B62 | HF5-62 | SHS300*10 | 1 | 774.13 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 13/07/2015 | 132 |
| 4855 | beam-bracings | 2046HF54B88 | HF5-88 | SHS300*10 | 1 | 782.26 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 13/07/2015 | 132 |
| 4856 | beam-bracings | 2046HF54B89 | HF5-89 | SHS300*10 | 1 | 782.31 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 13/07/2015 | 132 |
| 4857 | beam-bracings | 2046HF54B92 | HF5-92 | HEA300 | 1 | 555.00 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 4858 | beam-bracings | 2046HF54B94 | HF5-94 | HEB320 | 1 | 814.37 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 4859 | beam-bracings | 2046HF54B95 | HF5-95 | HEB320 | 1 | 1012.28 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 4860 | beam-bracings | 2046HF54BR63 | HF5-63 | CHS168.3*10.0 | 1 | 251.41 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 16/07/2015 | 134 |
| 4861 | beam-bracings | 2046HF54BR64 | HF5-64 | CHS168.3*10.0 | 1 | 251.41 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 16/07/2015 | 134 |
| 4862 | beam-bracings | 2046HF54BR65 | HF5-65 | CHS168.3*10.0 | 1 | 237.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4863 | beam-bracings | 2046HF54BR66 | HF5-66 | CHS168.3*10.0 | 1 | 237.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4864 | beam-bracings | 2046HF54LPL97 | HF5-97 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4865 | beam-bracings | 2046HF54LPL98 | HF5-98 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4866 | beam-bracings | 2046HF54LPL99 | HF5-99 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 4867 | beam-bracings | 2046HF54LPL100 | HF5-100 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4868 | beam-bracings | 2046HF54LPL101 | HF5-101 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4869 | beam-bracings | 2046HF54LPL102 | HF5-102 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4870 | beam-bracings | 2046HF54LPL103 | HF5-103 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4871 | beam-bracings | 2046HF54LPL104 | HF5-104 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4872 | beam-bracings | 2046HF54LPL105 | HF5-105 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4873 | beam-bracings | 2046HF54LPL106 | HF5-106 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4874 | beam-bracings | 2046HF54LPL107 | HF5-107 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4875 | beam-bracings | 2046HF54LPL108 | HF5-108 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4876 | beam-bracings | 2046HF54LPL109 | HF5-109 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4877 | beam-bracings | 2046HF54LPL110 | HF5-110 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4878 | beam-bracings | 2046HF54LPL111 | HF5-111 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4879 | beam-bracings | 2046HF54LPL112 | HF5-112 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4880 | beam-bracings | 2046HF54LPL113 | HF5-113 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 03/07/2015 | 127 |
| 4881 | beam-bracings | 2046HF54LPL114 | HF5-114 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4882 | beam-bracings | 2046HF54LPL115 | HF5-115 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4883 | beam-bracings | 2046HF54LPL116 | HF5-116 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4884 | beam-bracings | 2046HF54LPL117 | HF5-117 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4885 | beam-bracings | 2046HF54LPL118 | HF5-118 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4886 | beam-bracings | 2046HF54LPL119 | HF5-119 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4887 | beam-bracings | 2046HF54LPL120 | HF5-120 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4888 | beam-bracings | 2046HF54LPL121 | HF5-121 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4889 | beam-bracings | 2046HF54LPL122 | HF5-122 | PL10*330 | 1 | 10.62 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 4890 | beam-bracings | 2046HF54LPL123 | HF5-123 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4891 | beam-bracings | 2046HF54LPL124 | HF5-124 | PL10*200 | 1 | 5.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4892 | beam-bracings | 2046HF54LPR93 | HF5-93 | HEB320 | 1 | 461.88 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 4893 | beam-bracings | 2046HF54V83 | HF5-83 | RHS300*100*10 | 1 | 1197.67 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4894 | beam-bracings | 2046HF54V90 | HF5-90 | PL30*904.5 | 1 | 287.88 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4895 | beam-bracings | 2046HF54V91 | HF5-91 | PL30*904.5 | 1 | 287.88 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4896 | beam-bracings | 2046IF54B62 | IF5-62 | SHS300*10 | 1 | 774.13 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4897 | beam-bracings | 2046IF54B88 | IF5-88 | SHS300*10 | 1 | 785.92 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 4898 | beam-bracings | 2046IF54B89 | IF5-89 | SHS300*10 | 1 | 789.36 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 4899 | beam-bracings | 2046IF54B92 | IF5-92 | HEA300 | 1 | 555.00 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 22/07/2015 | 138 |
| 4900 | beam-bracings | 2046IF54B94 | IF5-94 | HEB320 | 1 | 814.37 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 22/07/2015 | 138 |
| 4901 | beam-bracings | 2046IF54B95 | IF5-95 | HEB320 | 1 | 1023.98 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4902 | beam-bracings | 2046IF54BR63 | IF5-63 | CHS168.3*10.0 | 1 | 251.41 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4903 | beam-bracings | 2046IF54BR64 | IF5-64 | CHS168.3*10.0 | 1 | 251.41 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4904 | beam-bracings | 2046IF54BR65 | IF5-65 | CHS168.3*10.0 | 1 | 237.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4905 | beam-bracings | 2046IF54BR66 | IF5-66 | CHS168.3*10.0 | 1 | 237.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4906 | beam-bracings | 2046IF54LPL97 | IF5-97 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4907 | beam-bracings | 2046IF54LPL98 | IF5-98 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4908 | beam-bracings | 2046IF54LPL99 | IF5-99 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4909 | beam-bracings | 2046IF54LPL100 | IF5-100 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4910 | beam-bracings | 2046IF54LPL101 | IF5-101 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 18/06/2015 | 111 |
| 4911 | beam-bracings | 2046IF54LPL102 | IF5-102 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4912 | beam-bracings | 2046IF54LPL103 | IF5-103 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4913 | beam-bracings | 2046IF54LPL104 | IF5-104 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4914 | beam-bracings | 2046IF54LPL105 | IF5-105 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4915 | beam-bracings | 2046IF54LPL106 | IF5-106 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4916 | beam-bracings | 2046IF54LPL107 | IF5-107 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4917 | beam-bracings | 2046IF54LPL108 | IF5-108 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4918 | beam-bracings | 2046IF54LPL109 | IF5-109 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4919 | beam-bracings | 2046IF54LPL110 | IF5-110 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4920 | beam-bracings | 2046IF54LPL111 | IF5-111 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4921 | beam-bracings | 2046IF54LPL112 | IF5-112 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4922 | beam-bracings | 2046IF54LPL113 | IF5-113 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4923 | beam-bracings | 2046IF54LPL114 | IF5-114 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4924 | beam-bracings | 2046IF54LPL115 | IF5-115 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4925 | beam-bracings | 2046IF54LPL116 | IF5-116 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4926 | beam-bracings | 2046IF54LPL117 | IF5-117 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4927 | beam-bracings | 2046IF54LPL118 | IF5-118 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4928 | beam-bracings | 2046IF54LPL119 | IF5-119 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4929 | beam-bracings | 2046IF54LPL120 | IF5-120 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4930 | beam-bracings | 2046IF54LPL121 | IF5-121 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4931 | beam-bracings | 2046IF54LPL122 | IF5-122 | PL10*330 | 1 | 10.62 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4932 | beam-bracings | 2046IF54LPL123 | IF5-123 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4933 | beam-bracings | 2046IF54LPL124 | IF5-124 | PL10*200 | 1 | 5.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4934 | beam-bracings | 2046IF54LPR93 | IF5-93 | HEB320 | 1 | 461.88 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 4935 | beam-bracings | 2046IF54V83 | IF5-83 | RHS300*100*10 | 1 | 1197.67 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 31/07/2015 | 143 |
| 4936 | beam-bracings | 2046IF54V90 | IF5-90 | PL30*904.5 | 1 | 306.96 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4937 | beam-bracings | 2046IF54V91 | IF5-91 | PL30*904.5 | 1 | 287.88 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4938 | beam-bracings | 2046JF54B266 | JF5-266 | SHS300*10 | 1 | 954.40 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 148 |
| 4939 | beam-bracings | 2046JF54B300 | JF5-300 | SHS300*10 | 1 | 785.92 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4940 | beam-bracings | 2046JF54B301 | JF5-301 | SHS300*10 | 1 | 787.79 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4941 | beam-bracings | 2046JF54B310 | JF5-310 | HEA300 | 1 | 558.11 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4942 | beam-bracings | 2046JF54B312 | JF5-312 | HEB320 | 1 | 814.37 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 22/07/2015 | 138 |
| 4943 | beam-bracings | 2046JF54B313 | JF5-313 | HEB320 | 1 | 1062.94 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 4944 | beam-bracings | 2046JF54B314 | JF5-314 | HEB320 | 1 | 786.71 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 4945 | beam-bracings | 2046JF54BR267 | JF5-267 | CHS168.3*10.0 | 1 | 251.41 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4946 | beam-bracings | 2046JF54BR268 | JF5-268 | CHS168.3*10.0 | 1 | 251.41 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 4947 | beam-bracings | 2046JF54BR269 | JF5-269 | CHS168.3*10.0 | 1 | 237.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 16/07/2015 | 134 |
| 4948 | beam-bracings | 2046JF54BR270 | JF5-270 | CHS168.3*10.0 | 1 | 237.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 4949 | beam-bracings | 2046JF54BR304 | JF5-304 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 4950 | beam-bracings | 2046JF54BR305 | JF5-305 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 4951 | beam-bracings | 2046JF54BR308 | JF5-308 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 148 |
| 4952 | beam-bracings | 2046JF54BR309 | JF5-309 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 148 |
| 4953 | beam-bracings | 2046JF54FP306 | JF5-306 | HEA240 | 1 | 451.13 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 4954 | beam-bracings | 2046JF54FP307 | JF5-307 | HEA240 | 1 | 449.90 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 4955 | beam-bracings | 2046JF54LPL315 | JF5-315 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4956 | beam-bracings | 2046JF54LPL316 | JF5-316 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4957 | beam-bracings | 2046JF54LPL317 | JF5-317 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4958 | beam-bracings | 2046JF54LPL318 | JF5-318 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4959 | beam-bracings | 2046JF54LPL319 | JF5-319 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4960 | beam-bracings | 2046JF54LPL320 | JF5-320 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4961 | beam-bracings | 2046JF54LPL321 | JF5-321 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4962 | beam-bracings | 2046JF54LPL322 | JF5-322 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4963 | beam-bracings | 2046JF54LPL323 | JF5-323 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4964 | beam-bracings | 2046JF54LPL324 | JF5-324 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4965 | beam-bracings | 2046JF54LPL325 | JF5-325 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4966 | beam-bracings | 2046JF54LPL326 | JF5-326 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4967 | beam-bracings | 2046JF54LPL327 | JF5-327 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4968 | beam-bracings | 2046JF54LPL328 | JF5-328 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4969 | beam-bracings | 2046JF54LPL329 | JF5-329 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4970 | beam-bracings | 2046JF54LPL330 | JF5-330 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4971 | beam-bracings | 2046JF54LPL331 | JF5-331 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4972 | beam-bracings | 2046JF54LPL332 | JF5-332 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 4973 | beam-bracings | 2046JF54LPL333 | JF5-333 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4974 | beam-bracings | 2046JF54LPL334 | JF5-334 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4975 | beam-bracings | 2046JF54LPL335 | JF5-335 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4976 | beam-bracings | 2046JF54LPL336 | JF5-336 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4977 | beam-bracings | 2046JF54LPL337 | JF5-337 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4978 | beam-bracings | 2046JF54LPL338 | JF5-338 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4979 | beam-bracings | 2046JF54LPL339 | JF5-339 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4980 | beam-bracings | 2046JF54LPL340 | JF5-340 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4981 | beam-bracings | 2046JF54LPL341 | JF5-341 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4982 | beam-bracings | 2046JF54LPL342 | JF5-342 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4983 | beam-bracings | 2046JF54LPL343 | JF5-343 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4984 | beam-bracings | 2046JF54LPL344 | JF5-344 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4985 | beam-bracings | 2046JF54LPL345 | JF5-345 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4986 | beam-bracings | 2046JF54LPL346 | JF5-346 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4987 | beam-bracings | 2046JF54LPL347 | JF5-347 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4988 | beam-bracings | 2046JF54LPL348 | JF5-348 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4989 | beam-bracings | 2046JF54LPL349 | JF5-349 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4990 | beam-bracings | 2046JF54LPL350 | JF5-350 | PL10*250 | 1 | 8.44 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4991 | beam-bracings | 2046JF54LPL351 | JF5-351 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4992 | beam-bracings | 2046JF54LPL352 | JF5-352 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4993 | beam-bracings | 2046JF54LPL353 | JF5-353 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4994 | beam-bracings | 2046JF54LPL354 | JF5-354 | PL10*330 | 1 | 10.62 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4995 | beam-bracings | 2046JF54LPL355 | JF5-355 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4996 | beam-bracings | 2046JF54LPL356 | JF5-356 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4997 | beam-bracings | 2046JF54LPL357 | JF5-357 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4998 | beam-bracings | 2046JF54LPL358 | JF5-358 | PL10*200 | 1 | 5.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 4999 | beam-bracings | 2046JF54LPR311 | JF5-311 | HEB320 | 1 | 461.88 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 5000 | beam-bracings | 2046JF54TR295 | JF5-295 | RHS300*100*10 | 1 | 1197.67 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 13/07/2015 | 132 |
| 5001 | beam-bracings | 2046JF54V302 | JF5-302 | PL30*904.5 | 1 | 271.48 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5002 | beam-bracings | 2046JF54V303 | JF5-303 | PL30*904.5 | 1 | 238.50 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5003 | beam-bracings | 2046BF51B64 | BF5-64 | HEA300 | 1 | 555.00 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 19/06/2015 | 111 |
| 5004 | beam-bracings | 2046BF51B66 | BF5-66 | HEB320 | 1 | 814.37 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 17/04/2015 | 71 |
| 5005 | beam-bracings | 2046BF51B67 | BF5-67 | HEB320 | 1 | 1012.28 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 19/06/2015 | 114 |
| 5006 | beam-bracings | 2046BF51B68 | BF5-68 | HEB320 | 1 | 859.98 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 20/05/2015 | 87 |
| 5007 | beam-bracings | 2046BF51LPL136 | BF5-136 | PL10*250 | 1 | 6.87 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 09/04/2015 | 64 |
| 5008 | beam-bracings | 2046BF51LPL137 | BF5-137 | PL10*250 | 1 | 6.87 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 09/04/2015 | 64 |
| 5009 | beam-bracings | 2046BF51LPL138 | BF5-138 | PL10*250 | 1 | 6.87 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 09/04/2015 | 64 |
| 5010 | beam-bracings | 2046BF51LPL139 | BF5-139 | PL10*250 | 1 | 6.87 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 09/04/2015 | 64 |
| 5011 | beam-bracings | 2046BF51LPR65 | BF5-65 | HEB320 | 1 | 930.07 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 27/04/2015 | 74 |
| 5012 | beam-bracings | 2046BF51V50 | BF5-50 | PL30*904.5 | 1 | 287.88 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 04/05/2015 | 76 |
| 5013 | beam-bracings | 2046BF51V51 | BF5-51 | PL30*904.5 | 1 | 287.88 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 14/05/2015 | 84 |
| 5014 | beam-bracings | 2046CF51B64 | CF5-64 | HEA300 | 1 | 555.00 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 17/04/2015 | 71 |
| 5015 | beam-bracings | 2046CF51B66 | CF5-66 | HEB320 | 1 | 814.37 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 17/04/2015 | 71 |
| 5016 | beam-bracings | 2046CF51B67 | CF5-67 | HEB320 | 1 | 989.32 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 20/05/2015 | 87 |
| 5017 | beam-bracings | 2046CF51B68 | CF5-68 | HEB320 | 1 | 859.98 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 08/07/2015 | 130 |
| 5018 | beam-bracings | 2046CF51LPR65 | CF5-65 | HEB320 | 1 | 930.07 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 27/04/2015 | 74 |
| 5019 | beam-bracings | 2046CF51V50 | CF5-50 | PL30*904.5 | 1 | 287.88 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 04/05/2015 | 76 |
| 5020 | beam-bracings | 2046CF51V51 | CF5-51 | PL30*904.5 | 1 | 287.88 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/03/2015 | 04/05/2015 | 76 |
| 5021 | beam-bracings | 2046DF51B49 | DF5-49 | HEA300 | 1 | 555.00 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 17/04/2015 | 71 |
| 5022 | beam-bracings | 2046DF51B51 | DF5-51 | HEB320 | 1 | 814.37 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/04/2015 | 73 |
| 5023 | beam-bracings | 2046DF51B52 | DF5-52 | HEB320 | 1 | 1012.28 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/05/2015 | 87 |
| 5024 | beam-bracings | 2046DF51B53 | DF5-53 | HEB320 | 1 | 859.98 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/05/2015 | 87 |
| 5025 | beam-bracings | 2046DF51LPR50 | DF5-50 | HEB320 | 1 | 930.07 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 01/09/2015 | 157 |
| 5026 | beam-bracings | 2046DF51V47 | DF5-47 | PL30*904.5 | 1 | 287.88 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 04/05/2015 | 76 |
| 5027 | beam-bracings | 2046DF51V48 | DF5-48 | PL30*904.5 | 1 | 287.88 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 14/05/2015 | 84 |
| 5028 | beam-bracings | 2046EF51B49 | EF5-49 | HEA300 | 1 | 555.00 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/04/2015 | 73 |
| 5029 | beam-bracings | 2046EF51B51 | EF5-51 | HEB320 | 1 | 814.37 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/04/2015 | 73 |
| 5030 | beam-bracings | 2046EF51B52 | EF5-52 | HEB320 | 1 | 1012.28 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/05/2015 | 87 |
| 5031 | beam-bracings | 2046EF51B53 | EF5-53 | HEB320 | 1 | 859.98 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 27/07/2015 | 155 |
| 5032 | beam-bracings | 2046EF51LPR50 | EF5-50 | HEB320 | 1 | 930.07 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 27/04/2015 | 74 |
| 5033 | beam-bracings | 2046EF51V47 | EF5-47 | PL30*904.5 | 1 | 287.88 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 04/05/2015 | 76 |
| 5034 | beam-bracings | 2046EF51V48 | EF5-48 | PL30*904.5 | 1 | 287.88 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 04/05/2015 | 76 |
| 5035 | beam-bracings | 2046FF51B49 | FF5-49 | HEA300 | 1 | 555.00 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 17/04/2015 | 71 |
| 5036 | beam-bracings | 2046FF51B51 | FF5-51 | HEB320 | 1 | 814.37 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 17/04/2015 | 71 |
| 5037 | beam-bracings | 2046FF51B52 | FF5-52 | HEB320 | 1 | 989.32 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 20/05/2015 | 87 |
| 5038 | beam-bracings | 2046FF51B53 | FF5-53 | HEB320 | 1 | 859.98 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 19/06/2015 | 111 |
| 5039 | beam-bracings | 2046FF51LPR50 | FF5-50 | HEB320 | 1 | 930.07 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 27/04/2015 | 74 |
| 5040 | beam-bracings | 2046FF51V47 | FF5-47 | PL30*904.5 | 1 | 287.88 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 14/05/2015 | 84 |
| 5041 | beam-bracings | 2046FF51V48 | FF5-48 | PL30*904.5 | 1 | 287.88 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 10/03/2015 | 14/05/2015 | 84 |
| 5042 | beam-bracings | 2046GF51B49 | GF5-49 | HEA300 | 1 | 555.00 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 20/05/2015 | 87 |
| 5043 | beam-bracings | 2046GF51B51 | GF5-51 | HEB320 | 1 | 814.37 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 20/05/2015 | 87 |
| 5044 | beam-bracings | 2046GF51B52 | GF5-52 | HEB320 | 1 | 989.32 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 20/05/2015 | 87 |
| 5045 | beam-bracings | 2046GF51B53 | GF5-53 | HEB320 | 1 | 859.98 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 20/05/2015 | 87 |
| 5046 | beam-bracings | 2046GF51LPR50 | GF5-50 | HEB320 | 1 | 930.07 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 27/04/2015 | 74 |
| 5047 | beam-bracings | 2046GF51V47 | GF5-47 | PL30*904.5 | 1 | 287.88 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 14/05/2015 | 84 |
| 5048 | beam-bracings | 2046GF51V48 | GF5-48 | PL30*904.5 | 1 | 287.88 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 14/05/2015 | 84 |
| 5049 | beam-bracings | 2046HF51B49 | HF5-49 | HEA300 | 1 | 555.00 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 20/05/2015 | 87 |
| 5050 | beam-bracings | 2046HF51B51 | HF5-51 | HEB320 | 1 | 814.37 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 20/05/2015 | 87 |
| 5051 | beam-bracings | 2046HF51B52 | HF5-52 | HEB320 | 1 | 1012.28 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 01/08/2015 | 166 |
| 5052 | beam-bracings | 2046HF51B53 | HF5-53 | HEB320 | 1 | 859.98 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 08/07/2015 | 130 |
| 5053 | beam-bracings | 2046HF51LPR50 | HF5-50 | HEB320 | 1 | 930.07 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 27/04/2015 | 74 |
| 5054 | beam-bracings | 2046HF51V47 | HF5-47 | PL30*904.5 | 1 | 287.88 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 14/05/2015 | 84 |
| 5055 | beam-bracings | 2046HF51V48 | HF5-48 | PL30*904.5 | 1 | 287.88 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 19/03/2015 | 14/05/2015 | 84 |
| 5056 | beam-bracings | 2046IF51B49 | IF5-49 | HEA300 | 1 | 555.00 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 20/05/2015 | 87 |
| 5057 | beam-bracings | 2046IF51B51 | IF5-51 | HEB320 | 1 | 814.37 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 20/05/2015 | 87 |
| 5058 | beam-bracings | 2046IF51B52 | IF5-52 | HEB320 | 1 | 1023.81 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 15/06/2015 | 109 |
| 5059 | beam-bracings | 2046IF51B53 | IF5-53 | HEB320 | 1 | 881.84 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 22/05/2015 | 89 |
| 5060 | beam-bracings | 2046IF51LPR50 | IF5-50 | HEB320 | 1 | 930.07 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 27/04/2015 | 74 |
| 5061 | beam-bracings | 2046IF51V47 | IF5-47 | PL30*904.5 | 1 | 306.96 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 14/05/2015 | 84 |
| 5062 | beam-bracings | 2046IF51V48 | IF5-48 | PL30*904.5 | 1 | 287.88 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/03/2015 | 14/05/2015 | 84 |
| 5063 | beam-bracings | 2046BF54B122 | BF5-122 | HEA300 | 1 | 555.00 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 22/07/2015 | 138 |
| 5064 | beam-bracings | 2046BF54B124 | BF5-124 | HEB320 | 1 | 814.37 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 17/07/2015 | 136 |
| 5065 | beam-bracings | 2046BF54B125 | BF5-125 | HEB320 | 1 | 1012.28 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 24/07/2015 | 139 |
| 5066 | beam-bracings | 2046BF54B126 | BF5-126 | HEB320 | 1 | 859.98 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 17/07/2015 | 136 |
| 5067 | beam-bracings | 2046BF54LPL140 | BF5-140 | PL10*250 | 1 | 6.87 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 18/06/2015 | 111 |
| 5068 | beam-bracings | 2046BF54LPL141 | BF5-141 | PL10*250 | 1 | 6.87 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 18/06/2015 | 111 |
| 5069 | beam-bracings | 2046BF54LPL142 | BF5-142 | PL10*250 | 1 | 6.87 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 18/06/2015 | 111 |
| 5070 | beam-bracings | 2046BF54LPL143 | BF5-143 | PL10*250 | 1 | 6.87 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 18/06/2015 | 111 |
| 5071 | beam-bracings | 2046BF54LPR123 | BF5-123 | HEB320 | 1 | 461.88 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 19/06/2015 | 114 |
| 5072 | beam-bracings | 2046BF54V108 | BF5-108 | PL30*904.5 | 1 | 287.88 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 24/07/2015 | 139 |
| 5073 | beam-bracings | 2046BF54V109 | BF5-109 | PL30*904.5 | 1 | 287.88 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 10/07/2015 | 131 |
| 5074 | beam-bracings | 2046CF54B122 | CF5-122 | HEA300 | 1 | 555.00 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 135 |
| 5075 | beam-bracings | 2046CF54B124 | CF5-124 | HEB320 | 1 | 814.37 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 16/07/2015 | 134 |
| 5076 | beam-bracings | 2046CF54B125 | CF5-125 | HEB320 | 1 | 989.32 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 136 |
| 5077 | beam-bracings | 2046CF54B126 | CF5-126 | HEB320 | 1 | 859.98 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 136 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5078 | beam-bracings | 2046CF54LPL139 | CF5-139 | PL10*250 | 1 | 6.87 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 18/06/2015 | 111 |
| 5079 | beam-bracings | 2046CF54LPL140 | CF5-140 | PL10*250 | 1 | 6.87 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 5080 | beam-bracings | 2046CF54LPL141 | CF5-141 | PL10*250 | 1 | 6.87 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 18/06/2015 | 111 |
| 5081 | beam-bracings | 2046CF54LPL142 | CF5-142 | PL10*250 | 1 | 6.87 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 18/06/2015 | 111 |
| 5082 | beam-bracings | 2046CF54LPR123 | CF5-123 | HEB320 | 1 | 461.88 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 22/07/2015 | 138 |
| 5083 | beam-bracings | 2046CF54V108 | CF5-108 | PL30*904.5 | 1 | 287.88 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5084 | beam-bracings | 2046CF54V109 | CF5-109 | PL30*904.5 | 1 | 287.88 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 10/07/2015 | 131 |
| 5085 | beam-bracings | 2046DF54B92 | DF5-92 | HEA300 | 1 | 555.00 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/07/2015 | 136 |
| 5086 | beam-bracings | 2046DF54B94 | DF5-94 | HEB320 | 1 | 814.37 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 5087 | beam-bracings | 2046DF54B95 | DF5-95 | HEB320 | 1 | 1012.28 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 5088 | beam-bracings | 2046DF54B96 | DF5-96 | HEB320 | 1 | 859.98 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 5089 | beam-bracings | 2046DF54LPR93 | DF5-93 | HEB320 | 1 | 461.88 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 28/07/2015 | 140 |
| 5090 | beam-bracings | 2046DF54V90 | DF5-90 | PL30*904.5 | 1 | 287.88 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 10/07/2015 | 131 |
| 5091 | beam-bracings | 2046DF54V91 | DF5-91 | PL30*904.5 | 1 | 287.88 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 10/07/2015 | 131 |
| 5092 | beam-bracings | 2046EF54B96 | EF5-96 | HEB320 | 1 | 859.98 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 20/07/2015 | 137 |
| 5093 | beam-bracings | 2046FF54B96 | FF5-96 | HEB320 | 1 | 859.98 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 20/07/2015 | 137 |
| 5094 | beam-bracings | 2046GF54B96 | GF5-96 | HEB320 | 1 | 859.98 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 20/07/2015 | 137 |
| 5095 | beam-bracings | 2046HF54B96 | HF5-96 | HEB320 | 1 | 859.98 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 5096 | beam-bracings | 2046IF54B96 | IF5-96 | HEB320 | 1 | 881.84 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 5097 | beam-bracings | 2046EF54LPL134 | EF5-134 | PL10*200 | 1 | 12.40 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5098 | beam-bracings | 2046EF54LPL135 | EF5-135 | PL10*200 | 1 | 12.40 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5099 | beam-bracings | 2046EF54LPL137 | EF5-137 | PL20*300 | 1 | 41.92 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5100 | beam-bracings | 2046EF54LPL138 | EF5-138 | PL20*300 | 1 | 41.92 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5101 | beam-bracings | 2046EF54LPL139 | EF5-139 | PL25*110 | 1 | 19.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 31/07/2015 | 143 |
| 5102 | beam-bracings | 2046EF54LPL140 | EF5-140 | PL25*110 | 1 | 19.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5103 | beam-bracings | 2046EF54LPL141 | EF5-141 | PL25*110 | 1 | 19.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5104 | beam-bracings | 2046EF54LPL142 | EF5-142 | PL25*110 | 1 | 19.21 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5105 | beam-bracings | 2046EF54LPR136 | EF5-136 | HEB320 | 1 | 461.88 | E | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 08/07/2015 | 130 |
| 5106 | beam-bracings | 2046FF54LPL134 | FF5-134 | PL10*200 | 1 | 12.40 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5107 | beam-bracings | 2046FF54LPL135 | FF5-135 | PL10*200 | 1 | 12.40 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5108 | beam-bracings | 2046FF54LPL137 | FF5-137 | PL20*300 | 1 | 41.92 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5109 | beam-bracings | 2046FF54LPL138 | FF5-138 | PL20*300 | 1 | 41.92 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5110 | beam-bracings | 2046FF54LPL139 | FF5-139 | PL25*110 | 1 | 19.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5111 | beam-bracings | 2046FF54LPL140 | FF5-140 | PL25*110 | 1 | 19.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5112 | beam-bracings | 2046FF54LPL141 | FF5-141 | PL25*110 | 1 | 19.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5113 | beam-bracings | 2046FF54LPL142 | FF5-142 | PL25*110 | 1 | 19.21 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5114 | beam-bracings | 2046FF54LPR136 | FF5-136 | HEB320 | 1 | 461.88 | F | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 08/07/2015 | 130 |
| 5115 | beam-bracings | 2046GF54LPL134 | GF5-134 | PL10*200 | 1 | 12.40 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5116 | beam-bracings | 2046GF54LPL135 | GF5-135 | PL10*200 | 1 | 12.40 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5117 | beam-bracings | 2046GF54LPL137 | GF5-137 | PL20*300 | 1 | 41.92 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5118 | beam-bracings | 2046GF54LPL138 | GF5-138 | PL20*300 | 1 | 41.92 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 01/08/2015 | 166 |
| 5119 | beam-bracings | 2046GF54LPL139 | GF5-139 | PL25*110 | 1 | 19.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5120 | beam-bracings | 2046GF54LPL140 | GF5-140 | PL25*110 | 1 | 19.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 19/06/2015 | 112 |
| 5121 | beam-bracings | 2046GF54LPL141 | GF5-141 | PL25*110 | 1 | 19.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5122 | beam-bracings | 2046GF54LPL142 | GF5-142 | PL25*110 | 1 | 19.21 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5123 | beam-bracings | 2046GF54LPR136 | GF5-136 | HEB320 | 1 | 461.88 | G | 5 | 13.1-13.2 | Without Intumescent | Portugal | 20/05/2015 | 24/07/2015 | 139 |
| 5124 | beam-bracings | 2046BF54LPL153 | BF5-153 | PL10*200 | 1 | 12.40 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 18/06/2015 | 111 |
| 5125 | beam-bracings | 2046BF54LPL154 | BF5-154 | PL10*200 | 1 | 12.40 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 18/06/2015 | 111 |
| 5126 | beam-bracings | 2046BF54LPL156 | BF5-156 | PL20*300 | 1 | 41.92 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 19/06/2015 | 112 |
| 5127 | beam-bracings | 2046BF54LPL157 | BF5-157 | PL20*300 | 1 | 41.92 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 19/06/2015 | 112 |
| 5128 | beam-bracings | 2046BF54LPL158 | BF5-158 | PL25*110 | 1 | 19.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 24/07/2015 | 139 |
| 5129 | beam-bracings | 2046BF54LPL159 | BF5-159 | PL25*110 | 1 | 19.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 24/07/2015 | 139 |
| 5130 | beam-bracings | 2046BF54LPL160 | BF5-160 | PL25*110 | 1 | 19.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 24/07/2015 | 139 |
| 5131 | beam-bracings | 2046BF54LPL161 | BF5-161 | PL25*110 | 1 | 19.21 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 24/07/2015 | 139 |
| 5132 | beam-bracings | 2046BF54LPR155 | BF5-155 | HEB320 | 1 | 461.88 | B | 5 | 13.1-13.2 | Without Intumescent | Portugal | 21/05/2015 | 19/06/2015 | 114 |
| 5133 | beam-bracings | 2046CF54LPL152 | CF5-152 | PL10*200 | 1 | 12.40 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5134 | beam-bracings | 2046CF54LPL153 | CF5-153 | PL10*200 | 1 | 12.40 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5135 | beam-bracings | 2046CF54LPL155 | CF5-155 | PL20*300 | 1 | 41.92 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5136 | beam-bracings | 2046CF54LPL156 | CF5-156 | PL20*300 | 1 | 41.92 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5137 | beam-bracings | 2046CF54LPL157 | CF5-157 | PL25*110 | 1 | 19.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5138 | beam-bracings | 2046CF54LPL158 | CF5-158 | PL25*110 | 1 | 19.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5139 | beam-bracings | 2046CF54LPL159 | CF5-159 | PL25*110 | 1 | 19.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5140 | beam-bracings | 2046CF54LPL160 | CF5-160 | PL25*110 | 1 | 19.21 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5141 | beam-bracings | 2046CF54LPR154 | CF5-154 | HEB320 | 1 | 461.88 | C | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5142 | beam-bracings | 2046DF54LPL114 | DF5-114 | PL10*200 | 1 | 12.40 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5143 | beam-bracings | 2046DF54LPL115 | DF5-115 | PL10*200 | 1 | 12.40 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5144 | beam-bracings | 2046DF54LPL117 | DF5-117 | PL20*300 | 1 | 41.92 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5145 | beam-bracings | 2046DF54LPL118 | DF5-118 | PL20*300 | 1 | 41.92 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5146 | beam-bracings | 2046DF54LPL119 | DF5-119 | PL25*110 | 1 | 19.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5147 | beam-bracings | 2046DF54LPL120 | DF5-120 | PL25*110 | 1 | 19.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5148 | beam-bracings | 2046DF54LPL121 | DF5-121 | PL25*110 | 1 | 19.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5149 | beam-bracings | 2046DF54LPL122 | DF5-122 | PL25*110 | 1 | 19.21 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5150 | beam-bracings | 2046DF54LPR116 | DF5-116 | HEB320 | 1 | 461.88 | D | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5151 | beam-bracings | 2046HF54LPL134 | HF5-134 | PL10*200 | 1 | 12.40 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5152 | beam-bracings | 2046HF54LPL135 | HF5-135 | PL10*200 | 1 | 12.40 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5153 | beam-bracings | 2046HF54LPL137 | HF5-137 | PL20*300 | 1 | 41.92 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5154 | beam-bracings | 2046HF54LPL138 | HF5-138 | PL20*300 | 1 | 41.92 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5155 | beam-bracings | 2046HF54LPL139 | HF5-139 | PL25*110 | 1 | 19.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 31/07/2015 | 143 |
| 5156 | beam-bracings | 2046HF54LPL140 | HF5-140 | PL25*110 | 1 | 19.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 31/07/2015 | 143 |
| 5157 | beam-bracings | 2046HF54LPL141 | HF5-141 | PL25*110 | 1 | 19.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 31/07/2015 | 143 |
| 5158 | beam-bracings | 2046HF54LPL142 | HF5-142 | PL25*110 | 1 | 19.21 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 147 |
| 5159 | beam-bracings | 2046HF54LPR136 | HF5-136 | HEB320 | 1 | 461.88 | H | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 07/08/2015 | 148 |
| 5160 | beam-bracings | 2046IF54LPL134 | IF5-134 | PL10*200 | 1 | 12.40 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 5161 | beam-bracings | 2046IF54LPL135 | IF5-135 | PL10*200 | 1 | 12.40 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 5162 | beam-bracings | 2046IF54LPL137 | IF5-137 | PL20*300 | 1 | 41.92 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5163 | beam-bracings | 2046IF54LPL138 | IF5-138 | PL20*300 | 1 | 41.92 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5164 | beam-bracings | 2046IF54LPL139 | IF5-139 | PL25*110 | 1 | 19.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5165 | beam-bracings | 2046IF54LPL140 | IF5-140 | PL25*110 | 1 | 19.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 31/07/2015 | 143 |
| 5166 | beam-bracings | 2046IF54LPL141 | IF5-141 | PL25*110 | 1 | 19.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5167 | beam-bracings | 2046IF54LPL142 | IF5-142 | PL25*110 | 1 | 19.21 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 31/07/2015 | 143 |
| 5168 | beam-bracings | 2046IF54LPR136 | IF5-136 | HEB320 | 1 | 461.88 | I | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 20/07/2015 | 137 |
| 5169 | beam-bracings | 2046JF54LPL370 | JF5-370 | PL10*200 | 1 | 12.40 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 5170 | beam-bracings | 2046JF54LPL371 | JF5-371 | PL10*200 | 1 | 12.40 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 01/08/2015 | 166 |
| 5171 | beam-bracings | 2046JF54LPL373 | JF5-373 | PL20*300 | 1 | 41.92 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5172 | beam-bracings | 2046JF54LPL374 | JF5-374 | PL20*300 | 1 | 41.92 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 19/06/2015 | 112 |
| 5173 | beam-bracings | 2046JF54LPL375 | JF5-375 | PL25*110 | 1 | 19.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5174 | beam-bracings | 2046JF54LPL376 | JF5-376 | PL25*110 | 1 | 19.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5175 | beam-bracings | 2046JF54LPL377 | JF5-377 | PL25*110 | 1 | 19.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5176 | beam-bracings | 2046JF54LPL378 | JF5-378 | PL25*110 | 1 | 19.21 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 24/07/2015 | 139 |
| 5177 | beam-bracings | 2046JF54LPR372 | JF5-372 | HEB320 | 1 | 461.88 | J | 5 | 13.1-13.2 | Without Intumescent | Portugal | 26/05/2015 | 17/08/2015 | 166 |
| 5178 | beam-bracings | 2046AF51B96 | AF5-96 | HEA300 | 1 | 555.00 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 135 |
| 5179 | beam-bracings | 2046AF51B97 | AF5-97 | HEA300 | 1 | 565.66 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 136 |
| 5180 | beam-bracings | 2046AF51B100 | AF5-100 | HEB320 | 1 | 814.37 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 22/07/2015 | 138 |
| 5181 | beam-bracings | 2046AF51B101 | AF5-101 | HEB320 | 1 | 1023.81 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 22/07/2015 | 138 |
| 5182 | beam-bracings | 2046AF51B102 | AF5-102 | HEB320 | 1 | 814.37 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 22/07/2015 | 138 |
| 5183 | beam-bracings | 2046AF51B103 | AF5-103 | HEB320 | 1 | 981.98 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 28/07/2015 | 140 |
| 5184 | beam-bracings | 2046AF51B104 | AF5-104 | HEB320 | 1 | 882.48 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 07/08/2015 | 147 |
| 5185 | beam-bracings | 2046AF51B105 | AF5-105 | HEB320 | 1 | 809.32 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 136 |
| 5186 | beam-bracings | 2046AF51LPL207 | AF5-207 | PL10*250 | 1 | 6.87 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5187 | beam-bracings | 2046AF51LPL208 | AF5-208 | PL10*250 | 1 | 6.87 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5188 | beam-bracings | 2046AF51LPL209 | AF5-209 | PL10*250 | 1 | 6.87 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5189 | beam-bracings | 2046AF51LPL210 | AF5-210 | PL10*250 | 1 | 6.87 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5190 | beam-bracings | 2046AF51LPL211 | AF5-211 | PL10*200 | 1 | 12.40 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5191 | beam-bracings | 2046AF51LPL212 | AF5-212 | PL10*200 | 1 | 12.40 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5192 | beam-bracings | 2046AF51LPL213 | AF5-213 | PL10*200 | 1 | 12.40 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5193 | beam-bracings | 2046AF51LPL214 | AF5-214 | PL10*200 | 1 | 12.40 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5194 | beam-bracings | 2046AF51LPL217 | AF5-217 | PL20*300 | 1 | 41.92 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 03/07/2015 | 128 |
| 5195 | beam-bracings | 2046AF51LPL218 | AF5-218 | PL20*300 | 1 | 41.92 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 03/07/2015 | 128 |
| 5196 | beam-bracings | 2046AF51LPL219 | AF5-219 | PL20*300 | 1 | 41.92 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 03/07/2015 | 128 |
| 5197 | beam-bracings | 2046AF51LPL220 | AF5-220 | PL20*300 | 1 | 41.92 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 03/07/2015 | 128 |
| 5198 | beam-bracings | 2046AF51LPL221 | AF5-221 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5199 | beam-bracings | 2046AF51LPL222 | AF5-222 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5200 | beam-bracings | 2046AF51LPL223 | AF5-223 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5201 | beam-bracings | 2046AF51LPL224 | AF5-224 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5202 | beam-bracings | 2046AF51LPL225 | AF5-225 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5203 | beam-bracings | 2046AF51LPL226 | AF5-226 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5204 | beam-bracings | 2046AF51LPL227 | AF5-227 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5205 | beam-bracings | 2046AF51LPL228 | AF5-228 | PL25*110 | 1 | 19.21 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5206 | beam-bracings | 2046AF51LPR98 | AF5-98 | HEB320 | 1 | 461.88 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 28/07/2015 | 140 |
| 5207 | beam-bracings | 2046AF51LPR99 | AF5-99 | HEB320 | 1 | 461.88 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5208 | beam-bracings | 2046AF51LPR215 | AF5-215 | HEB320 | 1 | 461.88 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 20/07/2015 | 137 |
| 5209 | beam-bracings | 2046AF51LPR216 | AF5-216 | HEB320 | 1 | 461.88 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 20/07/2015 | 137 |
| 5210 | beam-bracings | 2046AF51V76 | AF5-76 | PL30*904.5 | 1 | 287.88 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 10/07/2015 | 131 |
| 5211 | beam-bracings | 2046AF51V77 | AF5-77 | PL30*904.5 | 1 | 306.96 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5212 | beam-bracings | 2046AF51V78 | AF5-78 | PL30*904.5 | 1 | 306.96 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5213 | beam-bracings | 2046AF51V79 | AF5-79 | PL30*904.5 | 1 | 279.37 | A | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5214 | beam-bracings | 2046JF51B63 | JF5-63 | HEA300 | 1 | 558.11 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 20/07/2015 | 137 |
| 5215 | beam-bracings | 2046JF51B65 | JF5-65 | HEB320 | 1 | 814.37 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 22/07/2015 | 138 |
| 5216 | beam-bracings | 2046JF51B66 | JF5-66 | HEB320 | 1 | 1062.94 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 07/08/2015 | 147 |
| 5217 | beam-bracings | 2046JF51B67 | JF5-67 | HEB320 | 1 | 786.71 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 07/08/2015 | 148 |
| 5218 | beam-bracings | 2046JF51LPL359 | JF5-359 | PL10*200 | 1 | 12.40 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 03/07/2015 | 128 |
| 5219 | beam-bracings | 2046JF51LPL360 | JF5-360 | PL10*200 | 1 | 12.40 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 03/07/2015 | 128 |
| 5220 | beam-bracings | 2046JF51LPL362 | JF5-362 | PL20*300 | 1 | 41.92 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5221 | beam-bracings | 2046JF51LPL363 | JF5-363 | PL20*300 | 1 | 41.92 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5222 | beam-bracings | 2046JF51LPL364 | JF5-364 | PL25*110 | 1 | 19.21 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5223 | beam-bracings | 2046JF51LPL365 | JF5-365 | PL25*110 | 1 | 19.21 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5224 | beam-bracings | 2046JF51LPL366 | JF5-366 | PL25*110 | 1 | 19.21 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5225 | beam-bracings | 2046JF51LPL367 | JF5-367 | PL25*110 | 1 | 19.21 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5226 | beam-bracings | 2046JF51LPR64 | JF5-64 | HEB320 | 1 | 461.88 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5227 | beam-bracings | 2046JF51LPR361 | JF5-361 | HEB320 | 1 | 461.88 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5228 | beam-bracings | 2046JF51V368 | JF5-368 | PL25*904.5 | 1 | 271.48 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5229 | beam-bracings | 2046JF51V369 | JF5-369 | PL25*904.5 | 1 | 238.50 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5232 | beam-bracings | 2046AF41TR90 | AF4-90 | HEB340 | 1 | 7499.32 | A | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 25/09/2015 | 165 |
| 5233 | beam-bracings | 2046BF41TR56 | BF4-56 | HEA400 | 1 | 6168.51 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 18/09/2015 | 163 |
| 5234 | beam-bracings | 2046BF41LPL301 | BF4-301 | PL10*210 | 1 | 6.76 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 128 |
| 5235 | beam-bracings | 2046BF41LPL302 | BF4-302 | PL10*210 | 1 | 6.76 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 128 |
| 5236 | beam-bracings | 2046BF41LPL303 | BF4-303 | PL10*250 | 1 | 8.05 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 128 |
| 5237 | beam-bracings | 2046BF41LPL304 | BF4-304 | PL10*250 | 1 | 8.05 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 128 |
| 5238 | beam-bracings | 2046BF41LPL305 | BF4-305 | PL10*250 | 1 | 8.05 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 128 |
| 5239 | beam-bracings | 2046BF41LPL306 | BF4-306 | PL10*250 | 1 | 8.05 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 128 |
| 5240 | beam-bracings | 2046BF41LPL307 | BF4-307 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 17/07/2015 | 136 |
| 5241 | beam-bracings | 2046BF41LPL308 | BF4-308 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5242 | beam-bracings | 2046BF41LPL309 | BF4-309 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5243 | beam-bracings | 2046BF41LPL310 | BF4-310 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5244 | beam-bracings | 2046BF41LPL311 | BF4-311 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 17/07/2015 | 136 |
| 5245 | beam-bracings | 2046BF41LPL312 | BF4-312 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 17/07/2015 | 136 |
| 5246 | beam-bracings | 2046BF41LPL313 | BF4-313 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5247 | beam-bracings | 2046BF41LPL314 | BF4-314 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5248 | beam-bracings | 2046BF41LPL315 | BF4-315 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5249 | beam-bracings | 2046BF41LPL316 | BF4-316 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5250 | beam-bracings | 2046BF41LPL317 | BF4-317 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5251 | beam-bracings | 2046BF41LPL318 | BF4-318 | PL15*110 | 1 | 5.31 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5252 | beam-bracings | 2046BF41LPL319 | BF4-319 | PL15*300 | 1 | 14.48 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5253 | beam-bracings | 2046BF41LPL320 | BF4-320 | PL15*300 | 1 | 14.48 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5254 | beam-bracings | 2046BF41LPL321 | BF4-321 | PL15*300 | 1 | 14.48 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5255 | beam-bracings | 2046BF41LPL322 | BF4-322 | PL15*300 | 1 | 14.48 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5256 | beam-bracings | 2046BF41LPL323 | BF4-323 | PL15*300 | 1 | 14.48 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5257 | beam-bracings | 2046BF41LPL324 | BF4-324 | PL15*300 | 1 | 14.48 | B | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5258 | beam-bracings | 2046CF41LPL302 | CF4-302 | PL10*210 | 1 | 6.76 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5259 | beam-bracings | 2046CF41LPL303 | CF4-303 | PL10*210 | 1 | 6.76 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5260 | beam-bracings | 2046CF41LPL304 | CF4-304 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5261 | beam-bracings | 2046CF41LPL305 | CF4-305 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5262 | beam-bracings | 2046CF41LPL306 | CF4-306 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5263 | beam-bracings | 2046CF41LPL307 | CF4-307 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5264 | beam-bracings | 2046CF41LPL308 | CF4-308 | PL15*300 | 1 | 14.48 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5265 | beam-bracings | 2046CF41LPL309 | CF4-309 | PL15*300 | 1 | 14.48 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5266 | beam-bracings | 2046CF41LPL310 | CF4-310 | PL10*250 | 1 | 8.05 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5267 | beam-bracings | 2046CF41LPL311 | CF4-311 | PL10*250 | 1 | 8.05 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5268 | beam-bracings | 2046CF41LPL312 | CF4-312 | PL10*250 | 1 | 8.05 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5269 | beam-bracings | 2046CF41LPL313 | CF4-313 | PL10*250 | 1 | 8.05 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5270 | beam-bracings | 2046CF41LPL314 | CF4-314 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5271 | beam-bracings | 2046CF41LPL315 | CF4-315 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5272 | beam-bracings | 2046CF41LPL316 | CF4-316 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5273 | beam-bracings | 2046CF41LPL317 | CF4-317 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5274 | beam-bracings | 2046CF41LPL318 | CF4-318 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5275 | beam-bracings | 2046CF41LPL319 | CF4-319 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5276 | beam-bracings | 2046CF41LPL320 | CF4-320 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5277 | beam-bracings | 2046CF41LPL321 | CF4-321 | PL15*110 | 1 | 5.31 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5278 | beam-bracings | 2046CF41LPL322 | CF4-322 | PL15*300 | 1 | 14.48 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5279 | beam-bracings | 2046CF41LPL323 | CF4-323 | PL15*300 | 1 | 14.48 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5280 | beam-bracings | 2046CF41LPL324 | CF4-324 | PL15*300 | 1 | 14.48 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5281 | beam-bracings | 2046CF41LPL325 | CF4-325 | PL15*300 | 1 | 14.48 | C | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5282 | beam-bracings | 2046DF41LPL209 | DF4-209 | PL10*210 | 1 | 6.76 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5283 | beam-bracings | 2046DF41LPL210 | DF4-210 | PL10*210 | 1 | 6.76 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5284 | beam-bracings | 2046DF41LPL211 | DF4-211 | PL10*250 | 1 | 8.05 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5285 | beam-bracings | 2046DF41LPL212 | DF4-212 | PL10*250 | 1 | 8.05 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5286 | beam-bracings | 2046DF41LPL213 | DF4-213 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5287 | beam-bracings | 2046DF41LPL214 | DF4-214 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5288 | beam-bracings | 2046DF41LPL215 | DF4-215 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5289 | beam-bracings | 2046DF41LPL216 | DF4-216 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5290 | beam-bracings | 2046DF41LPL217 | DF4-217 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5291 | beam-bracings | 2046DF41LPL218 | DF4-218 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5292 | beam-bracings | 2046DF41LPL219 | DF4-219 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5293 | beam-bracings | 2046DF41LPL220 | DF4-220 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5294 | beam-bracings | 2046DF41LPL221 | DF4-221 | PL15*300 | 1 | 14.48 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5295 | beam-bracings | 2046DF41LPL222 | DF4-222 | PL15*300 | 1 | 14.48 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5296 | beam-bracings | 2046DF41LPL223 | DF4-223 | PL15*300 | 1 | 14.48 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5297 | beam-bracings | 2046DF41LPL224 | DF4-224 | PL15*300 | 1 | 14.48 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5298 | beam-bracings | 2046DF41LPL225 | DF4-225 | PL10*250 | 1 | 8.05 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5299 | beam-bracings | 2046DF41LPL226 | DF4-226 | PL10*250 | 1 | 8.05 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5300 | beam-bracings | 2046DF41LPL228 | DF4-228 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5301 | beam-bracings | 2046DF41LPL229 | DF4-229 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5302 | beam-bracings | 2046DF41LPL230 | DF4-230 | PL15*110 | 1 | 5.31 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5303 | beam-bracings | 2046DF41LPL231 | DF4-231 | PL15*300 | 1 | 14.48 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5304 | beam-bracings | 2046DF41LPL232 | DF4-232 | PL15*300 | 1 | 14.48 | D | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5305 | beam-bracings | 2046EF41TR54 | EF4-54 | HEA400 | 1 | 6168.51 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 18/09/2015 | 163 |
| 5306 | beam-bracings | 2046EF41LPL233 | EF4-233 | PL10*210 | 1 | 6.76 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5307 | beam-bracings | 2046EF41LPL234 | EF4-234 | PL10*210 | 1 | 6.76 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5308 | beam-bracings | 2046EF41LPL235 | EF4-235 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5309 | beam-bracings | 2046EF41LPL236 | EF4-236 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5310 | beam-bracings | 2046EF41LPL237 | EF4-237 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5311 | beam-bracings | 2046EF41LPL238 | EF4-238 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 18/06/2015 | 111 |
| 5312 | beam-bracings | 2046EF41LPL239 | EF4-239 | PL15*300 | 1 | 14.48 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5313 | beam-bracings | 2046EF41LPL240 | EF4-240 | PL15*300 | 1 | 14.48 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5314 | beam-bracings | 2046EF41LPL241 | EF4-241 | PL10*250 | 1 | 8.05 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5315 | beam-bracings | 2046EF41LPL242 | EF4-242 | PL10*250 | 1 | 8.05 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5316 | beam-bracings | 2046EF41LPL243 | EF4-243 | PL10*250 | 1 | 8.05 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5317 | beam-bracings | 2046EF41LPL244 | EF4-244 | PL10*250 | 1 | 8.05 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5318 | beam-bracings | 2046EF41LPL245 | EF4-245 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5319 | beam-bracings | 2046EF41LPL246 | EF4-246 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5320 | beam-bracings | 2046EF41LPL247 | EF4-247 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5321 | beam-bracings | 2046EF41LPL248 | EF4-248 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5322 | beam-bracings | 2046EF41LPL249 | EF4-249 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5323 | beam-bracings | 2046EF41LPL250 | EF4-250 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5324 | beam-bracings | 2046EF41LPL251 | EF4-251 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5325 | beam-bracings | 2046EF41LPL252 | EF4-252 | PL15*110 | 1 | 5.31 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5326 | beam-bracings | 2046EF41LPL253 | EF4-253 | PL15*300 | 1 | 14.48 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5327 | beam-bracings | 2046EF41LPL254 | EF4-254 | PL15*300 | 1 | 14.48 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5328 | beam-bracings | 2046EF41LPL255 | EF4-255 | PL15*300 | 1 | 14.48 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5329 | beam-bracings | 2046EF41LPL256 | EF4-256 | PL15*300 | 1 | 14.48 | E | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5330 | beam-bracings | 2046FF41LPL169 | FF4-169 | PL10*210 | 1 | 6.76 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5331 | beam-bracings | 2046FF41LPL170 | FF4-170 | PL10*210 | 1 | 6.76 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5332 | beam-bracings | 2046FF41LPL171 | FF4-171 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5333 | beam-bracings | 2046FF41LPL172 | FF4-172 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5334 | beam-bracings | 2046FF41LPL173 | FF4-173 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5335 | beam-bracings | 2046FF41LPL175 | FF4-175 | PL15*300 | 1 | 14.48 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5336 | beam-bracings | 2046FF41LPL176 | FF4-176 | PL15*300 | 1 | 14.48 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5337 | beam-bracings | 2046FF41LPL177 | FF4-177 | PL10*250 | 1 | 8.05 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |

## Table A3-03: Schedule of Beam-Bracing Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5338 | beam-bracings | 2046FF41LPL178 | FF4-178 | PL10*250 | 1 | 8.05 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5339 | beam-bracings | 2046FF41LPL179 | FF4-179 | PL10*250 | 1 | 8.05 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5340 | beam-bracings | 2046FF41LPL180 | FF4-180 | PL10*250 | 1 | 8.05 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5341 | beam-bracings | 2046FF41LPL181 | FF4-181 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5342 | beam-bracings | 2046FF41LPL182 | FF4-182 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5343 | beam-bracings | 2046FF41LPL183 | FF4-183 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5344 | beam-bracings | 2046FF41LPL184 | FF4-184 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5345 | beam-bracings | 2046FF41LPL185 | FF4-185 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5346 | beam-bracings | 2046FF41LPL186 | FF4-186 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5347 | beam-bracings | 2046FF41LPL187 | FF4-187 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5348 | beam-bracings | 2046FF41LPL188 | FF4-188 | PL15*110 | 1 | 5.31 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5349 | beam-bracings | 2046FF41LPL189 | FF4-189 | PL15*300 | 1 | 14.48 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5350 | beam-bracings | 2046FF41LPL190 | FF4-190 | PL15*300 | 1 | 14.48 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5351 | beam-bracings | 2046FF41LPL191 | FF4-191 | PL15*300 | 1 | 14.48 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5352 | beam-bracings | 2046FF41LPL192 | FF4-192 | PL15*300 | 1 | 14.48 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5353 | beam-bracings | 2046FF41TR54 | FF4-54 | HEA400 | 1 | 6168.51 | F | 4 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 14/09/2015 | 162 |
| 5354 | beam-bracings | 2046GF41LPL181 | GF4-181 | PL10*210 | 1 | 6.76 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 03/07/2015 | 127 |
| 5355 | beam-bracings | 2046GF41LPL182 | GF4-182 | PL10*210 | 1 | 6.76 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 03/07/2015 | 127 |
| 5356 | beam-bracings | 2046GF41LPL183 | GF4-183 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5357 | beam-bracings | 2046GF41LPL184 | GF4-184 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5358 | beam-bracings | 2046GF41LPL185 | GF4-185 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5359 | beam-bracings | 2046GF41LPL186 | GF4-186 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5360 | beam-bracings | 2046GF41LPL187 | GF4-187 | PL15*300 | 1 | 14.48 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5361 | beam-bracings | 2046GF41LPL188 | GF4-188 | PL15*300 | 1 | 14.48 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5362 | beam-bracings | 2046GF41LPL189 | GF4-189 | PL10*250 | 1 | 8.05 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 03/07/2015 | 127 |
| 5363 | beam-bracings | 2046GF41LPL190 | GF4-190 | PL10*250 | 1 | 8.05 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 03/07/2015 | 127 |
| 5364 | beam-bracings | 2046GF41LPL191 | GF4-191 | PL10*250 | 1 | 8.05 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 03/07/2015 | 127 |
| 5365 | beam-bracings | 2046GF41LPL192 | GF4-192 | PL10*250 | 1 | 8.05 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 03/07/2015 | 127 |
| 5366 | beam-bracings | 2046GF41LPL193 | GF4-193 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5367 | beam-bracings | 2046GF41LPL194 | GF4-194 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5368 | beam-bracings | 2046GF41LPL195 | GF4-195 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5369 | beam-bracings | 2046GF41LPL196 | GF4-196 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5370 | beam-bracings | 2046GF41LPL197 | GF4-197 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5371 | beam-bracings | 2046GF41LPL198 | GF4-198 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5372 | beam-bracings | 2046GF41LPL199 | GF4-199 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5373 | beam-bracings | 2046GF41LPL200 | GF4-200 | PL15*110 | 1 | 5.31 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5374 | beam-bracings | 2046GF41LPL201 | GF4-201 | PL15*300 | 1 | 14.48 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5375 | beam-bracings | 2046GF41LPL202 | GF4-202 | PL15*300 | 1 | 14.48 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5376 | beam-bracings | 2046GF41LPL203 | GF4-203 | PL15*300 | 1 | 14.48 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5377 | beam-bracings | 2046GF41LPL204 | GF4-204 | PL15*300 | 1 | 14.48 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 24/07/2015 | 139 |
| 5378 | beam-bracings | 2046GF41TR54 | GF4-54 | HEA400 | 1 | 6168.51 | G | 4 | 13.3-13.4 | Without Intumescent | Portugal | 11/06/2015 | 14/09/2015 | 162 |
| 5379 | beam-bracings | 2046HF41LPL171 | HF4-171 | PL10*210 | 1 | 6.76 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5380 | beam-bracings | 2046HF41LPL172 | HF4-172 | PL10*210 | 1 | 6.76 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5381 | beam-bracings | 2046HF41LPL173 | HF4-173 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5382 | beam-bracings | 2046HF41LPL174 | HF4-174 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5383 | beam-bracings | 2046HF41LPL175 | HF4-175 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5384 | beam-bracings | 2046HF41LPL176 | HF4-176 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5385 | beam-bracings | 2046HF41LPL177 | HF4-177 | PL15*300 | 1 | 14.48 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5386 | beam-bracings | 2046HF41LPL178 | HF4-178 | PL15*300 | 1 | 14.48 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5387 | beam-bracings | 2046HF41LPL179 | HF4-179 | PL10*250 | 1 | 8.05 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5388 | beam-bracings | 2046HF41LPL180 | HF4-180 | PL10*250 | 1 | 8.05 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5389 | beam-bracings | 2046HF41LPL181 | HF4-181 | PL10*250 | 1 | 8.05 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5390 | beam-bracings | 2046HF41LPL182 | HF4-182 | PL10*250 | 1 | 8.05 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5391 | beam-bracings | 2046HF41LPL183 | HF4-183 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5392 | beam-bracings | 2046HF41LPL184 | HF4-184 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5393 | beam-bracings | 2046HF41LPL185 | HF4-185 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5394 | beam-bracings | 2046HF41LPL187 | HF4-187 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5395 | beam-bracings | 2046HF41LPL188 | HF4-188 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5396 | beam-bracings | 2046HF41LPL189 | HF4-189 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5397 | beam-bracings | 2046HF41LPL190 | HF4-190 | PL15*110 | 1 | 5.31 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5398 | beam-bracings | 2046HF41LPL191 | HF4-191 | PL15*300 | 1 | 14.48 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5399 | beam-bracings | 2046HF41LPL192 | HF4-192 | PL15*300 | 1 | 14.48 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5400 | beam-bracings | 2046HF41LPL193 | HF4-193 | PL15*300 | 1 | 14.48 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5401 | beam-bracings | 2046HF41LPL194 | HF4-194 | PL15*300 | 1 | 14.48 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5402 | beam-bracings | 2046HF41TR54 | HF4-54 | HEA400 | 1 | 4699.32 | H | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 11/09/2015 | 161 |
| 5403 | beam-bracings | 2046IF41LPL171 | IF4-171 | PL10*210 | 1 | 6.76 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5404 | beam-bracings | 2046IF41LPL172 | IF4-172 | PL10*210 | 1 | 6.76 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5405 | beam-bracings | 2046IF41LPL173 | IF4-173 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5406 | beam-bracings | 2046IF41LPL174 | IF4-174 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5407 | beam-bracings | 2046IF41LPL175 | IF4-175 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5408 | beam-bracings | 2046IF41LPL176 | IF4-176 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5409 | beam-bracings | 2046IF41LPL177 | IF4-177 | PL15*300 | 1 | 14.48 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5410 | beam-bracings | 2046IF41LPL178 | IF4-178 | PL15*300 | 1 | 14.48 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5411 | beam-bracings | 2046IF41LPL179 | IF4-179 | PL10*250 | 1 | 8.05 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5412 | beam-bracings | 2046IF41LPL180 | IF4-180 | PL10*250 | 1 | 8.05 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5413 | beam-bracings | 2046IF41LPL181 | IF4-181 | PL10*250 | 1 | 8.05 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5414 | beam-bracings | 2046IF41LPL182 | IF4-182 | PL10*250 | 1 | 8.05 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5415 | beam-bracings | 2046IF41LPL183 | IF4-183 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5416 | beam-bracings | 2046IF41LPL184 | IF4-184 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5417 | beam-bracings | 2046IF41LPL185 | IF4-185 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5418 | beam-bracings | 2046IF41LPL186 | IF4-186 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5419 | beam-bracings | 2046IF41LPL187 | IF4-187 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5420 | beam-bracings | 2046IF41LPL188 | IF4-188 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5421 | beam-bracings | 2046IF41LPL189 | IF4-189 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5422 | beam-bracings | 2046IF41LPL190 | IF4-190 | PL15*110 | 1 | 5.31 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5423 | beam-bracings | 2046IF41LPL191 | IF4-191 | PL15*300 | 1 | 14.48 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5424 | beam-bracings | 2046IF41LPL192 | IF4-192 | PL15*300 | 1 | 14.48 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5425 | beam-bracings | 2046IF41LPL193 | IF4-193 | PL15*300 | 1 | 14.48 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5426 | beam-bracings | 2046IF41LPL194 | IF4-194 | PL15*300 | 1 | 14.48 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5427 | beam-bracings | 2046IF41TR54 | IF4-54 | HEA400 | 1 | 6168.51 | I | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 11/09/2015 | 161 |
| 5428 | beam-bracings | 2046JF41V53 | JF4-53 | HEB500 | 1 | 885.08 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 31/07/2015 | 143 |
| 5429 | beam-bracings | 2046JF41LPL166 | JF4-166 | PL10*210 | 1 | 6.76 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5430 | beam-bracings | 2046JF41LPL167 | JF4-167 | PL10*210 | 1 | 6.76 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5431 | beam-bracings | 2046JF41LPL168 | JF4-168 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5432 | beam-bracings | 2046JF41LPL169 | JF4-169 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5433 | beam-bracings | 2046JF41LPL171 | JF4-171 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5434 | beam-bracings | 2046JF41LPL173 | JF4-173 | PL15*300 | 1 | 14.48 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5435 | beam-bracings | 2046JF41LPL174 | JF4-174 | PL10*250 | 1 | 8.05 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 128 |
| 5436 | beam-bracings | 2046JF41LPL175 | JF4-175 | PL10*250 | 1 | 8.05 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5437 | beam-bracings | 2046JF41LPL176 | JF4-176 | PL10*250 | 1 | 8.05 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 127 |
| 5438 | beam-bracings | 2046JF41LPL177 | JF4-177 | PL10*250 | 1 | 8.05 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 03/07/2015 | 128 |
| 5439 | beam-bracings | 2046JF41LPL178 | JF4-178 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5440 | beam-bracings | 2046JF41LPL179 | JF4-179 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5441 | beam-bracings | 2046JF41LPL180 | JF4-180 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5442 | beam-bracings | 2046JF41LPL181 | JF4-181 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5443 | beam-bracings | 2046JF41LPL182 | JF4-182 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5444 | beam-bracings | 2046JF41LPL183 | JF4-183 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5445 | beam-bracings | 2046JF41LPL184 | JF4-184 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5446 | beam-bracings | 2046JF41LPL185 | JF4-185 | PL15*110 | 1 | 5.31 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5447 | beam-bracings | 2046JF41LPL186 | JF4-186 | PL15*300 | 1 | 14.48 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5448 | beam-bracings | 2046JF41LPL187 | JF4-187 | PL15*300 | 1 | 14.48 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5449 | beam-bracings | 2046JF41LPL188 | JF4-188 | PL15*300 | 1 | 14.48 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5450 | beam-bracings | 2046JF41LPL189 | JF4-189 | PL15*300 | 1 | 14.48 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 24/07/2015 | 139 |
| 5451 | beam-bracings | 2046JF41TR54 | JF4-54 | HEA400 | 1 | 7099.45 | J | 4 | 13.3-13.4 | Without Intumescent | Portugal | 17/06/2015 | 18/09/2015 | 163 |
| 5452 | beam-bracings | 2046AF44TR172 | AF4-172 | HEA400 | 1 | 7489.15 | A | 4 | 13.1-13.2 | Without Intumescent | Portugal | 22/06/2015 | 11/09/2015 | 161 |
| 5453 | beam-bracings | 2046BF44LPL273 | BF4-273 | PL15*300 | 1 | 14.48 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5454 | beam-bracings | 2046BF44LPL274 | BF4-274 | PL15*300 | 1 | 14.48 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5455 | beam-bracings | 2046BF44LPL275 | BF4-275 | PL15*300 | 1 | 14.48 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5456 | beam-bracings | 2046BF44LPL276 | BF4-276 | PL15*300 | 1 | 14.48 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5457 | beam-bracings | 2046BF44LPL277 | BF4-277 | PL15*300 | 1 | 14.48 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5458 | beam-bracings | 2046BF44LPL278 | BF4-278 | PL15*300 | 1 | 14.48 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5459 | beam-bracings | 2046BF44LPL279 | BF4-279 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5460 | beam-bracings | 2046BF44LPL280 | BF4-280 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5461 | beam-bracings | 2046BF44LPL281 | BF4-281 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5462 | beam-bracings | 2046BF44LPL282 | BF4-282 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5463 | beam-bracings | 2046BF44LPL283 | BF4-283 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5464 | beam-bracings | 2046BF44LPL284 | BF4-284 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5465 | beam-bracings | 2046BF44LPL285 | BF4-285 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5466 | beam-bracings | 2046BF44LPL286 | BF4-286 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5467 | beam-bracings | 2046BF44LPL287 | BF4-287 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5468 | beam-bracings | 2046BF44LPL288 | BF4-288 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5469 | beam-bracings | 2046BF44LPL289 | BF4-289 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5470 | beam-bracings | 2046BF44LPL290 | BF4-290 | PL15*110 | 1 | 5.31 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5471 | beam-bracings | 2046BF44LPL291 | BF4-291 | PL10*250 | 1 | 8.05 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5472 | beam-bracings | 2046BF44LPL292 | BF4-292 | PL10*250 | 1 | 8.05 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5473 | beam-bracings | 2046BF44LPL293 | BF4-293 | PL10*250 | 1 | 8.05 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5474 | beam-bracings | 2046BF44LPL294 | BF4-294 | PL10*250 | 1 | 8.05 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5475 | beam-bracings | 2046BF44LPL295 | BF4-295 | PL10*210 | 1 | 6.76 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5476 | beam-bracings | 2046BF44LPL296 | BF4-296 | PL10*210 | 1 | 6.76 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5477 | beam-bracings | 2046BF44TR131 | BF4-131 | HEA400 | 1 | 6168.51 | B | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 04/09/2015 | 158 |
| 5478 | beam-bracings | 2046CF44LPL274 | CF4-274 | PL15*300 | 1 | 14.48 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5479 | beam-bracings | 2046CF44LPL275 | CF4-275 | PL15*300 | 1 | 14.48 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5480 | beam-bracings | 2046CF44LPL276 | CF4-276 | PL15*300 | 1 | 14.48 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5481 | beam-bracings | 2046CF44LPL277 | CF4-277 | PL15*300 | 1 | 14.48 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5482 | beam-bracings | 2046CF44LPL278 | CF4-278 | PL15*300 | 1 | 14.48 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5483 | beam-bracings | 2046CF44LPL279 | CF4-279 | PL15*300 | 1 | 14.48 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5484 | beam-bracings | 2046CF44LPL280 | CF4-280 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5485 | beam-bracings | 2046CF44LPL281 | CF4-281 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5486 | beam-bracings | 2046CF44LPL282 | CF4-282 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5487 | beam-bracings | 2046CF44LPL283 | CF4-283 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5488 | beam-bracings | 2046CF44LPL284 | CF4-284 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5489 | beam-bracings | 2046CF44LPL285 | CF4-285 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5490 | beam-bracings | 2046CF44LPL286 | CF4-286 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5491 | beam-bracings | 2046CF44LPL287 | CF4-287 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5492 | beam-bracings | 2046CF44LPL288 | CF4-288 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5493 | beam-bracings | 2046CF44LPL289 | CF4-289 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5494 | beam-bracings | 2046CF44LPL290 | CF4-290 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5495 | beam-bracings | 2046CF44LPL291 | CF4-291 | PL15*110 | 1 | 5.31 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5496 | beam-bracings | 2046CF44LPL292 | CF4-292 | PL10*250 | 1 | 8.05 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5497 | beam-bracings | 2046CF44LPL293 | CF4-293 | PL10*250 | 1 | 8.05 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5498 | beam-bracings | 2046CF44LPL294 | CF4-294 | PL10*250 | 1 | 8.05 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5499 | beam-bracings | 2046CF44LPL295 | CF4-295 | PL10*250 | 1 | 8.05 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5500 | beam-bracings | 2046CF44LPL296 | CF4-296 | PL10*210 | 1 | 6.76 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5501 | beam-bracings | 2046CF44LPL297 | CF4-297 | PL10*210 | 1 | 6.76 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5502 | beam-bracings | 2046CF44TR129 | CF4-129 | HEA400 | 1 | 6168.51 | C | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 04/09/2015 | 158 |
| 5503 | beam-bracings | 2046DF44LPL181 | DF4-181 | PL15*300 | 1 | 14.48 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5504 | beam-bracings | 2046DF44LPL182 | DF4-182 | PL15*300 | 1 | 14.48 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5505 | beam-bracings | 2046DF44LPL183 | DF4-183 | PL15*300 | 1 | 14.48 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5506 | beam-bracings | 2046DF44LPL184 | DF4-184 | PL15*300 | 1 | 14.48 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5507 | beam-bracings | 2046DF44LPL185 | DF4-185 | PL15*300 | 1 | 14.48 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5508 | beam-bracings | 2046DF44LPL186 | DF4-186 | PL15*300 | 1 | 14.48 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5509 | beam-bracings | 2046DF44LPL187 | DF4-187 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5510 | beam-bracings | 2046DF44LPL188 | DF4-188 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5511 | beam-bracings | 2046DF44LPL189 | DF4-189 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5512 | beam-bracings | 2046DF44LPL190 | DF4-190 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5513 | beam-bracings | 2046DF44LPL191 | DF4-191 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5514 | beam-bracings | 2046DF44LPL192 | DF4-192 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5515 | beam-bracings | 2046DF44LPL193 | DF4-193 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5516 | beam-bracings | 2046DF44LPL194 | DF4-194 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5517 | beam-bracings | 2046DF44LPL195 | DF4-195 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5518 | beam-bracings | 2046DF44LPL196 | DF4-196 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5519 | beam-bracings | 2046DF44LPL197 | DF4-197 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5520 | beam-bracings | 2046DF44LPL198 | DF4-198 | PL15*110 | 1 | 5.31 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5521 | beam-bracings | 2046DF44LPL199 | DF4-199 | PL10*250 | 1 | 8.05 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5522 | beam-bracings | 2046DF44LPL200 | DF4-200 | PL10*250 | 1 | 8.05 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5523 | beam-bracings | 2046DF44LPL201 | DF4-201 | PL10*250 | 1 | 8.05 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5524 | beam-bracings | 2046DF44LPL202 | DF4-202 | PL10*250 | 1 | 8.05 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5525 | beam-bracings | 2046DF44LPL203 | DF4-203 | PL10*210 | 1 | 6.76 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5526 | beam-bracings | 2046DF44LPL204 | DF4-204 | PL10*210 | 1 | 6.76 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5527 | beam-bracings | 2046DF44TR101 | DF4-101 | HEA400 | 1 | 6168.51 | D | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 04/09/2015 | 158 |
| 5528 | beam-bracings | 2046EF44LPL173 | EF4-173 | PL10*210 | 1 | 6.76 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5529 | beam-bracings | 2046EF44LPL174 | EF4-174 | PL10*210 | 1 | 6.76 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5530 | beam-bracings | 2046EF44LPL177 | EF4-177 | PL10*250 | 1 | 8.05 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5531 | beam-bracings | 2046EF44LPL178 | EF4-178 | PL10*250 | 1 | 8.05 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5532 | beam-bracings | 2046EF44LPL179 | EF4-179 | PL10*250 | 1 | 8.05 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5533 | beam-bracings | 2046EF44LPL180 | EF4-180 | PL10*250 | 1 | 8.05 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5534 | beam-bracings | 2046EF44LPL185 | EF4-185 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5535 | beam-bracings | 2046EF44LPL186 | EF4-186 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5536 | beam-bracings | 2046EF44LPL187 | EF4-187 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5537 | beam-bracings | 2046EF44LPL188 | EF4-188 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5538 | beam-bracings | 2046EF44LPL189 | EF4-189 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5539 | beam-bracings | 2046EF44LPL190 | EF4-190 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5540 | beam-bracings | 2046EF44LPL191 | EF4-191 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5541 | beam-bracings | 2046EF44LPL192 | EF4-192 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5542 | beam-bracings | 2046EF44LPL193 | EF4-193 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5543 | beam-bracings | 2046EF44LPL194 | EF4-194 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5544 | beam-bracings | 2046EF44LPL195 | EF4-195 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5545 | beam-bracings | 2046EF44LPL196 | EF4-196 | PL15*110 | 1 | 5.31 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5546 | beam-bracings | 2046EF44LPL209 | EF4-209 | PL15*300 | 1 | 14.48 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5547 | beam-bracings | 2046EF44LPL210 | EF4-210 | PL15*300 | 1 | 14.48 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5548 | beam-bracings | 2046EF44LPL211 | EF4-211 | PL15*300 | 1 | 14.48 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5549 | beam-bracings | 2046EF44LPL212 | EF4-212 | PL15*300 | 1 | 14.48 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5550 | beam-bracings | 2046EF44LPL213 | EF4-213 | PL15*300 | 1 | 14.48 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5551 | beam-bracings | 2046EF44LPL214 | EF4-214 | PL15*300 | 1 | 14.48 | E | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5552 | beam-bracings | 2046FF44TR99 | FF4-99 | HEA400 | 1 | 6168.51 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 25/09/2015 | 165 |
| 5553 | beam-bracings | 2046FF44LPL197 | FF4-197 | PL10*210 | 1 | 6.76 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5554 | beam-bracings | 2046FF44LPL198 | FF4-198 | PL10*210 | 1 | 6.76 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5555 | beam-bracings | 2046FF44LPL199 | FF4-199 | PL10*250 | 1 | 8.05 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5556 | beam-bracings | 2046FF44LPL200 | FF4-200 | PL10*250 | 1 | 8.05 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5557 | beam-bracings | 2046FF44LPL201 | FF4-201 | PL10*250 | 1 | 8.05 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5558 | beam-bracings | 2046FF44LPL202 | FF4-202 | PL10*250 | 1 | 8.05 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5559 | beam-bracings | 2046FF44LPL203 | FF4-203 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5560 | beam-bracings | 2046FF44LPL204 | FF4-204 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5561 | beam-bracings | 2046FF44LPL205 | FF4-205 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5562 | beam-bracings | 2046FF44LPL206 | FF4-206 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5563 | beam-bracings | 2046FF44LPL207 | FF4-207 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5564 | beam-bracings | 2046FF44LPL208 | FF4-208 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5565 | beam-bracings | 2046FF44LPL209 | FF4-209 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5566 | beam-bracings | 2046FF44LPL210 | FF4-210 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5567 | beam-bracings | 2046FF44LPL211 | FF4-211 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5568 | beam-bracings | 2046FF44LPL212 | FF4-212 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5569 | beam-bracings | 2046FF44LPL213 | FF4-213 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5570 | beam-bracings | 2046FF44LPL214 | FF4-214 | PL15*110 | 1 | 5.31 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5571 | beam-bracings | 2046FF44LPL215 | FF4-215 | PL15*300 | 1 | 14.48 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5572 | beam-bracings | 2046FF44LPL216 | FF4-216 | PL15*300 | 1 | 14.48 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5573 | beam-bracings | 2046FF44LPL217 | FF4-217 | PL15*300 | 1 | 14.48 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5574 | beam-bracings | 2046FF44LPL218 | FF4-218 | PL15*300 | 1 | 14.48 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5575 | beam-bracings | 2046FF44LPL219 | FF4-219 | PL15*300 | 1 | 14.48 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5576 | beam-bracings | 2046FF44LPL220 | FF4-220 | PL15*300 | 1 | 14.48 | F | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5577 | beam-bracings | 2046GF44LPL209 | GF4-209 | PL10*210 | 1 | 6.76 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5578 | beam-bracings | 2046GF44LPL210 | GF4-210 | PL10*210 | 1 | 6.76 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5579 | beam-bracings | 2046GF44LPL211 | GF4-211 | PL10*250 | 1 | 8.05 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5580 | beam-bracings | 2046GF44LPL212 | GF4-212 | PL10*250 | 1 | 8.05 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5581 | beam-bracings | 2046GF44LPL213 | GF4-213 | PL10*250 | 1 | 8.05 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5582 | beam-bracings | 2046GF44LPL215 | GF4-215 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5583 | beam-bracings | 2046GF44LPL216 | GF4-216 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5584 | beam-bracings | 2046GF44LPL217 | GF4-217 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5585 | beam-bracings | 2046GF44LPL218 | GF4-218 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5586 | beam-bracings | 2046GF44LPL219 | GF4-219 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5587 | beam-bracings | 2046GF44LPL220 | GF4-220 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5588 | beam-bracings | 2046GF44LPL221 | GF4-221 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5589 | beam-bracings | 2046GF44LPL222 | GF4-222 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5590 | beam-bracings | 2046GF44LPL223 | GF4-223 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5591 | beam-bracings | 2046GF44LPL226 | GF4-226 | PL15*110 | 1 | 5.31 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5592 | beam-bracings | 2046GF44LPL227 | GF4-227 | PL15*300 | 1 | 14.48 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5593 | beam-bracings | 2046GF44LPL228 | GF4-228 | PL15*300 | 1 | 14.48 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5594 | beam-bracings | 2046GF44LPL229 | GF4-229 | PL15*300 | 1 | 14.48 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5595 | beam-bracings | 2046GF44LPL230 | GF4-230 | PL15*300 | 1 | 14.48 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5596 | beam-bracings | 2046GF44LPL231 | GF4-231 | PL15*300 | 1 | 14.48 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5597 | beam-bracings | 2046GF44LPL232 | GF4-232 | PL15*300 | 1 | 14.48 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5598 | beam-bracings | 2046GF44TR100 | GF4-100 | HEA400 | 1 | 6168.51 | G | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 25/09/2015 | 165 |
| 5599 | beam-bracings | 2046HF44LPL199 | HF4-199 | PL10*210 | 1 | 6.76 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5600 | beam-bracings | 2046HF44LPL200 | HF4-200 | PL10*210 | 1 | 6.76 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5601 | beam-bracings | 2046HF44LPL201 | HF4-201 | PL10*250 | 1 | 8.05 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5602 | beam-bracings | 2046HF44LPL202 | HF4-202 | PL10*250 | 1 | 8.05 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5603 | beam-bracings | 2046HF44LPL203 | HF4-203 | PL10*250 | 1 | 8.05 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5604 | beam-bracings | 2046HF44LPL204 | HF4-204 | PL10*250 | 1 | 8.05 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5605 | beam-bracings | 2046HF44LPL205 | HF4-205 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5606 | beam-bracings | 2046HF44LPL206 | HF4-206 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5607 | beam-bracings | 2046HF44LPL207 | HF4-207 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5608 | beam-bracings | 2046HF44LPL208 | HF4-208 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5609 | beam-bracings | 2046HF44LPL209 | HF4-209 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5610 | beam-bracings | 2046HF44LPL210 | HF4-210 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5611 | beam-bracings | 2046HF44LPL211 | HF4-211 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5612 | beam-bracings | 2046HF44LPL212 | HF4-212 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5613 | beam-bracings | 2046HF44LPL214 | HF4-214 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5614 | beam-bracings | 2046HF44LPL215 | HF4-215 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5615 | beam-bracings | 2046HF44LPL216 | HF4-216 | PL15*110 | 1 | 5.31 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5616 | beam-bracings | 2046HF44LPL217 | HF4-217 | PL15*300 | 1 | 14.48 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5617 | beam-bracings | 2046HF44LPL218 | HF4-218 | PL15*300 | 1 | 14.48 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5618 | beam-bracings | 2046HF44LPL219 | HF4-219 | PL15*300 | 1 | 14.48 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5619 | beam-bracings | 2046HF44LPL220 | HF4-220 | PL15*300 | 1 | 14.48 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5620 | beam-bracings | 2046HF44LPL221 | HF4-221 | PL15*300 | 1 | 14.48 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5621 | beam-bracings | 2046HF44LPL222 | HF4-222 | PL15*300 | 1 | 14.48 | H | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5622 | beam-bracings | 2046IF44LPL200 | IF4-200 | PL10*210 | 1 | 6.76 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5623 | beam-bracings | 2046IF44LPL201 | IF4-201 | PL10*250 | 1 | 8.05 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5624 | beam-bracings | 2046IF44LPL202 | IF4-202 | PL10*250 | 1 | 8.05 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5625 | beam-bracings | 2046IF44LPL203 | IF4-203 | PL10*250 | 1 | 8.05 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5626 | beam-bracings | 2046IF44LPL204 | IF4-204 | PL10*250 | 1 | 8.05 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5627 | beam-bracings | 2046IF44LPL205 | IF4-205 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5628 | beam-bracings | 2046IF44LPL206 | IF4-206 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5629 | beam-bracings | 2046IF44LPL208 | IF4-208 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5630 | beam-bracings | 2046IF44LPL209 | IF4-209 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5631 | beam-bracings | 2046IF44LPL210 | IF4-210 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5632 | beam-bracings | 2046IF44LPL211 | IF4-211 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5633 | beam-bracings | 2046IF44LPL213 | IF4-213 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5634 | beam-bracings | 2046IF44LPL214 | IF4-214 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5635 | beam-bracings | 2046IF44LPL215 | IF4-215 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5636 | beam-bracings | 2046IF44LPL216 | IF4-216 | PL15*110 | 1 | 5.31 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5637 | beam-bracings | 2046IF44LPL218 | IF4-218 | PL15*300 | 1 | 14.48 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5638 | beam-bracings | 2046IF44LPL220 | IF4-220 | PL15*300 | 1 | 14.48 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5639 | beam-bracings | 2046IF44LPL221 | IF4-221 | PL15*300 | 1 | 14.48 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5640 | beam-bracings | 2046IF44LPL222 | IF4-222 | PL15*300 | 1 | 14.48 | I | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5641 | beam-bracings | 2046JF44LPL194 | JF4-194 | PL10*210 | 1 | 6.76 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5642 | beam-bracings | 2046JF44LPL195 | JF4-195 | PL10*210 | 1 | 6.76 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5643 | beam-bracings | 2046JF44LPL196 | JF4-196 | PL10*250 | 1 | 8.05 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5644 | beam-bracings | 2046JF44LPL197 | JF4-197 | PL10*250 | 1 | 8.05 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5645 | beam-bracings | 2046JF44LPL198 | JF4-198 | PL10*250 | 1 | 8.05 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5646 | beam-bracings | 2046JF44LPL199 | JF4-199 | PL10*250 | 1 | 8.05 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 07/08/2015 | 147 |
| 5647 | beam-bracings | 2046JF44LPL200 | JF4-200 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5648 | beam-bracings | 2046JF44LPL201 | JF4-201 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5649 | beam-bracings | 2046JF44LPL202 | JF4-202 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5650 | beam-bracings | 2046JF44LPL203 | JF4-203 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5651 | beam-bracings | 2046JF44LPL204 | JF4-204 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5652 | beam-bracings | 2046JF44LPL205 | JF4-205 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5653 | beam-bracings | 2046JF44LPL206 | JF4-206 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5654 | beam-bracings | 2046JF44LPL207 | JF4-207 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5655 | beam-bracings | 2046JF44LPL208 | JF4-208 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5656 | beam-bracings | 2046JF44LPL209 | JF4-209 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5657 | beam-bracings | 2046JF44LPL210 | JF4-210 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5658 | beam-bracings | 2046JF44LPL211 | JF4-211 | PL15*110 | 1 | 5.31 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5659 | beam-bracings | 2046JF44LPL212 | JF4-212 | PL15*300 | 1 | 14.48 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5660 | beam-bracings | 2046JF44LPL213 | JF4-213 | PL15*300 | 1 | 14.48 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5661 | beam-bracings | 2046JF44LPL214 | JF4-214 | PL15*300 | 1 | 14.48 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5662 | beam-bracings | 2046JF44LPL215 | JF4-215 | PL15*300 | 1 | 14.48 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5663 | beam-bracings | 2046JF44LPL217 | JF4-217 | PL15*300 | 1 | 14.48 | J | 4 | 13.1-13.2 | Without Intumescent | Portugal | 23/06/2015 | 24/07/2015 | 139 |
| 5665 | beam-bracings | 2046AF54B181 | AF5-181 | HEA300 | 1 | 555.00 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 136 |
| 5666 | beam-bracings | 2046AF54B182 | AF5-182 | HEA300 | 1 | 565.66 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 20/07/2015 | 137 |
| 5667 | beam-bracings | 2046AF54B185 | AF5-185 | HEB320 | 1 | 814.37 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 20/07/2015 | 137 |
| 5668 | beam-bracings | 2046AF54B186 | AF5-186 | HEB320 | 1 | 882.48 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5669 | beam-bracings | 2046AF54B187 | AF5-187 | HEB320 | 1 | 1023.81 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 22/07/2015 | 138 |
| 5670 | beam-bracings | 2046AF54B188 | AF5-188 | HEB320 | 1 | 814.37 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 20/07/2015 | 137 |
| 5671 | beam-bracings | 2046AF54B189 | AF5-189 | HEB320 | 1 | 981.98 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5672 | beam-bracings | 2046AF54B190 | AF5-190 | HEB320 | 1 | 809.32 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5673 | beam-bracings | 2046AF54LPL229 | AF5-229 | PL10*200 | 1 | 12.40 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5674 | beam-bracings | 2046AF54LPL230 | AF5-230 | PL10*200 | 1 | 12.40 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5675 | beam-bracings | 2046AF54LPL231 | AF5-231 | PL10*200 | 1 | 12.40 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5676 | beam-bracings | 2046AF54LPL232 | AF5-232 | PL10*200 | 1 | 12.40 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5677 | beam-bracings | 2046AF54LPL235 | AF5-235 | PL20*300 | 1 | 41.92 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5678 | beam-bracings | 2046AF54LPL236 | AF5-236 | PL20*300 | 1 | 41.92 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 136 |
| 5679 | beam-bracings | 2046AF54LPL237 | AF5-237 | PL20*300 | 1 | 41.92 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 136 |
| 5680 | beam-bracings | 2046AF54LPL238 | AF5-238 | PL20*300 | 1 | 41.92 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 17/07/2015 | 136 |
| 5681 | beam-bracings | 2046AF54LPL239 | AF5-239 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5682 | beam-bracings | 2046AF54LPL240 | AF5-240 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |

**Table A3-03: Schedule of Beam-Bracing Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5683 | beam-bracings | 2046AF54LPL241 | AF5-241 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 31/07/2015 | 143 |
| 5684 | beam-bracings | 2046AF54LPL242 | AF5-242 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 31/07/2015 | 143 |
| 5685 | beam-bracings | 2046AF54LPL243 | AF5-243 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5686 | beam-bracings | 2046AF54LPL244 | AF5-244 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5687 | beam-bracings | 2046AF54LPL245 | AF5-245 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5688 | beam-bracings | 2046AF54LPL246 | AF5-246 | PL25*110 | 1 | 19.21 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5689 | beam-bracings | 2046AF54LPL247 | AF5-247 | PL10*250 | 1 | 6.87 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5690 | beam-bracings | 2046AF54LPL248 | AF5-248 | PL10*250 | 1 | 6.87 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5691 | beam-bracings | 2046AF54LPL249 | AF5-249 | PL10*250 | 1 | 6.87 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5692 | beam-bracings | 2046AF54LPL250 | AF5-250 | PL10*250 | 1 | 6.87 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 01/08/2015 | 166 |
| 5693 | beam-bracings | 2046AF54LPR183 | AF5-183 | HEB320 | 1 | 461.88 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5694 | beam-bracings | 2046AF54LPR184 | AF5-184 | HEB320 | 1 | 461.88 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 22/07/2015 | 138 |
| 5695 | beam-bracings | 2046AF54LPR233 | AF5-233 | HEB320 | 1 | 461.88 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5696 | beam-bracings | 2046AF54LPR234 | AF5-234 | HEB320 | 1 | 461.88 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5697 | beam-bracings | 2046AF54V161 | AF5-161 | PL30*904.5 | 1 | 287.88 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5698 | beam-bracings | 2046AF54V162 | AF5-162 | PL30*904.5 | 1 | 306.96 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5699 | beam-bracings | 2046AF54V163 | AF5-163 | PL30*904.5 | 1 | 306.96 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5700 | beam-bracings | 2046AF54V164 | AF5-164 | PL30*904.5 | 1 | 279.37 | A | 5 | 13.1-13.2 | Without Intumescent | Portugal | 02/06/2015 | 24/07/2015 | 139 |
| 5701 | beam-bracings | 2046BF51LPL144 | BF5-144 | PL10*200 | 1 | 12.40 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 03/07/2015 | 128 |
| 5702 | beam-bracings | 2046BF51LPL145 | BF5-145 | PL10*200 | 1 | 12.40 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 03/07/2015 | 128 |
| 5703 | beam-bracings | 2046BF51LPL147 | BF5-147 | PL20*300 | 1 | 41.92 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 17/07/2015 | 136 |
| 5704 | beam-bracings | 2046BF51LPL148 | BF5-148 | PL20*300 | 1 | 41.92 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 17/07/2015 | 136 |
| 5705 | beam-bracings | 2046BF51LPL149 | BF5-149 | PL25*110 | 1 | 19.21 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5706 | beam-bracings | 2046BF51LPL150 | BF5-150 | PL25*110 | 1 | 19.21 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5707 | beam-bracings | 2046BF51LPL151 | BF5-151 | PL25*110 | 1 | 19.21 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5708 | beam-bracings | 2046BF51LPL152 | BF5-152 | PL25*110 | 1 | 19.21 | B | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5709 | beam-bracings | 2046CF51LPL143 | CF5-143 | PL10*200 | 1 | 12.40 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 03/07/2015 | 128 |
| 5710 | beam-bracings | 2046CF51LPL144 | CF5-144 | PL10*200 | 1 | 12.40 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 03/07/2015 | 128 |
| 5711 | beam-bracings | 2046CF51LPL146 | CF5-146 | PL20*300 | 1 | 41.92 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 17/07/2015 | 136 |
| 5712 | beam-bracings | 2046CF51LPL147 | CF5-147 | PL20*300 | 1 | 41.92 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 17/07/2015 | 136 |
| 5713 | beam-bracings | 2046CF51LPL148 | CF5-148 | PL25*110 | 1 | 19.21 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5714 | beam-bracings | 2046CF51LPL149 | CF5-149 | PL25*110 | 1 | 19.21 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5715 | beam-bracings | 2046CF51LPL150 | CF5-150 | PL25*110 | 1 | 19.21 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5716 | beam-bracings | 2046CF51LPL151 | CF5-151 | PL25*110 | 1 | 19.21 | C | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5717 | beam-bracings | 2046DF51LPL105 | DF5-105 | PL10*200 | 1 | 12.40 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 03/07/2015 | 128 |
| 5718 | beam-bracings | 2046DF51LPL106 | DF5-106 | PL10*200 | 1 | 12.40 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 03/07/2015 | 128 |
| 5719 | beam-bracings | 2046DF51LPL108 | DF5-108 | PL20*300 | 1 | 41.92 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 17/07/2015 | 136 |
| 5720 | beam-bracings | 2046DF51LPL109 | DF5-109 | PL20*300 | 1 | 41.92 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 17/08/2015 | 166 |
| 5721 | beam-bracings | 2046DF51LPL110 | DF5-110 | PL25*110 | 1 | 19.21 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5722 | beam-bracings | 2046DF51LPL111 | DF5-111 | PL25*110 | 1 | 19.21 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5723 | beam-bracings | 2046DF51LPL112 | DF5-112 | PL25*110 | 1 | 19.21 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5724 | beam-bracings | 2046DF51LPL113 | DF5-113 | PL25*110 | 1 | 19.21 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 24/07/2015 | 139 |
| 5725 | beam-bracings | 2046DF51LPR107 | DF5-107 | HEB320 | 1 | 461.88 | D | 5 | 13.3-13.4 | Without Intumescent | Portugal | 03/06/2015 | 01/09/2015 | 157 |
| 5726 | beam-bracings | 2046EF51LPL125 | EF5-125 | PL10*200 | 1 | 12.40 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 03/07/2015 | 127 |
| 5727 | beam-bracings | 2046EF51LPL126 | EF5-126 | PL10*200 | 1 | 12.40 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 03/07/2015 | 127 |
| 5728 | beam-bracings | 2046EF51LPL128 | EF5-128 | PL20*300 | 1 | 41.92 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 07/08/2015 | 147 |
| 5729 | beam-bracings | 2046EF51LPL129 | EF5-129 | PL20*300 | 1 | 41.92 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 07/08/2015 | 147 |
| 5730 | beam-bracings | 2046EF51LPL130 | EF5-130 | PL25*110 | 1 | 19.21 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5731 | beam-bracings | 2046EF51LPL131 | EF5-131 | PL25*110 | 1 | 19.21 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5732 | beam-bracings | 2046EF51LPL132 | EF5-132 | PL25*110 | 1 | 19.21 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5733 | beam-bracings | 2046EF51LPL133 | EF5-133 | PL25*110 | 1 | 19.21 | E | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5734 | beam-bracings | 2046GF51LPL125 | GF5-125 | PL10*200 | 1 | 12.40 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 03/07/2015 | 127 |
| 5735 | beam-bracings | 2046GF51LPL126 | GF5-126 | PL10*200 | 1 | 12.40 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 03/07/2015 | 127 |
| 5736 | beam-bracings | 2046GF51LPL128 | GF5-128 | PL20*300 | 1 | 41.92 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 07/08/2015 | 147 |
| 5737 | beam-bracings | 2046GF51LPL129 | GF5-129 | PL20*300 | 1 | 41.92 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 07/08/2015 | 147 |
| 5738 | beam-bracings | 2046GF51LPL130 | GF5-130 | PL25*110 | 1 | 19.21 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5739 | beam-bracings | 2046GF51LPL131 | GF5-131 | PL25*110 | 1 | 19.21 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5740 | beam-bracings | 2046GF51LPL132 | GF5-132 | PL25*110 | 1 | 19.21 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5741 | beam-bracings | 2046GF51LPL133 | GF5-133 | PL25*110 | 1 | 19.21 | G | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 24/07/2015 | 139 |
| 5742 | beam-bracings | 2046HF51LPL125 | HF5-125 | PL10*200 | 1 | 12.40 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5743 | beam-bracings | 2046HF51LPL126 | HF5-126 | PL10*200 | 1 | 12.40 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5744 | beam-bracings | 2046HF51LPL128 | HF5-128 | PL20*300 | 1 | 41.92 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 07/08/2015 | 147 |
| 5745 | beam-bracings | 2046HF51LPL129 | HF5-129 | PL20*300 | 1 | 41.92 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 07/08/2015 | 147 |
| 5746 | beam-bracings | 2046HF51LPL130 | HF5-130 | PL25*110 | 1 | 19.21 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 31/07/2015 | 143 |
| 5747 | beam-bracings | 2046HF51LPL131 | HF5-131 | PL25*110 | 1 | 19.21 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5748 | beam-bracings | 2046HF51LPL132 | HF5-132 | PL25*110 | 1 | 19.21 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5749 | beam-bracings | 2046HF51LPL133 | HF5-133 | PL25*110 | 1 | 19.21 | H | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5750 | beam-bracings | 2046IF51LPL125 | IF5-125 | PL10*200 | 1 | 12.40 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5751 | beam-bracings | 2046IF51LPL126 | IF5-126 | PL10*200 | 1 | 12.40 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 03/07/2015 | 127 |
| 5752 | beam-bracings | 2046IF51LPL128 | IF5-128 | PL20*300 | 1 | 41.92 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 07/08/2015 | 147 |
| 5753 | beam-bracings | 2046IF51LPL129 | IF5-129 | PL20*300 | 1 | 41.92 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 07/08/2015 | 147 |
| 5754 | beam-bracings | 2046IF51LPL130 | IF5-130 | PL25*110 | 1 | 19.21 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 24/07/2015 | 139 |
| 5755 | beam-bracings | 2046IF51LPL131 | IF5-131 | PL25*110 | 1 | 19.21 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 31/07/2015 | 143 |
| 5756 | beam-bracings | 2046IF51LPL132 | IF5-132 | PL25*110 | 1 | 19.21 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 31/07/2015 | 143 |
| 5757 | beam-bracings | 2046IF51LPL133 | IF5-133 | PL25*110 | 1 | 19.21 | I | 5 | 13.3-13.4 | Without Intumescent | Portugal | 09/06/2015 | 31/07/2015 | 143 |
| 5759 | beam-bracings | 2046JF51FP59 | JF5-59 | HEA240 | 1 | 466.26 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/07/2015 | 17/08/2015 | 166 |
| 5760 | beam-bracings | 2046JF51FP60 | JF5-60 | HEA240 | 1 | 465.33 | J | 5 | 13.3-13.4 | Without Intumescent | Portugal | 20/07/2015 | 04/09/2015 | 158 |
| 5761 | beam-bracings | 2046FF51LPL125 | FF5-125 | PL10*200 | 1 | 12.40 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 01/08/2015 | 166 |
| 5762 | beam-bracings | 2046FF51LPL126 | FF5-126 | PL10*200 | 1 | 12.40 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 01/08/2015 | 166 |
| 5763 | beam-bracings | 2046FF51LPL128 | FF5-128 | PL20*300 | 1 | 41.92 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 07/08/2015 | 147 |
| 5764 | beam-bracings | 2046FF51LPL129 | FF5-129 | PL20*300 | 1 | 41.92 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 07/08/2015 | 147 |
| 5765 | beam-bracings | 2046FF51LPL130 | FF5-130 | PL25*110 | 1 | 19.21 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 01/08/2015 | 166 |
| 5766 | beam-bracings | 2046FF51LPL131 | FF5-131 | PL25*110 | 1 | 19.21 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 01/08/2015 | 166 |
| 5767 | beam-bracings | 2046FF51LPL132 | FF5-132 | PL25*110 | 1 | 19.21 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 01/08/2015 | 166 |
| 5768 | beam-bracings | 2046FF51LPL133 | FF5-133 | PL25*110 | 1 | 19.21 | F | 5 | 13.3-13.4 | Without Intumescent | Portugal | 08/06/2015 | 01/08/2015 | 166 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Roof | 2046AR50B289 | AR5-289 | SHS300*10 | 1 | 1021.46 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 2 | Roof | 2046AR50B313 | AR5-313 | SHS300*10 | 1 | 774.13 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 3 | Roof | 2046AR50B314 | AR5-314 | SHS300*10 | 1 | 1021.46 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 4 | Roof | 2046AR50B329 | AR5-329 | SHS300*10 | 1 | 736.57 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 5 | Roof | 2046AR50B330 | AR5-330 | SHS300*10 | 1 | 775.48 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 6 | Roof | 2046AR50B356 | AR5-356 | SHS300*10 | 1 | 983.85 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 7 | Roof | 2046AR50B357 | AR5-357 | SHS300*10 | 1 | 983.85 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 8 | Roof | 2046AR50B358 | AR5-358 | SHS300*10 | 1 | 983.85 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 29/10/2014 | 08 |
| 9 | Roof | 2046AR50B359 | AR5-359 | SHS300*10 | 1 | 983.85 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 10 | Roof | 2046AR50B360 | AR5-360 | SHS300*10 | 1 | 782.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 11 | Roof | 2046AR50B361 | AR5-361 | SHS300*10 | 1 | 782.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 12 | Roof | 2046AR50B362 | AR5-362 | SHS300*10 | 1 | 782.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 13 | Roof | 2046AR50BR316 | AR5-316 | CHS219.1*8.0 | 1 | 272.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 14 | Roof | 2046AR50BR317 | AR5-317 | CHS219.1*8.0 | 1 | 272.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 15 | Roof | 2046AR50BR318 | AR5-318 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 16 | Roof | 2046AR50BR319 | AR5-319 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 17 | Roof | 2046AR50BR320 | AR5-320 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 18 | Roof | 2046AR50BR321 | AR5-321 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 19 | Roof | 2046AR50BR322 | AR5-322 | CHS219.1*8.0 | 1 | 272.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 20 | Roof | 2046AR50BR323 | AR5-323 | CHS219.1*8.0 | 1 | 272.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 14/11/2014 | 13 |
| 21 | Roof | 2046AR50BR324 | AR5-324 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 22 | Roof | 2046AR50BR325 | AR5-325 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 23 | Roof | 2046AR50BR326 | AR5-326 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 24 | Roof | 2046AR50BR327 | AR5-327 | CHS219.1*8.0 | 1 | 274.31 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 25 | Roof | 2046AR50BR344 | AR5-344 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 26 | Roof | 2046AR50BR345 | AR5-345 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 27 | Roof | 2046AR50BR346 | AR5-346 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 28 | Roof | 2046AR50BR347 | AR5-347 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 29 | Roof | 2046AR50BR348 | AR5-348 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 30 | Roof | 2046AR50BR349 | AR5-349 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 31 | Roof | 2046AR50BR350 | AR5-350 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 32 | Roof | 2046AR50BR351 | AR5-351 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 33 | Roof | 2046AR50BR352 | AR5-352 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 34 | Roof | 2046AR50BR353 | AR5-353 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 35 | Roof | 2046AR50BR354 | AR5-354 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 14/11/2014 | 13 |
| 36 | Roof | 2046AR50BR355 | AR5-355 | CHS168.3*8.0 | 1 | 210.75 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 14/11/2014 | 13 |
| 37 | Roof | 2046BR50B42 | BR5-42 | SHS300*10 | 1 | 887.44 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 38 | Roof | 2046BR50B43 | BR5-43 | SHS300*10 | 1 | 887.44 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 39 | Roof | 2046BR50B44 | BR5-44 | SHS300*10 | 1 | 772.93 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 40 | Roof | 2046BR50B60 | BR5-60 | SHS300*10 | 1 | 892.33 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 41 | Roof | 2046BR50B61 | BR5-61 | SHS300*10 | 1 | 892.33 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 42 | Roof | 2046BR50B62 | BR5-62 | SHS300*10 | 1 | 892.33 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 43 | Roof | 2046CR50B2 | CR5-2 | SHS300*10 | 1 | 774.26 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 44 | Roof | 2046CR50B4 | CR5-4 | SHS300*10 | 1 | 892.33 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 45 | Roof | 2046CR50B5 | CR5-5 | SHS300*10 | 1 | 892.33 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 10/11/2014 | 12 |
| 46 | Roof | 2046CR50B6 | CR5-6 | SHS300*10 | 1 | 892.33 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 47 | Roof | 2046DR50B1 | DR5-1 | SHS300*10 | 1 | 774.26 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/11/2014 | 10 |
| 48 | Roof | 2046DR50B4 | DR5-4 | SHS300*10 | 1 | 892.33 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 49 | Roof | 2046DR50B5 | DR5-5 | SHS300*10 | 1 | 892.33 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 50 | Roof | 2046DR50B6 | DR5-6 | SHS300*10 | 1 | 892.33 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 51 | Roof | 2046ER50B1 | ER5-1 | SHS300*10 | 1 | 774.26 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 23/10/2014 | 06 |
| 52 | Roof | 2046ER50B4 | ER5-4 | SHS300*10 | 1 | 892.33 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 53 | Roof | 2046ER50B5 | ER5-5 | SHS300*10 | 1 | 892.33 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 54 | Roof | 2046ER50B6 | ER5-6 | SHS300*10 | 1 | 892.33 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 21/10/2014 | 05 |
| 55 | Roof | 2046FR50B1 | FR5-1 | SHS300*10 | 1 | 774.26 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 56 | Roof | 2046FR50B4 | FR5-4 | SHS300*10 | 1 | 892.33 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 02/03/2015 | 45 |
| 57 | Roof | 2046FR50B5 | FR5-5 | SHS300*10 | 1 | 892.33 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 02/03/2015 | 45 |
| 58 | Roof | 2046FR50B6 | FR5-6 | SHS300*10 | 1 | 892.33 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 59 | Roof | 2046GR50B1 | GR5-1 | SHS300*10 | 1 | 774.26 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 60 | Roof | 2046GR50B4 | GR5-4 | SHS300*10 | 1 | 892.33 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 09/03/2015 | 48 |
| 61 | Roof | 2046GR50B5 | GR5-5 | SHS300*10 | 1 | 892.33 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/03/2015 | 46 |
| 62 | Roof | 2046GR50B6 | GR5-6 | SHS300*10 | 1 | 892.33 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/02/2015 | 43 |
| 63 | Roof | 2046HR50B2 | HR5-2 | SHS300*10 | 1 | 774.26 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 64 | Roof | 2046HR50B4 | HR5-4 | SHS300*10 | 1 | 892.33 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/02/2015 | 43 |
| 65 | Roof | 2046HR50B5 | HR5-5 | SHS300*10 | 1 | 892.33 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 20/03/2015 | 54 |
| 66 | Roof | 2046HR50B6 | HR5-6 | SHS300*10 | 1 | 892.33 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 67 | Roof | 2046IR50B1 | IR5-1 | SHS300*10 | 1 | 772.93 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 68 | Roof | 2046IR50B2 | IR5-2 | SHS300*10 | 1 | 887.44 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 18/03/2015 | 52 |
| 69 | Roof | 2046IR50B3 | IR5-3 | SHS300*10 | 1 | 887.44 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 09/03/2015 | 48 |
| 70 | Roof | 2046IR50B4 | IR5-4 | SHS300*10 | 1 | 892.33 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 09/03/2015 | 48 |
| 71 | Roof | 2046IR50B5 | IR5-5 | SHS300*10 | 1 | 892.33 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 04/03/2015 | 46 |
| 72 | Roof | 2046IR50B6 | IR5-6 | SHS300*10 | 1 | 892.33 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 09/03/2015 | 48 |
| 73 | Roof | 2046JR50B133 | JR5-133 | SHS300*10 | 1 | 983.85 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/02/2015 | 43 |
| 74 | Roof | 2046JR50B134 | JR5-134 | SHS300*10 | 1 | 782.26 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 09/03/2015 | 48 |
| 75 | Roof | 2046JR50B135 | JR5-135 | SHS300*10 | 1 | 983.85 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 18/03/2015 | 52 |
| 76 | Roof | 2046JR50B136 | JR5-136 | SHS300*10 | 1 | 782.26 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 18/03/2015 | 53 |
| 77 | Roof | 2046JR50B137 | JR5-137 | SHS300*10 | 1 | 983.85 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/02/2015 | 43 |
| 78 | Roof | 2046JR50B138 | JR5-138 | SHS300*10 | 1 | 782.26 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 27/02/2015 | 44 |
| 79 | Roof | 2046JR50B139 | JR5-139 | SHS300*10 | 1 | 983.85 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 02/03/2015 | 45 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80 | Roof | 2046JR50BR164 | JR5-164 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 81 | Roof | 2046JR50BR165 | JR5-165 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 82 | Roof | 2046JR50BR166 | JR5-166 | CHS219.1*8.0 | 1 | 272.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 83 | Roof | 2046JR50BR167 | JR5-167 | CHS219.1*8.0 | 1 | 272.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 84 | Roof | 2046JR50BR168 | JR5-168 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 85 | Roof | 2046JR50BR169 | JR5-169 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 86 | Roof | 2046JR50BR170 | JR5-170 | CHS219.1*8.0 | 1 | 272.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 87 | Roof | 2046JR50BR171 | JR5-171 | CHS219.1*8.0 | 1 | 272.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 88 | Roof | 2046JR50BR172 | JR5-172 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 89 | Roof | 2046JR50BR173 | JR5-173 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 90 | Roof | 2046JR50BR174 | JR5-174 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 91 | Roof | 2046JR50BR175 | JR5-175 | CHS219.1*8.0 | 1 | 274.31 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 92 | Roof | 2046JR50BR191 | JR5-191 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 93 | Roof | 2046JR50BR192 | JR5-192 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 94 | Roof | 2046JR50BR193 | JR5-193 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 95 | Roof | 2046JR50BR194 | JR5-194 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 96 | Roof | 2046JR50BR195 | JR5-195 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 97 | Roof | 2046JR50BR196 | JR5-196 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 98 | Roof | 2046JR50BR197 | JR5-197 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 99 | Roof | 2046JR50BR198 | JR5-198 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 100 | Roof | 2046JR50BR199 | JR5-199 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 101 | Roof | 2046JR50BR200 | JR5-200 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 102 | Roof | 2046JR50BR201 | JR5-201 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 103 | Roof | 2046JR50BR202 | JR5-202 | CHS168.3*8.0 | 1 | 210.75 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 11/06/2014 | 25/03/2015 | 56 |
| 104 | Roof | 2046AR50B275 | AR5-275 | HEB320 | 1 | 819.63 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 105 | Roof | 2046AR50B276 | AR5-276 | HEB320 | 1 | 1637.27 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 27/02/2015 | 44 |
| 106 | Roof | 2046AR50B277 | AR5-277 | HEB320 | 1 | 1674.55 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 107 | Roof | 2046AR50B278 | AR5-278 | HEB320 | 1 | 1271.28 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 02/03/2015 | 45 |
| 108 | Roof | 2046AR50B279 | AR5-279 | HEB320 | 1 | 1711.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 109 | Roof | 2046AR50B292 | AR5-292 | HEB320 | 1 | 1711.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/03/2015 | 47 |
| 110 | Roof | 2046AR50B293 | AR5-293 | HEB320 | 1 | 1271.28 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 111 | Roof | 2046AR50B296 | AR5-296 | HEB320 | 1 | 1637.27 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 27/02/2015 | 44 |
| 112 | Roof | 2046AR50B300 | AR5-300 | HEA320 | 1 | 856.94 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/02/2015 | 31 |
| 113 | Roof | 2046AR50B303 | AR5-303 | HEA320 | 1 | 856.94 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/02/2015 | 31 |
| 114 | Roof | 2046AR50B306 | AR5-306 | HEA300 | 1 | 612.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 02/03/2015 | 45 |
| 115 | Roof | 2046AR50B307 | AR5-307 | HEA300 | 1 | 641.61 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/02/2015 | 31 |
| 116 | Roof | 2046AR50B308 | AR5-308 | HEA300 | 1 | 702.17 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 117 | Roof | 2046AR50B309 | AR5-309 | HEA300 | 1 | 736.04 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 118 | Roof | 2046AR50B310 | AR5-310 | HEA300 | 1 | 696.68 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 24/02/2015 | 42 |
| 119 | Roof | 2046AR50B311 | AR5-311 | HEA300 | 1 | 641.61 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 120 | Roof | 2046AR50B312 | AR5-312 | HEA300 | 1 | 612.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 121 | Roof | 2046AR50B315 | AR5-315 | SHS300*10 | 1 | 1063.97 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 122 | Roof | 2046AR50B328 | AR5-328 | SHS300*10 | 1 | 1063.97 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 123 | Roof | 2046AR50B331 | AR5-331 | HEA300 | 1 | 822.51 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 24/02/2015 | 42 |
| 124 | Roof | 2046AR50B334 | AR5-334 | HEA300 | 1 | 822.51 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/02/2015 | 31 |
| 125 | Roof | 2046AR50B337 | AR5-337 | HEA300 | 1 | 612.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 126 | Roof | 2046AR50B338 | AR5-338 | HEA300 | 1 | 641.61 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 24/02/2015 | 42 |
| 127 | Roof | 2046AR50B339 | AR5-339 | HEA300 | 1 | 702.17 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 128 | Roof | 2046AR50B340 | AR5-340 | HEA300 | 1 | 736.04 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 24/02/2015 | 42 |
| 129 | Roof | 2046AR50B341 | AR5-341 | HEA300 | 1 | 696.68 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 02/03/2015 | 45 |
| 130 | Roof | 2046AR50B342 | AR5-342 | HEA300 | 1 | 641.61 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 24/02/2015 | 42 |
| 131 | Roof | 2046AR50B343 | AR5-343 | HEA300 | 1 | 612.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 25/02/2015 | 43 |
| 132 | Roof | 2046AR50LPL7 | AR5-7 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 133 | Roof | 2046AR50LPL8 | AR5-8 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 134 | Roof | 2046AR50LPL9 | AR5-9 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 135 | Roof | 2046AR50LPL10 | AR5-10 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 136 | Roof | 2046AR50LPL11 | AR5-11 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 137 | Roof | 2046AR50LPL12 | AR5-12 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 22/01/2015 | 25 |
| 138 | Roof | 2046AR50LPL13 | AR5-13 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 139 | Roof | 2046AR50LPL14 | AR5-14 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 140 | Roof | 2046AR50LPL15 | AR5-15 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 141 | Roof | 2046AR50LPL16 | AR5-16 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 142 | Roof | 2046AR50LPL17 | AR5-17 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 143 | Roof | 2046AR50LPL18 | AR5-18 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 22/01/2015 | 25 |
| 144 | Roof | 2046AR50LPL23 | AR5-23 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 145 | Roof | 2046AR50LPL24 | AR5-24 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 146 | Roof | 2046AR50LPL25 | AR5-25 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 147 | Roof | 2046AR50LPL26 | AR5-26 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 148 | Roof | 2046AR50LPL27 | AR5-27 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 149 | Roof | 2046AR50LPL28 | AR5-28 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 150 | Roof | 2046AR50LPL31 | AR5-31 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 151 | Roof | 2046AR50LPL32 | AR5-32 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 152 | Roof | 2046AR50LPL33 | AR5-33 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 153 | Roof | 2046AR50LPL34 | AR5-34 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 154 | Roof | 2046AR50LPL35 | AR5-35 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 155 | Roof | 2046AR50LPL36 | AR5-36 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 156 | Roof | 2046AR50LPL65 | AR5-65 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 157 | Roof | 2046AR50LPL66 | AR5-66 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 158 | Roof | 2046AR50LPL67 | AR5-67 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 159 | Roof | 2046AR50LPL68 | AR5-68 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 160 | Roof | 2046AR50LPL69 | AR5-69 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 161 | Roof | 2046AR50LPL70 | AR5-70 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 162 | Roof | 2046AR50LPL71 | AR5-71 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 163 | Roof | 2046AR50LPL72 | AR5-72 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 164 | Roof | 2046AR50LPL73 | AR5-73 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 165 | Roof | 2046AR50LPL74 | AR5-74 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 166 | Roof | 2046AR50LPL75 | AR5-75 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 167 | Roof | 2046AR50LPL76 | AR5-76 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 168 | Roof | 2046AR50LPL77 | AR5-77 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 169 | Roof | 2046AR50LPL78 | AR5-78 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 170 | Roof | 2046AR50LPL79 | AR5-79 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 171 | Roof | 2046AR50LPL80 | AR5-80 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 172 | Roof | 2046AR50LPL81 | AR5-81 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 173 | Roof | 2046AR50LPL82 | AR5-82 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 174 | Roof | 2046AR50LPL83 | AR5-83 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 22/01/2015 | 25 |
| 175 | Roof | 2046AR50LPL84 | AR5-84 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 176 | Roof | 2046AR50LPL85 | AR5-85 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 177 | Roof | 2046AR50LPL86 | AR5-86 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 178 | Roof | 2046AR50LPL87 | AR5-87 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 179 | Roof | 2046AR50LPL88 | AR5-88 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 180 | Roof | 2046AR50LPL89 | AR5-89 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 181 | Roof | 2046AR50LPL90 | AR5-90 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 182 | Roof | 2046AR50LPL91 | AR5-91 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 183 | Roof | 2046AR50LPL92 | AR5-92 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 184 | Roof | 2046AR50LPL93 | AR5-93 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 185 | Roof | 2046AR50LPL94 | AR5-94 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 186 | Roof | 2046AR50LPL95 | AR5-95 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 187 | Roof | 2046AR50LPL96 | AR5-96 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 188 | Roof | 2046AR50LPL97 | AR5-97 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 189 | Roof | 2046AR50LPL98 | AR5-98 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 190 | Roof | 2046AR50LPL99 | AR5-99 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 191 | Roof | 2046AR50LPL100 | AR5-100 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 192 | Roof | 2046AR50LPL101 | AR5-101 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 193 | Roof | 2046AR50LPL102 | AR5-102 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 194 | Roof | 2046AR50LPL103 | AR5-103 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 195 | Roof | 2046AR50LPL104 | AR5-104 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/03/2015 | 50 |
| 196 | Roof | 2046AR50LPL105 | AR5-105 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 197 | Roof | 2046AR50LPL106 | AR5-106 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 198 | Roof | 2046AR50LPL107 | AR5-107 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 199 | Roof | 2046AR50LPL108 | AR5-108 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 200 | Roof | 2046AR50LPL109 | AR5-109 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 201 | Roof | 2046AR50LPL110 | AR5-110 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 202 | Roof | 2046AR50LPL111 | AR5-111 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 203 | Roof | 2046AR50LPL112 | AR5-112 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 204 | Roof | 2046AR50LPL113 | AR5-113 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 205 | Roof | 2046AR50LPL114 | AR5-114 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 04/03/2015 | 46 |
| 206 | Roof | 2046AR50LPL161 | AR5-161 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 207 | Roof | 2046AR50LPL162 | AR5-162 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 208 | Roof | 2046AR50LPL163 | AR5-163 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 209 | Roof | 2046AR50LPL164 | AR5-164 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 210 | Roof | 2046AR50LPL165 | AR5-165 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 211 | Roof | 2046AR50LPL166 | AR5-166 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 212 | Roof | 2046AR50LPL167 | AR5-167 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 213 | Roof | 2046AR50LPL168 | AR5-168 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 214 | Roof | 2046AR50LPL169 | AR5-169 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 215 | Roof | 2046AR50LPL170 | AR5-170 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 216 | Roof | 2046AR50LPL175 | AR5-175 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 217 | Roof | 2046AR50LPL176 | AR5-176 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 218 | Roof | 2046AR50LPL177 | AR5-177 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 219 | Roof | 2046AR50LPL178 | AR5-178 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 220 | Roof | 2046AR50LPL180 | AR5-180 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 221 | Roof | 2046AR50LPL181 | AR5-181 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 222 | Roof | 2046AR50LPL182 | AR5-182 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 223 | Roof | 2046AR50LPL183 | AR5-183 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 224 | Roof | 2046AR50LPL184 | AR5-184 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 225 | Roof | 2046AR50LPL185 | AR5-185 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 226 | Roof | 2046AR50LPL186 | AR5-186 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 227 | Roof | 2046AR50LPL187 | AR5-187 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 228 | Roof | 2046AR50LPL188 | AR5-188 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 229 | Roof | 2046AR50LPL189 | AR5-189 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 230 | Roof | 2046AR50LPL190 | AR5-190 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 231 | Roof | 2046AR50LPL191 | AR5-191 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 232 | Roof | 2046AR50LPL192 | AR5-192 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 233 | Roof | 2046AR50LPL193 | AR5-193 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 234 | Roof | 2046AR50LPL194 | AR5-194 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 235 | Roof | 2046AR50LPL195 | AR5-195 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 236 | Roof | 2046AR50LPL196 | AR5-196 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 237 | Roof | 2046AR50LPL197 | AR5-197 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |

### Table A3-04: Schedule of Roof Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 238 | Roof | 2046AR50LPL198 | AR5-198 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 239 | Roof | 2046AR50LPL199 | AR5-199 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 240 | Roof | 2046AR50LPL200 | AR5-200 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 241 | Roof | 2046AR50LPL201 | AR5-201 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 242 | Roof | 2046AR50LPL202 | AR5-202 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 243 | Roof | 2046AR50LPL203 | AR5-203 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 244 | Roof | 2046AR50LPL204 | AR5-204 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 245 | Roof | 2046AR50LPL205 | AR5-205 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 246 | Roof | 2046AR50LPL206 | AR5-206 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 247 | Roof | 2046AR50LPL207 | AR5-207 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 248 | Roof | 2046AR50LPL208 | AR5-208 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 249 | Roof | 2046AR50LPL209 | AR5-209 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 250 | Roof | 2046AR50LPL210 | AR5-210 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 251 | Roof | 2046AR50LPL211 | AR5-211 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 252 | Roof | 2046AR50LPL212 | AR5-212 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 253 | Roof | 2046AR50LPL213 | AR5-213 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 254 | Roof | 2046AR50LPL214 | AR5-214 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 22/01/2015 | 25 |
| 255 | Roof | 2046AR50LPL215 | AR5-215 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 256 | Roof | 2046AR50LPL216 | AR5-216 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 257 | Roof | 2046AR50LPL217 | AR5-217 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 258 | Roof | 2046AR50LPL218 | AR5-218 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 259 | Roof | 2046AR50LPL219 | AR5-219 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 260 | Roof | 2046AR50LPL220 | AR5-220 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 22/01/2015 | 25 |
| 261 | Roof | 2046AR50LPL221 | AR5-221 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 262 | Roof | 2046AR50LPL222 | AR5-222 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 263 | Roof | 2046AR50LPL223 | AR5-223 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 264 | Roof | 2046AR50LPL224 | AR5-224 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 265 | Roof | 2046AR50LPL225 | AR5-225 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 266 | Roof | 2046AR50LPL226 | AR5-226 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 267 | Roof | 2046AR50LPL227 | AR5-227 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 268 | Roof | 2046AR50LPL228 | AR5-228 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 269 | Roof | 2046AR50LPL229 | AR5-229 | PL10*200 | 1 | 5.18 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 270 | Roof | 2046AR50LPL231 | AR5-231 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 271 | Roof | 2046AR50LPL232 | AR5-232 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 272 | Roof | 2046AR50LPL233 | AR5-233 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 273 | Roof | 2046AR50LPL234 | AR5-234 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 274 | Roof | 2046AR50LPL235 | AR5-235 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 275 | Roof | 2046AR50LPL236 | AR5-236 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 276 | Roof | 2046AR50LPL237 | AR5-237 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 277 | Roof | 2046AR50LPL238 | AR5-238 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 278 | Roof | 2046AR50LPL239 | AR5-239 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 279 | Roof | 2046AR50LPL240 | AR5-240 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 280 | Roof | 2046AR50LPL241 | AR5-241 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 281 | Roof | 2046AR50LPL242 | AR5-242 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 282 | Roof | 2046AR50LPL243 | AR5-243 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 283 | Roof | 2046AR50LPL244 | AR5-244 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 284 | Roof | 2046AR50LPL245 | AR5-245 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 285 | Roof | 2046AR50LPL246 | AR5-246 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 286 | Roof | 2046AR50LPL247 | AR5-247 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 287 | Roof | 2046AR50LPL248 | AR5-248 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 288 | Roof | 2046AR50LPL249 | AR5-249 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 289 | Roof | 2046AR50LPL250 | AR5-250 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 290 | Roof | 2046AR50LPL251 | AR5-251 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 291 | Roof | 2046AR50LPL252 | AR5-252 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 292 | Roof | 2046AR50LPL253 | AR5-253 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 293 | Roof | 2046AR50LPL254 | AR5-254 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 294 | Roof | 2046AR50LPL256 | AR5-256 | PL30*972.2 | 1 | 262.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |
| 295 | Roof | 2046AR50LPL257 | AR5-257 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 296 | Roof | 2046AR50LPL258 | AR5-258 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 297 | Roof | 2046AR50LPL259 | AR5-259 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 298 | Roof | 2046AR50LPL260 | AR5-260 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 299 | Roof | 2046AR50LPL261 | AR5-261 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 300 | Roof | 2046AR50LPL262 | AR5-262 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 301 | Roof | 2046AR50LPL263 | AR5-263 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 302 | Roof | 2046AR50LPL264 | AR5-264 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 303 | Roof | 2046AR50LPL265 | AR5-265 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 304 | Roof | 2046AR50LPL266 | AR5-266 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 305 | Roof | 2046AR50LPL267 | AR5-267 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 306 | Roof | 2046AR50LPL268 | AR5-268 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 307 | Roof | 2046AR50LPL269 | AR5-269 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 308 | Roof | 2046AR50LPL270 | AR5-270 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 309 | Roof | 2046AR50LPL271 | AR5-271 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 310 | Roof | 2046AR50LPL272 | AR5-272 | PL10*250 | 1 | 8.44 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 311 | Roof | 2046AR50LPL273 | AR5-273 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 312 | Roof | 2046AR50LPL274 | AR5-274 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 313 | Roof | 2046AR50LPL280 | AR5-280 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 314 | Roof | 2046AR50LPL281 | AR5-281 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 315 | Roof | 2046AR50LPL282 | AR5-282 | FPL20*170 | 1 | 12.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 27/07/2015 | 155 |
| 316 | Roof | 2046AR50LPL285 | AR5-285 | PL30*972.2 | 1 | 262.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 15/01/2015 | 23 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 317 | Roof | 2046AR50LPL286 | AR5-286 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 09/01/2015 | 21 |
| 318 | Roof | 2046AR50LPL287 | AR5-287 | PL10*330 | 1 | 10.62 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 22/01/2015 | 25 |
| 319 | Roof | 2046AR50LPR301 | AR5-301 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 320 | Roof | 2046AR50LPR302 | AR5-302 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 321 | Roof | 2046AR50LPR304 | AR5-304 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 322 | Roof | 2046AR50LPR305 | AR5-305 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 323 | Roof | 2046AR50LPR332 | AR5-332 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 324 | Roof | 2046AR50LPR333 | AR5-333 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 325 | Roof | 2046AR50LPR335 | AR5-335 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 28/01/2015 | 28 |
| 326 | Roof | 2046AR50LPR336 | AR5-336 | HEB320 | 1 | 1011.05 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 01/08/2015 | 166 |
| 327 | Roof | 2046AR50V255 | AR5-255 | PL30*972.2 | 1 | 316.96 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 13/02/2015 | 36 |
| 328 | Roof | 2046AR50V283 | AR5-283 | PL30*972.2 | 1 | 316.96 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 329 | Roof | 2046AR50V284 | AR5-284 | PL60*981.8 | 1 | 567.95 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 330 | Roof | 2046AR50V288 | AR5-288 | PL60*981.8 | 1 | 630.52 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 28/10/2014 | 06/02/2015 | 32 |
| 331 | Roof | 2046BR50B95 | BR5-95 | HEA300 | 1 | 641.61 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 332 | Roof | 2046BR50B96 | BR5-96 | HEA300 | 1 | 822.51 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 333 | Roof | 2046BR50B97 | BR5-97 | HEA300 | 1 | 696.68 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 334 | Roof | 2046BR50B98 | BR5-98 | HEA300 | 1 | 730.55 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 335 | Roof | 2046BR50B99 | BR5-99 | HEA300 | 1 | 696.68 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/03/2015 | 45 |
| 336 | Roof | 2046BR50B100 | BR5-100 | HEA300 | 1 | 822.51 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 337 | Roof | 2046BR50B101 | BR5-101 | HEA300 | 1 | 641.61 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 338 | Roof | 2046BR50B102 | BR5-102 | HEA300 | 1 | 612.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 339 | Roof | 2046BR50B103 | BR5-103 | HEA300 | 1 | 612.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/03/2015 | 45 |
| 340 | Roof | 2046BR50B108 | BR5-108 | HEB320 | 1 | 1598.93 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 341 | Roof | 2046BR50B109 | BR5-109 | HEB320 | 1 | 1636.20 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 17/04/2015 | 71 |
| 342 | Roof | 2046BR50B110 | BR5-110 | HEB320 | 1 | 1598.93 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 343 | Roof | 2046BR50B111 | BR5-111 | HEB320 | 1 | 819.63 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 344 | Roof | 2046BR50B112 | BR5-112 | HEB320 | 1 | 1271.28 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 345 | Roof | 2046BR50B113 | BR5-113 | HEB320 | 1 | 1271.28 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/04/2015 | 64 |
| 346 | Roof | 2046BR50B114 | BR5-114 | HEB320 | 1 | 1717.08 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 347 | Roof | 2046BR50B115 | BR5-115 | HEB320 | 1 | 1717.08 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 17/04/2015 | 71 |
| 348 | Roof | 2046BR50LPL2 | BR5-2 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 349 | Roof | 2046BR50LPL3 | BR5-3 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 350 | Roof | 2046BR50LPL4 | BR5-4 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 351 | Roof | 2046BR50LPL5 | BR5-5 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 352 | Roof | 2046BR50LPL6 | BR5-6 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 353 | Roof | 2046BR50LPL7 | BR5-7 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 354 | Roof | 2046BR50LPL8 | BR5-8 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 355 | Roof | 2046BR50LPL9 | BR5-9 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 356 | Roof | 2046BR50LPL10 | BR5-10 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/02/2015 | 30 |
| 357 | Roof | 2046BR50LPL11 | BR5-11 | PL15*290 | 1 | 29.03 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 358 | Roof | 2046BR50LPL12 | BR5-12 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 359 | Roof | 2046BR50LPL13 | BR5-13 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 360 | Roof | 2046BR50LPL14 | BR5-14 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 361 | Roof | 2046BR50LPL15 | BR5-15 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 362 | Roof | 2046BR50LPL16 | BR5-16 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 363 | Roof | 2046BR50LPL17 | BR5-17 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 364 | Roof | 2046BR50LPL18 | BR5-18 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 365 | Roof | 2046BR50LPL19 | BR5-19 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 366 | Roof | 2046BR50LPL20 | BR5-20 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 367 | Roof | 2046BR50LPL21 | BR5-21 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 368 | Roof | 2046BR50LPL22 | BR5-22 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 369 | Roof | 2046BR50LPL23 | BR5-23 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 370 | Roof | 2046BR50LPL24 | BR5-24 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 371 | Roof | 2046BR50LPL25 | BR5-25 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 372 | Roof | 2046BR50LPL26 | BR5-26 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 373 | Roof | 2046BR50LPL27 | BR5-27 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 374 | Roof | 2046BR50LPL28 | BR5-28 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 375 | Roof | 2046BR50LPL29 | BR5-29 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 376 | Roof | 2046BR50LPL30 | BR5-30 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 377 | Roof | 2046BR50LPL31 | BR5-31 | PL15*100 | 1 | 10.01 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 378 | Roof | 2046BR50LPL32 | BR5-32 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 379 | Roof | 2046BR50LPL33 | BR5-33 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 380 | Roof | 2046BR50LPL34 | BR5-34 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 381 | Roof | 2046BR50LPL35 | BR5-35 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 382 | Roof | 2046BR50LPL36 | BR5-36 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 383 | Roof | 2046BR50LPL37 | BR5-37 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 384 | Roof | 2046BR50LPL38 | BR5-38 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 385 | Roof | 2046BR50LPL39 | BR5-39 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 386 | Roof | 2046BR50LPL40 | BR5-40 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 387 | Roof | 2046BR50LPL41 | BR5-41 | PL10*190 | 1 | 7.76 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 388 | Roof | 2046BR50LPL45 | BR5-45 | PL10*330 | 1 | 10.62 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 27/03/2015 | 59 |
| 389 | Roof | 2046BR50LPL46 | BR5-46 | PL10*330 | 1 | 10.62 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 27/03/2015 | 59 |
| 390 | Roof | 2046BR50LPL47 | BR5-47 | PL10*330 | 1 | 10.62 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 391 | Roof | 2046BR50LPL48 | BR5-48 | PL10*330 | 1 | 10.62 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 27/03/2015 | 59 |
| 392 | Roof | 2046BR50LPL49 | BR5-49 | PL20*170 | 1 | 12.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 393 | Roof | 2046BR50LPL52 | BR5-52 | PL35*300 | 1 | 124.16 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 394 | Roof | 2046BR50LPL53 | BR5-53 | PL35*300 | 1 | 124.16 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 395 | Roof | 2046BR50LPL54 | BR5-54 | PL35*300 | 1 | 122.81 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 396 | Roof | 2046BR50LPL55 | BR5-55 | PL35*300 | 1 | 122.81 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 397 | Roof | 2046BR50LPL56 | BR5-56 | PL35*300 | 1 | 122.81 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 398 | Roof | 2046BR50LPL57 | BR5-57 | PL35*300 | 1 | 122.81 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 399 | Roof | 2046BR50LPL58 | BR5-58 | PL35*300 | 1 | 124.16 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 400 | Roof | 2046BR50LPL59 | BR5-59 | PL35*300 | 1 | 124.16 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/01/2015 | 21 |
| 401 | Roof | 2046BR50LPL63 | BR5-63 | PL25*972.2 | 1 | 218.55 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 402 | Roof | 2046BR50LPL64 | BR5-64 | PL25*972.2 | 1 | 218.55 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 403 | Roof | 2046BR50LPL65 | BR5-65 | PL25*1035.4 | 1 | 232.92 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 404 | Roof | 2046BR50LPL66 | BR5-66 | PL25*1035.4 | 1 | 232.92 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 405 | Roof | 2046BR50LPL67 | BR5-67 | PL25*1035.4 | 1 | 232.92 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 406 | Roof | 2046BR50LPL68 | BR5-68 | PL25*1035.4 | 1 | 232.92 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 407 | Roof | 2046BR50LPL69 | BR5-69 | PL25*972.2 | 1 | 218.55 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 408 | Roof | 2046BR50LPL70 | BR5-70 | PL25*972.2 | 1 | 218.55 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 409 | Roof | 2046BR50LPL87 | BR5-87 | PL25*1419.4 | 1 | 271.99 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 410 | Roof | 2046BR50LPL88 | BR5-88 | PL25*1419.4 | 1 | 271.99 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 411 | Roof | 2046BR50LPL89 | BR5-89 | PL25*1419.4 | 1 | 271.99 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 412 | Roof | 2046BR50LPL90 | BR5-90 | PL25*1419.4 | 1 | 271.99 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 413 | Roof | 2046BR50LPL116 | BR5-116 | PL10*200 | 1 | 7.70 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 414 | Roof | 2046BR50LPL117 | BR5-117 | PL10*200 | 1 | 7.70 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 415 | Roof | 2046BR50LPL118 | BR5-118 | PL10*200 | 1 | 7.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 416 | Roof | 2046BR50LPL119 | BR5-119 | PL10*200 | 1 | 7.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 417 | Roof | 2046BR50LPL120 | BR5-120 | PL10*200 | 1 | 7.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 418 | Roof | 2046BR50LPL121 | BR5-121 | PL10*200 | 1 | 7.69 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 419 | Roof | 2046BR50LPL122 | BR5-122 | PL10*200 | 1 | 7.70 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 420 | Roof | 2046BR50LPL123 | BR5-123 | PL10*200 | 1 | 7.70 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 421 | Roof | 2046BR50LPR104 | BR5-104 | HEB320 | 1 | 1011.05 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 422 | Roof | 2046BR50LPR105 | BR5-105 | HEB320 | 1 | 1011.05 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/02/2015 | 32 |
| 423 | Roof | 2046BR50LPR106 | BR5-106 | HEB320 | 1 | 1011.05 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/02/2015 | 32 |
| 424 | Roof | 2046BR50LPR107 | BR5-107 | HEB320 | 1 | 1011.05 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/02/2015 | 32 |
| 425 | Roof | 2046BR50V50 | BR5-50 | PL45*981.8 | 1 | 429.79 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 426 | Roof | 2046BR50V51 | BR5-51 | PL45*981.8 | 1 | 429.79 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 427 | Roof | 2046CR50B1 | CR5-1 | SHS300*10 | 1 | 949.73 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 428 | Roof | 2046CR50B3 | CR5-3 | SHS300*10 | 1 | 949.73 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 24/02/2015 | 42 |
| 429 | Roof | 2046CR50B7 | CR5-7 | HEA300 | 1 | 612.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 430 | Roof | 2046CR50B8 | CR5-8 | HEA300 | 1 | 641.61 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 431 | Roof | 2046CR50B9 | CR5-9 | HEA300 | 1 | 696.68 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/03/2015 | 45 |
| 432 | Roof | 2046CR50B10 | CR5-10 | HEA300 | 1 | 730.55 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 433 | Roof | 2046CR50B11 | CR5-11 | HEA300 | 1 | 822.51 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 24/02/2015 | 42 |
| 434 | Roof | 2046CR50B12 | CR5-12 | HEA300 | 1 | 822.51 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 435 | Roof | 2046CR50B13 | CR5-13 | HEA300 | 1 | 696.68 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 24/02/2015 | 42 |
| 436 | Roof | 2046CR50B14 | CR5-14 | HEA300 | 1 | 641.61 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 437 | Roof | 2046CR50B15 | CR5-15 | HEA300 | 1 | 612.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 438 | Roof | 2046CR50B16 | CR5-16 | HEB320 | 1 | 1583.97 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/04/2015 | 64 |
| 439 | Roof | 2046CR50B17 | CR5-17 | HEB320 | 1 | 1608.94 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/04/2015 | 64 |
| 440 | Roof | 2046CR50B18 | CR5-18 | HEB320 | 1 | 1583.97 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/04/2015 | 64 |
| 441 | Roof | 2046CR50B19 | CR5-19 | HEB320 | 1 | 1701.50 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 442 | Roof | 2046CR50B20 | CR5-20 | HEB320 | 1 | 1271.28 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 443 | Roof | 2046CR50B21 | CR5-21 | HEB320 | 1 | 1271.28 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 18/03/2015 | 53 |
| 444 | Roof | 2046CR50B22 | CR5-22 | HEB320 | 1 | 1701.50 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/04/2015 | 64 |
| 445 | Roof | 2046CR50B25 | CR5-25 | HEB320 | 1 | 807.32 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 446 | Roof | 2046CR50LPL28 | CR5-28 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 447 | Roof | 2046CR50LPL29 | CR5-29 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 448 | Roof | 2046CR50LPL30 | CR5-30 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 449 | Roof | 2046CR50LPL31 | CR5-31 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 450 | Roof | 2046CR50LPL32 | CR5-32 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 451 | Roof | 2046CR50LPL33 | CR5-33 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 452 | Roof | 2046CR50LPL34 | CR5-34 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 453 | Roof | 2046CR50LPL35 | CR5-35 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 454 | Roof | 2046CR50LPL36 | CR5-36 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 455 | Roof | 2046CR50LPL37 | CR5-37 | PL15*290 | 1 | 29.03 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 456 | Roof | 2046CR50LPL38 | CR5-38 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 457 | Roof | 2046CR50LPL39 | CR5-39 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 458 | Roof | 2046CR50LPL40 | CR5-40 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 459 | Roof | 2046CR50LPL41 | CR5-41 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 460 | Roof | 2046CR50LPL42 | CR5-42 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 461 | Roof | 2046CR50LPL43 | CR5-43 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 462 | Roof | 2046CR50LPL44 | CR5-44 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 463 | Roof | 2046CR50LPL45 | CR5-45 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 464 | Roof | 2046CR50LPL46 | CR5-46 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 465 | Roof | 2046CR50LPL47 | CR5-47 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 466 | Roof | 2046CR50LPL48 | CR5-48 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 467 | Roof | 2046CR50LPL49 | CR5-49 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 468 | Roof | 2046CR50LPL50 | CR5-50 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 469 | Roof | 2046CR50LPL51 | CR5-51 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 470 | Roof | 2046CR50LPL52 | CR5-52 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 471 | Roof | 2046CR50LPL53 | CR5-53 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 472 | Roof | 2046CR50LPL54 | CR5-54 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 473 | Roof | 2046CR50LPL55 | CR5-55 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 474 | Roof | 2046CR50LPL56 | CR5-56 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 475 | Roof | 2046CR50LPL57 | CR5-57 | PL15*100 | 1 | 10.01 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/05/2015 | 84 |
| 476 | Roof | 2046CR50LPL58 | CR5-58 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 477 | Roof | 2046CR50LPL59 | CR5-59 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 478 | Roof | 2046CR50LPL60 | CR5-60 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 479 | Roof | 2046CR50LPL61 | CR5-61 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 480 | Roof | 2046CR50LPL62 | CR5-62 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 481 | Roof | 2046CR50LPL63 | CR5-63 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 482 | Roof | 2046CR50LPL64 | CR5-64 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 483 | Roof | 2046CR50LPL65 | CR5-65 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 484 | Roof | 2046CR50LPL66 | CR5-66 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 485 | Roof | 2046CR50LPL67 | CR5-67 | PL10*190 | 1 | 7.76 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 486 | Roof | 2046CR50LPL68 | CR5-68 | PL10*330 | 1 | 10.62 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 487 | Roof | 2046CR50LPL69 | CR5-69 | PL10*330 | 1 | 10.62 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 488 | Roof | 2046CR50LPL70 | CR5-70 | PL10*330 | 1 | 10.62 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 489 | Roof | 2046CR50LPL71 | CR5-71 | PL10*330 | 1 | 10.62 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 490 | Roof | 2046CR50LPL72 | CR5-72 | FPL20*170 | 1 | 12.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 491 | Roof | 2046CR50LPL75 | CR5-75 | PL35*300 | 1 | 124.16 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 492 | Roof | 2046CR50LPL76 | CR5-76 | PL35*300 | 1 | 124.16 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 493 | Roof | 2046CR50LPL77 | CR5-77 | PL35*300 | 1 | 122.81 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 494 | Roof | 2046CR50LPL78 | CR5-78 | PL35*300 | 1 | 122.81 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 495 | Roof | 2046CR50LPL79 | CR5-79 | PL35*300 | 1 | 122.81 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 496 | Roof | 2046CR50LPL80 | CR5-80 | PL35*300 | 1 | 122.81 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 497 | Roof | 2046CR50LPL81 | CR5-81 | PL35*300 | 1 | 124.16 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 498 | Roof | 2046CR50LPL82 | CR5-82 | PL35*300 | 1 | 124.16 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 499 | Roof | 2046CR50LPL83 | CR5-83 | PL25*1035.4 | 1 | 232.92 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 500 | Roof | 2046CR50LPL84 | CR5-84 | PL25*1035.4 | 1 | 232.92 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 501 | Roof | 2046CR50LPL85 | CR5-85 | PL25*1035.4 | 1 | 232.92 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 502 | Roof | 2046CR50LPL86 | CR5-86 | PL25*1035.4 | 1 | 232.92 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 503 | Roof | 2046CR50LPL87 | CR5-87 | PL25*972.2 | 1 | 218.55 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 504 | Roof | 2046CR50LPL88 | CR5-88 | PL25*972.2 | 1 | 218.55 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 505 | Roof | 2046CR50LPL89 | CR5-89 | PL25*972.2 | 1 | 218.55 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 506 | Roof | 2046CR50LPL90 | CR5-90 | PL25*972.2 | 1 | 218.55 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 507 | Roof | 2046CR50LPL107 | CR5-107 | PL25*1419.4 | 1 | 271.99 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 508 | Roof | 2046CR50LPL108 | CR5-108 | PL25*1419.4 | 1 | 271.99 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 509 | Roof | 2046CR50LPL109 | CR5-109 | PL25*1419.4 | 1 | 271.99 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 510 | Roof | 2046CR50LPL110 | CR5-110 | PL25*1419.4 | 1 | 271.99 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 511 | Roof | 2046CR50LPL115 | CR5-115 | PL10*200 | 1 | 7.70 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 512 | Roof | 2046CR50LPL116 | CR5-116 | PL10*200 | 1 | 7.70 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 513 | Roof | 2046CR50LPL117 | CR5-117 | PL10*200 | 1 | 7.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 514 | Roof | 2046CR50LPL118 | CR5-118 | PL10*200 | 1 | 7.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 515 | Roof | 2046CR50LPL119 | CR5-119 | PL10*200 | 1 | 7.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 516 | Roof | 2046CR50LPL120 | CR5-120 | PL10*200 | 1 | 7.69 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 517 | Roof | 2046CR50LPL121 | CR5-121 | PL10*200 | 1 | 7.70 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 518 | Roof | 2046CR50LPL122 | CR5-122 | PL10*200 | 1 | 7.70 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 519 | Roof | 2046CR50LPR23 | CR5-23 | HEB320 | 1 | 1011.05 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/02/2015 | 34 |
| 520 | Roof | 2046CR50LPR24 | CR5-24 | HEB320 | 1 | 1011.05 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/02/2015 | 34 |
| 521 | Roof | 2046CR50LPR26 | CR5-26 | HEB320 | 1 | 1011.05 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/02/2015 | 34 |
| 522 | Roof | 2046CR50LPR27 | CR5-27 | HEB320 | 1 | 1011.05 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 28/01/2015 | 28 |
| 523 | Roof | 2046CR50V73 | CR5-73 | PL45*981.8 | 1 | 429.79 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 524 | Roof | 2046CR50V74 | CR5-74 | PL45*981.8 | 1 | 429.79 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 525 | Roof | 2046DR50B2 | DR5-2 | SHS300*10 | 1 | 949.73 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 526 | Roof | 2046DR50B3 | DR5-3 | SHS300*10 | 1 | 949.73 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 20/03/2015 | 54 |
| 527 | Roof | 2046DR50B7 | DR5-7 | HEA300 | 1 | 612.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 528 | Roof | 2046DR50B8 | DR5-8 | HEA300 | 1 | 641.61 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 529 | Roof | 2046DR50B9 | DR5-9 | HEA300 | 1 | 696.68 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 530 | Roof | 2046DR50B10 | DR5-10 | HEA300 | 1 | 730.55 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 531 | Roof | 2046DR50B11 | DR5-11 | HEA300 | 1 | 822.51 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 532 | Roof | 2046DR50B14 | DR5-14 | HEA300 | 1 | 641.61 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 533 | Roof | 2046DR50B15 | DR5-15 | HEA300 | 1 | 612.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 534 | Roof | 2046DR50B16 | DR5-16 | HEB320 | 1 | 1718.30 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/04/2015 | 64 |
| 535 | Roof | 2046DR50B17 | DR5-17 | HEB320 | 1 | 1271.28 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 536 | Roof | 2046DR50B18 | DR5-18 | HEB320 | 1 | 1271.28 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 537 | Roof | 2046DR50B19 | DR5-19 | HEB320 | 1 | 1718.30 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 18/03/2015 | 52 |
| 538 | Roof | 2046DR50B20 | DR5-20 | HEB320 | 1 | 1598.93 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 539 | Roof | 2046DR50B21 | DR5-21 | HEB320 | 1 | 1636.20 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 540 | Roof | 2046DR50B22 | DR5-22 | HEB320 | 1 | 1598.93 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 541 | Roof | 2046DR50B27 | DR5-27 | HEB320 | 1 | 819.63 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 542 | Roof | 2046DR50B115 | DR5-115 | HEA300 | 1 | 696.68 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 543 | Roof | 2046DR50B116 | DR5-116 | HEA300 | 1 | 822.51 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 27/02/2015 | 44 |
| 544 | Roof | 2046DR50LPL28 | DR5-28 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 545 | Roof | 2046DR50LPL29 | DR5-29 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 546 | Roof | 2046DR50LPL30 | DR5-30 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 547 | Roof | 2046DR50LPL31 | DR5-31 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 548 | Roof | 2046DR50LPL32 | DR5-32 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 549 | Roof | 2046DR50LPL33 | DR5-33 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 550 | Roof | 2046DR50LPL34 | DR5-34 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 551 | Roof | 2046DR50LPL35 | DR5-35 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 552 | Roof | 2046DR50LPL36 | DR5-36 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 553 | Roof | 2046DR50LPL37 | DR5-37 | PL15*290 | 1 | 29.03 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 554 | Roof | 2046DR50LPL38 | DR5-38 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 555 | Roof | 2046DR50LPL39 | DR5-39 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 556 | Roof | 2046DR50LPL40 | DR5-40 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 557 | Roof | 2046DR50LPL41 | DR5-41 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 558 | Roof | 2046DR50LPL42 | DR5-42 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 559 | Roof | 2046DR50LPL43 | DR5-43 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 560 | Roof | 2046DR50LPL44 | DR5-44 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 561 | Roof | 2046DR50LPL45 | DR5-45 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 562 | Roof | 2046DR50LPL46 | DR5-46 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 563 | Roof | 2046DR50LPL47 | DR5-47 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 564 | Roof | 2046DR50LPL48 | DR5-48 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 565 | Roof | 2046DR50LPL49 | DR5-49 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 566 | Roof | 2046DR50LPL50 | DR5-50 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 567 | Roof | 2046DR50LPL51 | DR5-51 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 568 | Roof | 2046DR50LPL52 | DR5-52 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 569 | Roof | 2046DR50LPL53 | DR5-53 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 570 | Roof | 2046DR50LPL54 | DR5-54 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 571 | Roof | 2046DR50LPL55 | DR5-55 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 572 | Roof | 2046DR50LPL56 | DR5-56 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 573 | Roof | 2046DR50LPL57 | DR5-57 | PL15*100 | 1 | 10.01 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 574 | Roof | 2046DR50LPL58 | DR5-58 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 575 | Roof | 2046DR50LPL59 | DR5-59 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 576 | Roof | 2046DR50LPL60 | DR5-60 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 577 | Roof | 2046DR50LPL61 | DR5-61 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 578 | Roof | 2046DR50LPL62 | DR5-62 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 579 | Roof | 2046DR50LPL63 | DR5-63 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 580 | Roof | 2046DR50LPL64 | DR5-64 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 581 | Roof | 2046DR50LPL65 | DR5-65 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 582 | Roof | 2046DR50LPL66 | DR5-66 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 583 | Roof | 2046DR50LPL67 | DR5-67 | PL10*190 | 1 | 7.76 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 584 | Roof | 2046DR50LPL68 | DR5-68 | PL10*330 | 1 | 10.62 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 27/03/2015 | 59 |
| 585 | Roof | 2046DR50LPL69 | DR5-69 | PL10*330 | 1 | 10.62 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 08/04/2015 | 63 |
| 586 | Roof | 2046DR50LPL70 | DR5-70 | PL10*330 | 1 | 10.62 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 08/04/2015 | 63 |
| 587 | Roof | 2046DR50LPL71 | DR5-71 | PL10*330 | 1 | 10.62 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 08/04/2015 | 63 |
| 588 | Roof | 2046DR50LPL72 | DR5-72 | FPL20*170 | 1 | 12.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 589 | Roof | 2046DR50LPL75 | DR5-75 | PL35*300 | 1 | 124.16 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 590 | Roof | 2046DR50LPL76 | DR5-76 | PL35*300 | 1 | 124.16 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 591 | Roof | 2046DR50LPL77 | DR5-77 | PL35*300 | 1 | 122.81 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 592 | Roof | 2046DR50LPL78 | DR5-78 | PL35*300 | 1 | 122.81 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 593 | Roof | 2046DR50LPL79 | DR5-79 | PL35*300 | 1 | 122.81 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 594 | Roof | 2046DR50LPL80 | DR5-80 | PL35*300 | 1 | 122.81 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 595 | Roof | 2046DR50LPL81 | DR5-81 | PL35*300 | 1 | 124.16 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 596 | Roof | 2046DR50LPL82 | DR5-82 | PL35*300 | 1 | 124.16 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 597 | Roof | 2046DR50LPL83 | DR5-83 | PL25*1035.4 | 1 | 232.92 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 598 | Roof | 2046DR50LPL84 | DR5-84 | PL25*1035.4 | 1 | 232.92 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 599 | Roof | 2046DR50LPL85 | DR5-85 | PL25*1035.4 | 1 | 232.92 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/03/2015 | 45 |
| 600 | Roof | 2046DR50LPL86 | DR5-86 | PL25*1035.4 | 1 | 232.92 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 601 | Roof | 2046DR50LPL87 | DR5-87 | PL25*972.2 | 1 | 218.55 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 602 | Roof | 2046DR50LPL88 | DR5-88 | PL25*972.2 | 1 | 218.55 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 603 | Roof | 2046DR50LPL89 | DR5-89 | PL25*972.2 | 1 | 218.55 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 02/03/2015 | 45 |
| 604 | Roof | 2046DR50LPL90 | DR5-90 | PL25*972.2 | 1 | 218.55 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 605 | Roof | 2046DR50LPL107 | DR5-107 | PL25*1419.4 | 1 | 271.99 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 606 | Roof | 2046DR50LPL108 | DR5-108 | PL25*1419.4 | 1 | 271.99 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 607 | Roof | 2046DR50LPL109 | DR5-109 | PL25*1419.4 | 1 | 271.99 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 608 | Roof | 2046DR50LPL110 | DR5-110 | PL25*1419.4 | 1 | 271.99 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 609 | Roof | 2046DR50LPL118 | DR5-118 | PL10*200 | 1 | 7.70 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 610 | Roof | 2046DR50LPL119 | DR5-119 | PL10*200 | 1 | 7.70 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 611 | Roof | 2046DR50LPL120 | DR5-120 | PL10*200 | 1 | 7.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 612 | Roof | 2046DR50LPL121 | DR5-121 | PL10*200 | 1 | 7.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 613 | Roof | 2046DR50LPL122 | DR5-122 | PL10*200 | 1 | 7.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 614 | Roof | 2046DR50LPL123 | DR5-123 | PL10*200 | 1 | 7.69 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 615 | Roof | 2046DR50LPL124 | DR5-124 | PL10*200 | 1 | 7.70 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 616 | Roof | 2046DR50LPL125 | DR5-125 | PL10*200 | 1 | 7.70 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 617 | Roof | 2046DR50LPR23 | DR5-23 | HEB320 | 1 | 1011.05 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 618 | Roof | 2046DR50LPR25 | DR5-25 | HEB320 | 1 | 1011.05 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 619 | Roof | 2046DR50LPR26 | DR5-26 | HEB320 | 1 | 1011.05 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/02/2015 | 34 |
| 620 | Roof | 2046DR50LPR117 | DR5-117 | HEB320 | 1 | 1011.05 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/02/2015 | 34 |
| 621 | Roof | 2046DR50V73 | DR5-73 | PL45*981.8 | 1 | 429.79 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 622 | Roof | 2046DR50V74 | DR5-74 | PL45*981.8 | 1 | 429.79 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 623 | Roof | 2046ER50B2 | ER5-2 | SHS300*10 | 1 | 949.73 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 25/02/2015 | 43 |
| 624 | Roof | 2046ER50B3 | ER5-3 | SHS300*10 | 1 | 949.73 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 625 | Roof | 2046ER50B7 | ER5-7 | HEA300 | 1 | 612.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 626 | Roof | 2046ER50B8 | ER5-8 | HEA300 | 1 | 641.61 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 627 | Roof | 2046ER50B9 | ER5-9 | HEA300 | 1 | 696.68 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 24/02/2015 | 42 |
| 628 | Roof | 2046ER50B10 | ER5-10 | HEA300 | 1 | 730.55 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 629 | Roof | 2046ER50B11 | ER5-11 | HEA300 | 1 | 822.51 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 24/02/2015 | 42 |
| 630 | Roof | 2046ER50B12 | ER5-12 | HEA300 | 1 | 822.51 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 631 | Roof | 2046ER50B13 | ER5-13 | HEA300 | 1 | 696.68 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 632 | Roof | 2046ER50B14 | ER5-14 | HEA300 | 1 | 641.61 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 24/02/2015 | 42 |

## Table A3-04: Schedule of Roof Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 633 | Roof | 2046ER50B15 | ER5-15 | HEA300 | 1 | 612.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 634 | Roof | 2046ER50B16 | ER5-16 | HEB320 | 1 | 1701.50 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 635 | Roof | 2046ER50B17 | ER5-17 | HEB320 | 1 | 1271.28 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/03/2015 | 49 |
| 636 | Roof | 2046ER50B18 | ER5-18 | HEB320 | 1 | 1271.28 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 20/03/2015 | 54 |
| 637 | Roof | 2046ER50B19 | ER5-19 | HEB320 | 1 | 1701.50 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 20/03/2015 | 54 |
| 638 | Roof | 2046ER50B20 | ER5-20 | HEB320 | 1 | 1598.93 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 639 | Roof | 2046ER50B21 | ER5-21 | HEB320 | 1 | 1636.20 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 09/03/2015 | 48 |
| 640 | Roof | 2046ER50B22 | ER5-22 | HEB320 | 1 | 1598.93 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 17/04/2015 | 71 |
| 641 | Roof | 2046ER50B25 | ER5-25 | HEB320 | 1 | 819.63 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 642 | Roof | 2046ER50LPL28 | ER5-28 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 643 | Roof | 2046ER50LPL29 | ER5-29 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 644 | Roof | 2046ER50LPL30 | ER5-30 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 645 | Roof | 2046ER50LPL31 | ER5-31 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 646 | Roof | 2046ER50LPL32 | ER5-32 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 647 | Roof | 2046ER50LPL33 | ER5-33 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 648 | Roof | 2046ER50LPL34 | ER5-34 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 649 | Roof | 2046ER50LPL35 | ER5-35 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 650 | Roof | 2046ER50LPL36 | ER5-36 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 651 | Roof | 2046ER50LPL37 | ER5-37 | PL15*290 | 1 | 29.03 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 652 | Roof | 2046ER50LPL38 | ER5-38 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 653 | Roof | 2046ER50LPL39 | ER5-39 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 654 | Roof | 2046ER50LPL40 | ER5-40 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 655 | Roof | 2046ER50LPL41 | ER5-41 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 656 | Roof | 2046ER50LPL42 | ER5-42 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 657 | Roof | 2046ER50LPL43 | ER5-43 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 658 | Roof | 2046ER50LPL44 | ER5-44 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 659 | Roof | 2046ER50LPL45 | ER5-45 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 660 | Roof | 2046ER50LPL46 | ER5-46 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 661 | Roof | 2046ER50LPL47 | ER5-47 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 662 | Roof | 2046ER50LPL48 | ER5-48 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 663 | Roof | 2046ER50LPL49 | ER5-49 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 664 | Roof | 2046ER50LPL50 | ER5-50 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 665 | Roof | 2046ER50LPL51 | ER5-51 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 666 | Roof | 2046ER50LPL52 | ER5-52 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 667 | Roof | 2046ER50LPL53 | ER5-53 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 668 | Roof | 2046ER50LPL54 | ER5-54 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 669 | Roof | 2046ER50LPL55 | ER5-55 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 670 | Roof | 2046ER50LPL56 | ER5-56 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 671 | Roof | 2046ER50LPL57 | ER5-57 | PL15*100 | 1 | 10.01 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 15/01/2015 | 23 |
| 672 | Roof | 2046ER50LPL58 | ER5-58 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 673 | Roof | 2046ER50LPL59 | ER5-59 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 674 | Roof | 2046ER50LPL60 | ER5-60 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 675 | Roof | 2046ER50LPL61 | ER5-61 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 676 | Roof | 2046ER50LPL62 | ER5-62 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 677 | Roof | 2046ER50LPL63 | ER5-63 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 678 | Roof | 2046ER50LPL64 | ER5-64 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 679 | Roof | 2046ER50LPL65 | ER5-65 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 680 | Roof | 2046ER50LPL66 | ER5-66 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 681 | Roof | 2046ER50LPL67 | ER5-67 | PL10*190 | 1 | 7.76 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 682 | Roof | 2046ER50LPL68 | ER5-68 | PL10*330 | 1 | 10.62 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/03/2015 | 50 |
| 683 | Roof | 2046ER50LPL69 | ER5-69 | PL10*330 | 1 | 10.62 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 684 | Roof | 2046ER50LPL70 | ER5-70 | PL10*330 | 1 | 10.62 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 685 | Roof | 2046ER50LPL71 | ER5-71 | PL10*330 | 1 | 10.62 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/03/2015 | 47 |
| 686 | Roof | 2046ER50LPL72 | ER5-72 | FPL20*170 | 1 | 12.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 687 | Roof | 2046ER50LPL75 | ER5-75 | PL35*300 | 1 | 124.16 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 688 | Roof | 2046ER50LPL76 | ER5-76 | PL35*300 | 1 | 124.16 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 689 | Roof | 2046ER50LPL77 | ER5-77 | PL35*300 | 1 | 122.81 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 690 | Roof | 2046ER50LPL78 | ER5-78 | PL35*300 | 1 | 122.81 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 691 | Roof | 2046ER50LPL79 | ER5-79 | PL35*300 | 1 | 122.81 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 692 | Roof | 2046ER50LPL80 | ER5-80 | PL35*300 | 1 | 122.81 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 693 | Roof | 2046ER50LPL81 | ER5-81 | PL35*300 | 1 | 124.16 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 694 | Roof | 2046ER50LPL82 | ER5-82 | PL35*300 | 1 | 124.16 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 695 | Roof | 2046ER50LPL83 | ER5-83 | PL25*972.2 | 1 | 218.55 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 696 | Roof | 2046ER50LPL84 | ER5-84 | PL25*972.2 | 1 | 218.55 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 697 | Roof | 2046ER50LPL85 | ER5-85 | PL25*972.2 | 1 | 218.55 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 698 | Roof | 2046ER50LPL86 | ER5-86 | PL25*972.2 | 1 | 218.55 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 699 | Roof | 2046ER50LPL87 | ER5-87 | PL25*1035.4 | 1 | 232.92 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 700 | Roof | 2046ER50LPL88 | ER5-88 | PL25*1035.4 | 1 | 232.92 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 701 | Roof | 2046ER50LPL89 | ER5-89 | PL25*1035.4 | 1 | 232.92 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 702 | Roof | 2046ER50LPL90 | ER5-90 | PL25*1035.4 | 1 | 232.92 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 22/01/2015 | 25 |
| 703 | Roof | 2046ER50LPL107 | ER5-107 | PL25*1419.4 | 1 | 271.99 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 704 | Roof | 2046ER50LPL108 | ER5-108 | PL25*1419.4 | 1 | 271.99 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 705 | Roof | 2046ER50LPL109 | ER5-109 | PL25*1419.4 | 1 | 271.99 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/02/2015 | 32 |
| 706 | Roof | 2046ER50LPL110 | ER5-110 | PL25*1419.4 | 1 | 271.99 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 13/02/2015 | 36 |
| 707 | Roof | 2046ER50LPL115 | ER5-115 | PL10*200 | 1 | 7.70 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 708 | Roof | 2046ER50LPL116 | ER5-116 | PL10*200 | 1 | 7.70 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 709 | Roof | 2046ER50LPL117 | ER5-117 | PL10*200 | 1 | 7.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 710 | Roof | 2046ER50LPL118 | ER5-118 | PL10*200 | 1 | 7.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 711 | Roof | 2046ER50LPL119 | ER5-119 | PL10*200 | 1 | 7.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 712 | Roof | 2046ER50LPL120 | ER5-120 | PL10*200 | 1 | 7.69 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 713 | Roof | 2046ER50LPL121 | ER5-121 | PL10*200 | 1 | 7.70 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 714 | Roof | 2046ER50LPL122 | ER5-122 | PL10*200 | 1 | 7.70 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/03/2015 | 46 |
| 715 | Roof | 2046ER50LPR23 | ER5-23 | HEB320 | 1 | 1011.05 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 06/02/2015 | 32 |
| 716 | Roof | 2046ER50LPR24 | ER5-24 | HEB320 | 1 | 1011.05 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 01/08/2015 | 166 |
| 717 | Roof | 2046ER50LPR26 | ER5-26 | HEB320 | 1 | 1011.05 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 04/02/2015 | 31 |
| 718 | Roof | 2046ER50LPR27 | ER5-27 | HEB320 | 1 | 1011.05 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 10/02/2015 | 34 |
| 719 | Roof | 2046ER50V73 | ER5-73 | PL45*981.8 | 1 | 429.79 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 720 | Roof | 2046ER50V74 | ER5-74 | PL45*981.8 | 1 | 429.79 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 10/11/2014 | 23/02/2015 | 41 |
| 721 | Roof | 2046IR50B7 | IR5-7 | HEA300 | 1 | 612.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 722 | Roof | 2046IR50B8 | IR5-8 | HEA300 | 1 | 686.30 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 723 | Roof | 2046IR50B9 | IR5-9 | HEA300 | 1 | 696.68 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 10/03/2015 | 49 |
| 724 | Roof | 2046IR50B10 | IR5-10 | HEA300 | 1 | 782.87 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 725 | Roof | 2046IR50B11 | IR5-11 | HEA300 | 1 | 702.17 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 726 | Roof | 2046IR50B12 | IR5-12 | HEA300 | 1 | 686.30 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 727 | Roof | 2046IR50B13 | IR5-13 | HEA300 | 1 | 612.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 10/03/2015 | 49 |
| 728 | Roof | 2046IR50B14 | IR5-14 | HEA300 | 1 | 822.51 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 729 | Roof | 2046IR50B15 | IR5-15 | HEA300 | 1 | 822.51 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 730 | Roof | 2046IR50B17 | IR5-17 | HEB320 | 1 | 1303.75 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 08/04/2015 | 63 |
| 731 | Roof | 2046IR50B18 | IR5-18 | HEB320 | 1 | 1303.75 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 08/04/2015 | 63 |
| 732 | Roof | 2046IR50B20 | IR5-20 | HEB320 | 1 | 1637.27 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 09/03/2015 | 48 |
| 733 | Roof | 2046IR50B21 | IR5-21 | HEB320 | 1 | 1674.55 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 52 |
| 734 | Roof | 2046IR50B22 | IR5-22 | HEB320 | 1 | 1637.27 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 09/03/2015 | 48 |
| 735 | Roof | 2046IR50B25 | IR5-25 | HEB320 | 1 | 819.63 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 20/04/2015 | 73 |
| 736 | Roof | 2046IR50LPL28 | IR5-28 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 737 | Roof | 2046IR50LPL29 | IR5-29 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 738 | Roof | 2046IR50LPL30 | IR5-30 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 739 | Roof | 2046IR50LPL31 | IR5-31 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 740 | Roof | 2046IR50LPL32 | IR5-32 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 741 | Roof | 2046IR50LPL33 | IR5-33 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 742 | Roof | 2046IR50LPL34 | IR5-34 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 743 | Roof | 2046IR50LPL35 | IR5-35 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 744 | Roof | 2046IR50LPL36 | IR5-36 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 745 | Roof | 2046IR50LPL37 | IR5-37 | PL15*290 | 1 | 29.03 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 746 | Roof | 2046IR50LPL38 | IR5-38 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 747 | Roof | 2046IR50LPL39 | IR5-39 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 748 | Roof | 2046IR50LPL40 | IR5-40 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 749 | Roof | 2046IR50LPL41 | IR5-41 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 750 | Roof | 2046IR50LPL42 | IR5-42 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 751 | Roof | 2046IR50LPL43 | IR5-43 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 752 | Roof | 2046IR50LPL44 | IR5-44 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 753 | Roof | 2046IR50LPL45 | IR5-45 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 754 | Roof | 2046IR50LPL46 | IR5-46 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 755 | Roof | 2046IR50LPL47 | IR5-47 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 756 | Roof | 2046IR50LPL48 | IR5-48 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 757 | Roof | 2046IR50LPL49 | IR5-49 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 758 | Roof | 2046IR50LPL50 | IR5-50 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 759 | Roof | 2046IR50LPL51 | IR5-51 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 760 | Roof | 2046IR50LPL52 | IR5-52 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 761 | Roof | 2046IR50LPL53 | IR5-53 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 762 | Roof | 2046IR50LPL54 | IR5-54 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 763 | Roof | 2046IR50LPL55 | IR5-55 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 764 | Roof | 2046IR50LPL56 | IR5-56 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 765 | Roof | 2046IR50LPL57 | IR5-57 | PL15*100 | 1 | 10.01 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 766 | Roof | 2046IR50LPL58 | IR5-58 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 01/08/2015 | 166 |
| 767 | Roof | 2046IR50LPL59 | IR5-59 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 768 | Roof | 2046IR50LPL60 | IR5-60 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 769 | Roof | 2046IR50LPL61 | IR5-61 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 770 | Roof | 2046IR50LPL62 | IR5-62 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 771 | Roof | 2046IR50LPL63 | IR5-63 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 772 | Roof | 2046IR50LPL64 | IR5-64 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 773 | Roof | 2046IR50LPL65 | IR5-65 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 774 | Roof | 2046IR50LPL66 | IR5-66 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 775 | Roof | 2046IR50LPL67 | IR5-67 | PL10*190 | 1 | 7.76 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 776 | Roof | 2046IR50LPL68 | IR5-68 | PL10*330 | 1 | 10.62 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 777 | Roof | 2046IR50LPL69 | IR5-69 | PL10*330 | 1 | 10.62 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 778 | Roof | 2046IR50LPL70 | IR5-70 | PL10*330 | 1 | 10.62 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 779 | Roof | 2046IR50LPL71 | IR5-71 | PL10*330 | 1 | 10.62 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 780 | Roof | 2046IR50LPL74 | IR5-74 | FPL20*170 | 1 | 12.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 08/04/2015 | 63 |
| 781 | Roof | 2046IR50LPL75 | IR5-75 | PL35*300 | 1 | 122.81 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 782 | Roof | 2046IR50LPL78 | IR5-78 | PL35*300 | 1 | 122.81 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 783 | Roof | 2046IR50LPL81 | IR5-81 | PL35*300 | 1 | 122.81 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 784 | Roof | 2046IR50LPL82 | IR5-82 | PL35*300 | 1 | 122.81 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 785 | Roof | 2046IR50LPL83 | IR5-83 | PL30*972.2 | 1 | 262.26 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 786 | Roof | 2046IR50LPL85 | IR5-85 | PL30*972.2 | 1 | 262.26 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 787 | Roof | 2046IR50LPL87 | IR5-87 | PL25*1035.4 | 1 | 232.92 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 788 | Roof | 2046IR50LPL88 | IR5-88 | PL25*1035.4 | 1 | 232.92 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 789 | Roof | 2046IR50LPL89 | IR5-89 | PL25*1035.4 | 1 | 232.92 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 790 | Roof | 2046IR50LPL90 | IR5-90 | PL25*1035.4 | 1 | 232.92 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 791 | Roof | 2046IR50LPL107 | IR5-107 | PL25*1419.4 | 1 | 271.99 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 792 | Roof | 2046IR50LPL108 | IR5-108 | PL25*1419.4 | 1 | 271.99 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 793 | Roof | 2046IR50LPL109 | IR5-109 | PL25*1419.4 | 1 | 271.99 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 794 | Roof | 2046IR50LPL110 | IR5-110 | PL25*1419.4 | 1 | 271.99 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 13/03/2015 | 50 |
| 795 | Roof | 2046IR50LPL119 | IR5-119 | PL10*200 | 1 | 7.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 796 | Roof | 2046IR50LPL120 | IR5-120 | PL10*200 | 1 | 7.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 797 | Roof | 2046IR50LPL121 | IR5-121 | PL10*200 | 1 | 7.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 798 | Roof | 2046IR50LPL122 | IR5-122 | PL10*200 | 1 | 7.69 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 04/03/2015 | 46 |
| 799 | Roof | 2046IR50LPR23 | IR5-23 | HEB320 | 1 | 1011.05 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 01/08/2015 | 166 |
| 800 | Roof | 2046IR50LPR24 | IR5-24 | HEB320 | 1 | 1011.05 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 28/01/2015 | 28 |
| 801 | Roof | 2046IR50LPR26 | IR5-26 | HEB320 | 1 | 1011.05 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 28/01/2015 | 28 |
| 802 | Roof | 2046IR50LPR27 | IR5-27 | HEB320 | 1 | 1011.05 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 28/01/2015 | 28 |
| 803 | Roof | 2046IR50V72 | IR5-72 | PL60*981.8 | 1 | 567.95 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 804 | Roof | 2046IR50V73 | IR5-73 | PL60*981.8 | 1 | 630.52 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 805 | Roof | 2046IR50V84 | IR5-84 | PL30*972.2 | 1 | 316.96 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 806 | Roof | 2046IR50V86 | IR5-86 | PL30*972.2 | 1 | 316.96 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 13/01/2015 | 18/03/2015 | 53 |
| 807 | Roof | 2046FR50B2 | FR5-2 | SHS300*10 | 1 | 949.73 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 20/03/2015 | 54 |
| 808 | Roof | 2046FR50B3 | FR5-3 | SHS300*10 | 1 | 949.73 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 809 | Roof | 2046FR50B7 | FR5-7 | HEA300 | 1 | 612.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 52 |
| 810 | Roof | 2046FR50B8 | FR5-8 | HEA300 | 1 | 696.68 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 53 |
| 811 | Roof | 2046FR50B9 | FR5-9 | HEA300 | 1 | 736.04 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 52 |
| 812 | Roof | 2046FR50B10 | FR5-10 | HEA300 | 1 | 822.51 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 813 | Roof | 2046FR50B11 | FR5-11 | HEA300 | 1 | 822.51 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/03/2015 | 48 |
| 814 | Roof | 2046FR50B12 | FR5-12 | HEA300 | 1 | 702.17 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 53 |
| 815 | Roof | 2046FR50B13 | FR5-13 | HEA300 | 1 | 641.61 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 53 |
| 816 | Roof | 2046FR50B14 | FR5-14 | HEA300 | 1 | 612.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 53 |
| 817 | Roof | 2046FR50B15 | FR5-15 | HEA300 | 1 | 641.61 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 818 | Roof | 2046FR50B16 | FR5-16 | HEB320 | 1 | 1718.30 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 819 | Roof | 2046FR50B17 | FR5-17 | HEB320 | 1 | 1271.28 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 20/04/2015 | 73 |
| 820 | Roof | 2046FR50B18 | FR5-18 | HEB320 | 1 | 1271.28 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 20/03/2015 | 54 |
| 821 | Roof | 2046FR50B19 | FR5-19 | HEB320 | 1 | 1718.30 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 822 | Roof | 2046FR50B20 | FR5-20 | HEB320 | 1 | 1583.97 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 823 | Roof | 2046FR50B21 | FR5-21 | HEB320 | 1 | 1608.94 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 20/03/2015 | 54 |
| 824 | Roof | 2046FR50B22 | FR5-22 | HEB320 | 1 | 1583.97 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 20/03/2015 | 54 |
| 825 | Roof | 2046FR50B25 | FR5-25 | HEB320 | 1 | 807.32 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 826 | Roof | 2046FR50LPL28 | FR5-28 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 827 | Roof | 2046FR50LPL29 | FR5-29 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 828 | Roof | 2046FR50LPL30 | FR5-30 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 829 | Roof | 2046FR50LPL31 | FR5-31 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 830 | Roof | 2046FR50LPL32 | FR5-32 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 831 | Roof | 2046FR50LPL33 | FR5-33 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 832 | Roof | 2046FR50LPL34 | FR5-34 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 833 | Roof | 2046FR50LPL35 | FR5-35 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 834 | Roof | 2046FR50LPL36 | FR5-36 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 835 | Roof | 2046FR50LPL37 | FR5-37 | PL15*290 | 1 | 29.03 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 836 | Roof | 2046FR50LPL38 | FR5-38 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 837 | Roof | 2046FR50LPL39 | FR5-39 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 838 | Roof | 2046FR50LPL40 | FR5-40 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 839 | Roof | 2046FR50LPL41 | FR5-41 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 840 | Roof | 2046FR50LPL42 | FR5-42 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 841 | Roof | 2046FR50LPL43 | FR5-43 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 842 | Roof | 2046FR50LPL44 | FR5-44 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 843 | Roof | 2046FR50LPL45 | FR5-45 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 844 | Roof | 2046FR50LPL46 | FR5-46 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 845 | Roof | 2046FR50LPL47 | FR5-47 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 846 | Roof | 2046FR50LPL48 | FR5-48 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 847 | Roof | 2046FR50LPL49 | FR5-49 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 848 | Roof | 2046FR50LPL50 | FR5-50 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 849 | Roof | 2046FR50LPL51 | FR5-51 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 850 | Roof | 2046FR50LPL52 | FR5-52 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 851 | Roof | 2046FR50LPL53 | FR5-53 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 852 | Roof | 2046FR50LPL54 | FR5-54 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 853 | Roof | 2046FR50LPL55 | FR5-55 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 854 | Roof | 2046FR50LPL56 | FR5-56 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 855 | Roof | 2046FR50LPL57 | FR5-57 | PL15*100 | 1 | 10.01 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 856 | Roof | 2046FR50LPL58 | FR5-58 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 857 | Roof | 2046FR50LPL59 | FR5-59 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 858 | Roof | 2046FR50LPL60 | FR5-60 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 859 | Roof | 2046FR50LPL61 | FR5-61 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 860 | Roof | 2046FR50LPL62 | FR5-62 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 861 | Roof | 2046FR50LPL63 | FR5-63 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 862 | Roof | 2046FR50LPL64 | FR5-64 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 863 | Roof | 2046FR50LPL65 | FR5-65 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 864 | Roof | 2046FR50LPL66 | FR5-66 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 865 | Roof | 2046FR50LPL67 | FR5-67 | PL10*190 | 1 | 7.76 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 866 | Roof | 2046FR50LPL68 | FR5-68 | PL10*330 | 1 | 10.62 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 867 | Roof | 2046FR50LPL69 | FR5-69 | PL10*330 | 1 | 10.62 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 01/08/2015 | 166 |
| 868 | Roof | 2046FR50LPL70 | FR5-70 | PL10*330 | 1 | 10.62 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 869 | Roof | 2046FR50LPL71 | FR5-71 | PL10*330 | 1 | 10.62 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |

Table A3-04: Schedule of Roof Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 870 | Roof | 2046FR50LPL72 | FR5-72 | FPL20*170 | 1 | 12.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 871 | Roof | 2046FR50LPL75 | FR5-75 | PL35*300 | 1 | 124.16 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 872 | Roof | 2046FR50LPL76 | FR5-76 | PL35*300 | 1 | 124.16 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 873 | Roof | 2046FR50LPL77 | FR5-77 | PL35*300 | 1 | 122.81 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 874 | Roof | 2046FR50LPL78 | FR5-78 | PL35*300 | 1 | 122.81 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 875 | Roof | 2046FR50LPL79 | FR5-79 | PL35*300 | 1 | 122.81 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 876 | Roof | 2046FR50LPL80 | FR5-80 | PL35*300 | 1 | 122.81 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 877 | Roof | 2046FR50LPL81 | FR5-81 | PL35*300 | 1 | 124.16 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 878 | Roof | 2046FR50LPL82 | FR5-82 | PL35*300 | 1 | 124.16 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 879 | Roof | 2046FR50LPL83 | FR5-83 | PL25*972.2 | 1 | 218.55 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 880 | Roof | 2046FR50LPL84 | FR5-84 | PL25*972.2 | 1 | 218.55 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 881 | Roof | 2046FR50LPL85 | FR5-85 | PL25*972.2 | 1 | 218.55 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 882 | Roof | 2046FR50LPL86 | FR5-86 | PL25*972.2 | 1 | 218.55 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 883 | Roof | 2046FR50LPL87 | FR5-87 | PL25*1035.4 | 1 | 232.92 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 884 | Roof | 2046FR50LPL88 | FR5-88 | PL25*1035.4 | 1 | 232.92 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 885 | Roof | 2046FR50LPL89 | FR5-89 | PL25*1035.4 | 1 | 232.92 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 886 | Roof | 2046FR50LPL90 | FR5-90 | PL25*1035.4 | 1 | 232.92 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 887 | Roof | 2046FR50LPL107 | FR5-107 | PL25*1419.4 | 1 | 271.99 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 888 | Roof | 2046FR50LPL108 | FR5-108 | PL25*1419.4 | 1 | 271.99 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 889 | Roof | 2046FR50LPL109 | FR5-109 | PL25*1419.4 | 1 | 271.99 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 890 | Roof | 2046FR50LPL110 | FR5-110 | PL25*1419.4 | 1 | 271.99 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 891 | Roof | 2046FR50LPL115 | FR5-115 | PL10*200 | 1 | 7.70 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 892 | Roof | 2046FR50LPL116 | FR5-116 | PL10*200 | 1 | 7.70 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 893 | Roof | 2046FR50LPL117 | FR5-117 | PL10*200 | 1 | 7.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 894 | Roof | 2046FR50LPL118 | FR5-118 | PL10*200 | 1 | 7.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 895 | Roof | 2046FR50LPL119 | FR5-119 | PL10*200 | 1 | 7.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 896 | Roof | 2046FR50LPL120 | FR5-120 | PL10*200 | 1 | 7.69 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 897 | Roof | 2046FR50LPL121 | FR5-121 | PL10*200 | 1 | 7.70 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 898 | Roof | 2046FR50LPL122 | FR5-122 | PL10*200 | 1 | 7.70 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 899 | Roof | 2046FR50LPR23 | FR5-23 | HEB320 | 1 | 1011.05 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 900 | Roof | 2046FR50LPR24 | FR5-24 | HEB320 | 1 | 1011.05 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/02/2015 | 31 |
| 901 | Roof | 2046FR50LPR26 | FR5-26 | HEB320 | 1 | 1011.05 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/02/2015 | 31 |
| 902 | Roof | 2046FR50LPR27 | FR5-27 | HEB320 | 1 | 1011.05 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 903 | Roof | 2046FR50V73 | FR5-73 | PL45*981.8 | 1 | 429.79 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 25/02/2015 | 43 |
| 904 | Roof | 2046FR50V74 | FR5-74 | PL45*981.8 | 1 | 429.79 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 25/02/2015 | 43 |
| 905 | Roof | 2046GR50B2 | GR5-2 | SHS300*10 | 1 | 949.73 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/03/2015 | 48 |
| 906 | Roof | 2046GR50B3 | GR5-3 | SHS300*10 | 1 | 949.73 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 907 | Roof | 2046GR50B7 | GR5-7 | HEA300 | 1 | 612.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 908 | Roof | 2046GR50B8 | GR5-8 | HEA300 | 1 | 641.61 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 909 | Roof | 2046GR50B9 | GR5-9 | HEA300 | 1 | 696.68 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 910 | Roof | 2046GR50B10 | GR5-10 | HEA300 | 1 | 736.04 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 08/04/2015 | 63 |
| 911 | Roof | 2046GR50B11 | GR5-11 | HEA300 | 1 | 822.51 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 53 |
| 912 | Roof | 2046GR50B12 | GR5-12 | HEA300 | 1 | 822.51 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 25/03/2015 | 56 |
| 913 | Roof | 2046GR50B13 | GR5-13 | HEA300 | 1 | 702.17 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 914 | Roof | 2046GR50B14 | GR5-14 | HEA300 | 1 | 641.61 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 915 | Roof | 2046GR50B15 | GR5-15 | HEA300 | 1 | 612.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 916 | Roof | 2046GR50B16 | GR5-16 | HEB320 | 1 | 1583.97 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 917 | Roof | 2046GR50B17 | GR5-17 | HEB320 | 1 | 1608.94 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 918 | Roof | 2046GR50B18 | GR5-18 | HEB320 | 1 | 1583.97 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 52 |
| 919 | Roof | 2046GR50B19 | GR5-19 | HEB320 | 1 | 1701.50 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 17/04/2015 | 71 |
| 920 | Roof | 2046GR50B20 | GR5-20 | HEB320 | 1 | 1271.28 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 52 |
| 921 | Roof | 2046GR50B21 | GR5-21 | HEB320 | 1 | 1271.28 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 922 | Roof | 2046GR50B22 | GR5-22 | HEB320 | 1 | 1701.50 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 923 | Roof | 2046GR50B25 | GR5-25 | HEB320 | 1 | 807.32 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 924 | Roof | 2046GR50LPL28 | GR5-28 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 925 | Roof | 2046GR50LPL29 | GR5-29 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 926 | Roof | 2046GR50LPL30 | GR5-30 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 927 | Roof | 2046GR50LPL31 | GR5-31 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 928 | Roof | 2046GR50LPL32 | GR5-32 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 929 | Roof | 2046GR50LPL33 | GR5-33 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 930 | Roof | 2046GR50LPL34 | GR5-34 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 931 | Roof | 2046GR50LPL35 | GR5-35 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 932 | Roof | 2046GR50LPL36 | GR5-36 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 933 | Roof | 2046GR50LPL37 | GR5-37 | PL15*290 | 1 | 29.03 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 934 | Roof | 2046GR50LPL38 | GR5-38 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 935 | Roof | 2046GR50LPL39 | GR5-39 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 936 | Roof | 2046GR50LPL40 | GR5-40 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 937 | Roof | 2046GR50LPL41 | GR5-41 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 938 | Roof | 2046GR50LPL42 | GR5-42 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 939 | Roof | 2046GR50LPL43 | GR5-43 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 940 | Roof | 2046GR50LPL44 | GR5-44 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 941 | Roof | 2046GR50LPL45 | GR5-45 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 942 | Roof | 2046GR50LPL46 | GR5-46 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 943 | Roof | 2046GR50LPL47 | GR5-47 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 944 | Roof | 2046GR50LPL48 | GR5-48 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 945 | Roof | 2046GR50LPL49 | GR5-49 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 946 | Roof | 2046GR50LPL50 | GR5-50 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 947 | Roof | 2046GR50LPL51 | GR5-51 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 948 | Roof | 2046GR50LPL52 | GR5-52 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 949 | Roof | 2046GR50LPL53 | GR5-53 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 950 | Roof | 2046GR50LPL54 | GR5-54 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 951 | Roof | 2046GR50LPL55 | GR5-55 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 952 | Roof | 2046GR50LPL56 | GR5-56 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 953 | Roof | 2046GR50LPL57 | GR5-57 | PL15*100 | 1 | 10.01 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 954 | Roof | 2046GR50LPL58 | GR5-58 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 955 | Roof | 2046GR50LPL59 | GR5-59 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 956 | Roof | 2046GR50LPL60 | GR5-60 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 957 | Roof | 2046GR50LPL61 | GR5-61 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 958 | Roof | 2046GR50LPL62 | GR5-62 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 959 | Roof | 2046GR50LPL63 | GR5-63 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 960 | Roof | 2046GR50LPL64 | GR5-64 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 961 | Roof | 2046GR50LPL65 | GR5-65 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 962 | Roof | 2046GR50LPL66 | GR5-66 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 963 | Roof | 2046GR50LPL67 | GR5-67 | PL10*190 | 1 | 7.76 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 964 | Roof | 2046GR50LPL68 | GR5-68 | PL10*330 | 1 | 10.62 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 965 | Roof | 2046GR50LPL69 | GR5-69 | PL10*330 | 1 | 10.62 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 966 | Roof | 2046GR50LPL70 | GR5-70 | PL10*330 | 1 | 10.62 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 967 | Roof | 2046GR50LPL71 | GR5-71 | PL10*330 | 1 | 10.62 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 968 | Roof | 2046GR50LPL72 | GR5-72 | FPL20*170 | 1 | 12.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 969 | Roof | 2046GR50LPL75 | GR5-75 | PL35*300 | 1 | 124.16 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 970 | Roof | 2046GR50LPL76 | GR5-76 | PL35*300 | 1 | 124.16 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 971 | Roof | 2046GR50LPL77 | GR5-77 | PL35*300 | 1 | 122.81 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 972 | Roof | 2046GR50LPL78 | GR5-78 | PL35*300 | 1 | 122.81 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 973 | Roof | 2046GR50LPL79 | GR5-79 | PL35*300 | 1 | 122.81 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 974 | Roof | 2046GR50LPL80 | GR5-80 | PL35*300 | 1 | 122.81 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 975 | Roof | 2046GR50LPL81 | GR5-81 | PL35*300 | 1 | 124.16 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 976 | Roof | 2046GR50LPL82 | GR5-82 | PL35*300 | 1 | 124.16 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 977 | Roof | 2046GR50LPL83 | GR5-83 | PL25*972.2 | 1 | 218.55 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 978 | Roof | 2046GR50LPL84 | GR5-84 | PL25*972.2 | 1 | 218.55 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 979 | Roof | 2046GR50LPL85 | GR5-85 | PL25*972.2 | 1 | 218.55 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 980 | Roof | 2046GR50LPL86 | GR5-86 | PL25*972.2 | 1 | 218.55 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 981 | Roof | 2046GR50LPL87 | GR5-87 | PL25*1035.4 | 1 | 232.92 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 01/08/2015 | 166 |
| 982 | Roof | 2046GR50LPL88 | GR5-88 | PL25*1035.4 | 1 | 232.92 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 983 | Roof | 2046GR50LPL89 | GR5-89 | PL25*1035.4 | 1 | 232.92 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 984 | Roof | 2046GR50LPL90 | GR5-90 | PL25*1035.4 | 1 | 232.92 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 985 | Roof | 2046GR50LPL107 | GR5-107 | PL25*1419.4 | 1 | 271.99 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 986 | Roof | 2046GR50LPL108 | GR5-108 | PL25*1419.4 | 1 | 271.99 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 987 | Roof | 2046GR50LPL109 | GR5-109 | PL25*1419.4 | 1 | 271.99 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 988 | Roof | 2046GR50LPL110 | GR5-110 | PL25*1419.4 | 1 | 271.99 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 02/03/2015 | 45 |
| 989 | Roof | 2046GR50LPL115 | GR5-115 | PL10*200 | 1 | 7.70 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 990 | Roof | 2046GR50LPL116 | GR5-116 | PL10*200 | 1 | 7.70 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 991 | Roof | 2046GR50LPL117 | GR5-117 | PL10*200 | 1 | 7.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 992 | Roof | 2046GR50LPL118 | GR5-118 | PL10*200 | 1 | 7.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 993 | Roof | 2046GR50LPL119 | GR5-119 | PL10*200 | 1 | 7.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 994 | Roof | 2046GR50LPL120 | GR5-120 | PL10*200 | 1 | 7.69 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 995 | Roof | 2046GR50LPL121 | GR5-121 | PL10*200 | 1 | 7.70 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 996 | Roof | 2046GR50LPL122 | GR5-122 | PL10*200 | 1 | 7.70 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 997 | Roof | 2046GR50LPR23 | GR5-23 | HEB320 | 1 | 1011.05 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 998 | Roof | 2046GR50LPR24 | GR5-24 | HEB320 | 1 | 1011.05 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 28/01/2015 | 28 |
| 999 | Roof | 2046GR50LPR26 | GR5-26 | HEB320 | 1 | 1011.05 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/02/2015 | 32 |
| 1000 | Roof | 2046GR50LPR27 | GR5-27 | HEB320 | 1 | 1011.05 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 1001 | Roof | 2046GR50V73 | GR5-73 | PL45*981.8 | 1 | 429.79 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 25/02/2015 | 43 |
| 1002 | Roof | 2046GR50V74 | GR5-74 | PL45*981.8 | 1 | 429.79 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 1003 | Roof | 2046HR50B1 | HR5-1 | SHS300*10 | 1 | 949.73 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 52 |
| 1004 | Roof | 2046HR50B3 | HR5-3 | SHS300*10 | 1 | 949.73 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 24/02/2015 | 42 |
| 1005 | Roof | 2046HR50B7 | HR5-7 | HEA300 | 1 | 612.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 1006 | Roof | 2046HR50B8 | HR5-8 | HEA300 | 1 | 641.61 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1007 | Roof | 2046HR50B9 | HR5-9 | HEA300 | 1 | 696.68 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 53 |
| 1008 | Roof | 2046HR50B10 | HR5-10 | HEA300 | 1 | 736.04 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 18/03/2015 | 52 |
| 1009 | Roof | 2046HR50B11 | HR5-11 | HEA300 | 1 | 702.17 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1010 | Roof | 2046HR50B12 | HR5-12 | HEA300 | 1 | 641.61 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 1011 | Roof | 2046HR50B13 | HR5-13 | HEA300 | 1 | 612.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 1012 | Roof | 2046HR50B14 | HR5-14 | HEA300 | 1 | 822.51 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1013 | Roof | 2046HR50B15 | HR5-15 | HEA300 | 1 | 822.51 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 1014 | Roof | 2046HR50B16 | HR5-16 | HEB320 | 1 | 1598.93 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 1015 | Roof | 2046HR50B17 | HR5-17 | HEB320 | 1 | 1636.20 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 10/03/2015 | 49 |
| 1016 | Roof | 2046HR50B18 | HR5-18 | HEB320 | 1 | 1598.93 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/03/2015 | 48 |
| 1017 | Roof | 2046HR50B19 | HR5-19 | HEB320 | 1 | 1717.08 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 17/04/2015 | 71 |
| 1018 | Roof | 2046HR50B20 | HR5-20 | HEB320 | 1 | 1271.28 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 17/04/2015 | 71 |
| 1019 | Roof | 2046HR50B21 | HR5-21 | HEB320 | 1 | 1271.28 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 20/03/2015 | 54 |
| 1020 | Roof | 2046HR50B22 | HR5-22 | HEB320 | 1 | 1717.08 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 09/04/2015 | 64 |
| 1021 | Roof | 2046HR50B25 | HR5-25 | HEB320 | 1 | 819.63 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1022 | Roof | 2046HR50LPL28 | HR5-28 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1023 | Roof | 2046HR50LPL29 | HR5-29 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1024 | Roof | 2046HR50LPL30 | HR5-30 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1025 | Roof | 2046HR50LPL31 | HR5-31 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1026 | Roof | 2046HR50LPL32 | HR5-32 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1027 | Roof | 2046HR50LPL33 | HR5-33 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |

## Table A3-04: Schedule of Roof Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1028 | Roof | 2046HR50LPL34 | HR5-34 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1029 | Roof | 2046HR50LPL35 | HR5-35 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1030 | Roof | 2046HR50LPL36 | HR5-36 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1031 | Roof | 2046HR50LPL37 | HR5-37 | PL15*290 | 1 | 29.03 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1032 | Roof | 2046HR50LPL38 | HR5-38 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1033 | Roof | 2046HR50LPL39 | HR5-39 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1034 | Roof | 2046HR50LPL40 | HR5-40 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1035 | Roof | 2046HR50LPL41 | HR5-41 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1036 | Roof | 2046HR50LPL42 | HR5-42 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1037 | Roof | 2046HR50LPL43 | HR5-43 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1038 | Roof | 2046HR50LPL44 | HR5-44 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1039 | Roof | 2046HR50LPL45 | HR5-45 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1040 | Roof | 2046HR50LPL46 | HR5-46 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1041 | Roof | 2046HR50LPL47 | HR5-47 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1042 | Roof | 2046HR50LPL48 | HR5-48 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1043 | Roof | 2046HR50LPL49 | HR5-49 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1044 | Roof | 2046HR50LPL50 | HR5-50 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 01/08/2015 | 166 |
| 1045 | Roof | 2046HR50LPL51 | HR5-51 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1046 | Roof | 2046HR50LPL52 | HR5-52 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1047 | Roof | 2046HR50LPL53 | HR5-53 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1048 | Roof | 2046HR50LPL54 | HR5-54 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1049 | Roof | 2046HR50LPL55 | HR5-55 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1050 | Roof | 2046HR50LPL56 | HR5-56 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1051 | Roof | 2046HR50LPL57 | HR5-57 | PL15*100 | 1 | 10.01 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/03/2015 | 50 |
| 1052 | Roof | 2046HR50LPL58 | HR5-58 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1053 | Roof | 2046HR50LPL59 | HR5-59 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1054 | Roof | 2046HR50LPL60 | HR5-60 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1055 | Roof | 2046HR50LPL61 | HR5-61 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1056 | Roof | 2046HR50LPL62 | HR5-62 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1057 | Roof | 2046HR50LPL63 | HR5-63 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1058 | Roof | 2046HR50LPL64 | HR5-64 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1059 | Roof | 2046HR50LPL65 | HR5-65 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1060 | Roof | 2046HR50LPL66 | HR5-66 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1061 | Roof | 2046HR50LPL67 | HR5-67 | PL10*190 | 1 | 7.76 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1062 | Roof | 2046HR50LPL68 | HR5-68 | PL10*330 | 1 | 10.62 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 27/03/2015 | 59 |
| 1063 | Roof | 2046HR50LPL69 | HR5-69 | PL10*330 | 1 | 10.62 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 08/04/2015 | 63 |
| 1064 | Roof | 2046HR50LPL70 | HR5-70 | PL10*330 | 1 | 10.62 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1065 | Roof | 2046HR50LPL71 | HR5-71 | PL10*330 | 1 | 10.62 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1066 | Roof | 2046HR50LPL72 | HR5-72 | FPL20*170 | 1 | 12.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1067 | Roof | 2046HR50LPL75 | HR5-75 | PL35*300 | 1 | 124.16 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1068 | Roof | 2046HR50LPL76 | HR5-76 | PL35*300 | 1 | 124.16 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1069 | Roof | 2046HR50LPL77 | HR5-77 | PL35*300 | 1 | 122.81 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1070 | Roof | 2046HR50LPL78 | HR5-78 | PL35*300 | 1 | 122.81 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1071 | Roof | 2046HR50LPL79 | HR5-79 | PL35*300 | 1 | 122.81 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1072 | Roof | 2046HR50LPL80 | HR5-80 | PL35*300 | 1 | 122.81 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1073 | Roof | 2046HR50LPL81 | HR5-81 | PL35*300 | 1 | 124.16 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1074 | Roof | 2046HR50LPL82 | HR5-82 | PL35*300 | 1 | 124.16 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1075 | Roof | 2046HR50LPL83 | HR5-83 | PL25*972.2 | 1 | 218.55 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 1076 | Roof | 2046HR50LPL84 | HR5-84 | PL25*972.2 | 1 | 218.55 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 1077 | Roof | 2046HR50LPL85 | HR5-85 | PL25*972.2 | 1 | 218.55 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 1078 | Roof | 2046HR50LPL86 | HR5-86 | PL25*972.2 | 1 | 218.55 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 13/02/2015 | 36 |
| 1079 | Roof | 2046HR50LPL87 | HR5-87 | PL25*1035.4 | 1 | 232.92 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 1080 | Roof | 2046HR50LPL88 | HR5-88 | PL25*1035.4 | 1 | 232.92 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 1081 | Roof | 2046HR50LPL89 | HR5-89 | PL25*1035.4 | 1 | 232.92 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 1082 | Roof | 2046HR50LPL90 | HR5-90 | PL25*1035.4 | 1 | 232.92 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1083 | Roof | 2046HR50LPL107 | HR5-107 | PL25*1419.4 | 1 | 271.99 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1084 | Roof | 2046HR50LPL108 | HR5-108 | PL25*1419.4 | 1 | 271.99 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1085 | Roof | 2046HR50LPL109 | HR5-109 | PL25*1419.4 | 1 | 271.99 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1086 | Roof | 2046HR50LPL110 | HR5-110 | PL25*1419.4 | 1 | 271.99 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/03/2015 | 47 |
| 1087 | Roof | 2046HR50LPL115 | HR5-115 | PL10*200 | 1 | 7.70 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1088 | Roof | 2046HR50LPL116 | HR5-116 | PL10*200 | 1 | 7.70 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1089 | Roof | 2046HR50LPL117 | HR5-117 | PL10*200 | 1 | 7.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1090 | Roof | 2046HR50LPL118 | HR5-118 | PL10*200 | 1 | 7.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1091 | Roof | 2046HR50LPL119 | HR5-119 | PL10*200 | 1 | 7.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1092 | Roof | 2046HR50LPL120 | HR5-120 | PL10*200 | 1 | 7.69 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1093 | Roof | 2046HR50LPL121 | HR5-121 | PL10*200 | 1 | 7.70 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1094 | Roof | 2046HR50LPL122 | HR5-122 | PL10*200 | 1 | 7.70 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 04/03/2015 | 46 |
| 1095 | Roof | 2046HR50LPR23 | HR5-23 | HEB320 | 1 | 1011.05 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 28/01/2015 | 28 |
| 1096 | Roof | 2046HR50LPR24 | HR5-24 | HEB320 | 1 | 1011.05 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 06/02/2015 | 32 |
| 1097 | Roof | 2046HR50LPR26 | HR5-26 | HEB320 | 1 | 1011.05 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 28/01/2015 | 28 |
| 1098 | Roof | 2046HR50LPR27 | HR5-27 | HEB320 | 1 | 1011.05 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 25/02/2015 | 43 |
| 1099 | Roof | 2046HR50V73 | HR5-73 | PL45*981.8 | 1 | 429.79 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 25/02/2015 | 43 |
| 1100 | Roof | 2046HR50V74 | HR5-74 | PL45*981.8 | 1 | 429.79 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 19/12/2014 | 23/02/2015 | 41 |
| 1101 | Roof | 2046JR50B204 | JR5-204 | HEA300 | 1 | 822.51 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 08/07/2015 | 130 |
| 1102 | Roof | 2046JR50B206 | JR5-206 | HEA300 | 1 | 696.68 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |
| 1103 | Roof | 2046JR50B207 | JR5-207 | HEA300 | 1 | 822.51 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |
| 1104 | Roof | 2046JR50B208 | JR5-208 | HEA300 | 1 | 663.96 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |
| 1105 | Roof | 2046JR50B209 | JR5-209 | HEA300 | 1 | 612.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |
| 1106 | Roof | 2046JR50B210 | JR5-210 | HEA300 | 1 | 612.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1107 | Roof | 2046JR50B211 | JR5-211 | HEA300 | 1 | 663.96 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |
| 1108 | Roof | 2046JR50B219 | JR5-219 | HEB320 | 1 | 815.84 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 15/06/2015 | 109 |
| 1109 | Roof | 2046JR50B220 | JR5-220 | HEB320 | 1 | 1705.61 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 08/07/2015 | 130 |
| 1110 | Roof | 2046JR50LPL5 | JR5-5 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1111 | Roof | 2046JR50LPL6 | JR5-6 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1112 | Roof | 2046JR50LPL7 | JR5-7 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1113 | Roof | 2046JR50LPL8 | JR5-8 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1114 | Roof | 2046JR50LPL9 | JR5-9 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1115 | Roof | 2046JR50LPL10 | JR5-10 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1116 | Roof | 2046JR50LPL19 | JR5-19 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1117 | Roof | 2046JR50LPL20 | JR5-20 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1118 | Roof | 2046JR50LPL21 | JR5-21 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1119 | Roof | 2046JR50LPL22 | JR5-22 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1120 | Roof | 2046JR50LPL23 | JR5-23 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1121 | Roof | 2046JR50LPL24 | JR5-24 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1122 | Roof | 2046JR50LPL25 | JR5-25 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1123 | Roof | 2046JR50LPL26 | JR5-26 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1124 | Roof | 2046JR50LPL27 | JR5-27 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1125 | Roof | 2046JR50LPL28 | JR5-28 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1126 | Roof | 2046JR50LPL29 | JR5-29 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1127 | Roof | 2046JR50LPL30 | JR5-30 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/06/2015 | 98 |
| 1128 | Roof | 2046JR50LPL35 | JR5-35 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1129 | Roof | 2046JR50LPL36 | JR5-36 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1130 | Roof | 2046JR50LPL37 | JR5-37 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1131 | Roof | 2046JR50LPL38 | JR5-38 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1132 | Roof | 2046JR50LPL39 | JR5-39 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1133 | Roof | 2046JR50LPL40 | JR5-40 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1134 | Roof | 2046JR50LPL48 | JR5-48 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1135 | Roof | 2046JR50LPL49 | JR5-49 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1136 | Roof | 2046JR50LPL50 | JR5-50 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/08/2015 | 166 |
| 1137 | Roof | 2046JR50LPL51 | JR5-51 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1138 | Roof | 2046JR50LPL54 | JR5-54 | FPL20*170 | 1 | 12.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 105 |
| 1139 | Roof | 2046JR50LPL55 | JR5-55 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1140 | Roof | 2046JR50LPL56 | JR5-56 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1141 | Roof | 2046JR50LPL57 | JR5-57 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1142 | Roof | 2046JR50LPL58 | JR5-58 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1143 | Roof | 2046JR50LPL59 | JR5-59 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1144 | Roof | 2046JR50LPL60 | JR5-60 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1145 | Roof | 2046JR50LPL61 | JR5-61 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1146 | Roof | 2046JR50LPL62 | JR5-62 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1147 | Roof | 2046JR50LPL63 | JR5-63 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1148 | Roof | 2046JR50LPL64 | JR5-64 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1149 | Roof | 2046JR50LPL65 | JR5-65 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1150 | Roof | 2046JR50LPL66 | JR5-66 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1151 | Roof | 2046JR50LPL67 | JR5-67 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1152 | Roof | 2046JR50LPL68 | JR5-68 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1153 | Roof | 2046JR50LPL69 | JR5-69 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1154 | Roof | 2046JR50LPL70 | JR5-70 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1155 | Roof | 2046JR50LPL71 | JR5-71 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1156 | Roof | 2046JR50LPL72 | JR5-72 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1157 | Roof | 2046JR50LPL73 | JR5-73 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1158 | Roof | 2046JR50LPL74 | JR5-74 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1159 | Roof | 2046JR50LPL75 | JR5-75 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1160 | Roof | 2046JR50LPL76 | JR5-76 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1161 | Roof | 2046JR50LPL77 | JR5-77 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1162 | Roof | 2046JR50LPL78 | JR5-78 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1163 | Roof | 2046JR50LPL79 | JR5-79 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1164 | Roof | 2046JR50LPL80 | JR5-80 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1165 | Roof | 2046JR50LPL81 | JR5-81 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1166 | Roof | 2046JR50LPL82 | JR5-82 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1167 | Roof | 2046JR50LPL83 | JR5-83 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1168 | Roof | 2046JR50LPL84 | JR5-84 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1169 | Roof | 2046JR50LPL85 | JR5-85 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1170 | Roof | 2046JR50LPL86 | JR5-86 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1171 | Roof | 2046JR50LPL87 | JR5-87 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1172 | Roof | 2046JR50LPL88 | JR5-88 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1173 | Roof | 2046JR50LPL89 | JR5-89 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1174 | Roof | 2046JR50LPL90 | JR5-90 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1175 | Roof | 2046JR50LPL91 | JR5-91 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1176 | Roof | 2046JR50LPL92 | JR5-92 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1177 | Roof | 2046JR50LPL93 | JR5-93 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1178 | Roof | 2046JR50LPL94 | JR5-94 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1179 | Roof | 2046JR50LPL95 | JR5-95 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1180 | Roof | 2046JR50LPL96 | JR5-96 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1181 | Roof | 2046JR50LPL97 | JR5-97 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1182 | Roof | 2046JR50LPL98 | JR5-98 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1183 | Roof | 2046JR50LPL99 | JR5-99 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1184 | Roof | 2046JR50LPL100 | JR5-100 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1185 | Roof | 2046JR50LPL101 | JR5-101 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1186 | Roof | 2046JR50LPL102 | JR5-102 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1187 | Roof | 2046JR50LPL103 | JR5-103 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1188 | Roof | 2046JR50LPL104 | JR5-104 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1189 | Roof | 2046JR50LPL105 | JR5-105 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1190 | Roof | 2046JR50LPL106 | JR5-106 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 01/08/2015 | 166 |
| 1191 | Roof | 2046JR50LPL107 | JR5-107 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1192 | Roof | 2046JR50LPL108 | JR5-108 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1193 | Roof | 2046JR50LPL109 | JR5-109 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1194 | Roof | 2046JR50LPL110 | JR5-110 | PL10*250 | 1 | 8.44 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1195 | Roof | 2046JR50LPL111 | JR5-111 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1196 | Roof | 2046JR50LPL112 | JR5-112 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1197 | Roof | 2046JR50LPL113 | JR5-113 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1198 | Roof | 2046JR50LPL114 | JR5-114 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1199 | Roof | 2046JR50LPL115 | JR5-115 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1200 | Roof | 2046JR50LPL116 | JR5-116 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1201 | Roof | 2046JR50LPL117 | JR5-117 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1202 | Roof | 2046JR50LPL118 | JR5-118 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1203 | Roof | 2046JR50LPL119 | JR5-119 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1204 | Roof | 2046JR50LPL120 | JR5-120 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1205 | Roof | 2046JR50LPL121 | JR5-121 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1206 | Roof | 2046JR50LPL122 | JR5-122 | PL10*330 | 1 | 10.62 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1207 | Roof | 2046JR50LPL142 | JR5-142 | PL25*972.2 | 1 | 218.55 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1208 | Roof | 2046JR50LPL145 | JR5-145 | PL25*1035.4 | 1 | 232.92 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1209 | Roof | 2046JR50LPL147 | JR5-147 | PL25*1035.4 | 1 | 232.92 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1210 | Roof | 2046JR50LPL183 | JR5-183 | PL25*1419.4 | 1 | 271.99 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1211 | Roof | 2046JR50LPL185 | JR5-185 | PL25*1419.4 | 1 | 271.99 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1212 | Roof | 2046JR50LPL232 | JR5-232 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1213 | Roof | 2046JR50LPL233 | JR5-233 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1214 | Roof | 2046JR50LPL234 | JR5-234 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1215 | Roof | 2046JR50LPL235 | JR5-235 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1216 | Roof | 2046JR50LPL236 | JR5-236 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1217 | Roof | 2046JR50LPL237 | JR5-237 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1218 | Roof | 2046JR50LPL238 | JR5-238 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1219 | Roof | 2046JR50LPL239 | JR5-239 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1220 | Roof | 2046JR50LPL240 | JR5-240 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1221 | Roof | 2046JR50LPL241 | JR5-241 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1222 | Roof | 2046JR50LPL242 | JR5-242 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1223 | Roof | 2046JR50LPL243 | JR5-243 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1224 | Roof | 2046JR50LPL244 | JR5-244 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1225 | Roof | 2046JR50LPL245 | JR5-245 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1226 | Roof | 2046JR50LPL246 | JR5-246 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1227 | Roof | 2046JR50LPL247 | JR5-247 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1228 | Roof | 2046JR50LPL248 | JR5-248 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1229 | Roof | 2046JR50LPL249 | JR5-249 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1230 | Roof | 2046JR50LPL250 | JR5-250 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1231 | Roof | 2046JR50LPL251 | JR5-251 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1232 | Roof | 2046JR50LPL252 | JR5-252 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1233 | Roof | 2046JR50LPL253 | JR5-253 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1234 | Roof | 2046JR50LPL254 | JR5-254 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1235 | Roof | 2046JR50LPL255 | JR5-255 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1236 | Roof | 2046JR50LPL256 | JR5-256 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1237 | Roof | 2046JR50LPL257 | JR5-257 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1238 | Roof | 2046JR50LPL258 | JR5-258 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1239 | Roof | 2046JR50LPL259 | JR5-259 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1240 | Roof | 2046JR50LPL260 | JR5-260 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1241 | Roof | 2046JR50LPL261 | JR5-261 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1242 | Roof | 2046JR50LPL262 | JR5-262 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1243 | Roof | 2046JR50LPL263 | JR5-263 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1244 | Roof | 2046JR50LPL266 | JR5-266 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1245 | Roof | 2046JR50LPL267 | JR5-267 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1246 | Roof | 2046JR50LPL268 | JR5-268 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1247 | Roof | 2046JR50LPL269 | JR5-269 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1248 | Roof | 2046JR50LPL270 | JR5-270 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1249 | Roof | 2046JR50LPL271 | JR5-271 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1250 | Roof | 2046JR50LPL272 | JR5-272 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1251 | Roof | 2046JR50LPL273 | JR5-273 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1252 | Roof | 2046JR50LPL274 | JR5-274 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1253 | Roof | 2046JR50LPL275 | JR5-275 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1254 | Roof | 2046JR50LPL276 | JR5-276 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1255 | Roof | 2046JR50LPL277 | JR5-277 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1256 | Roof | 2046JR50LPL278 | JR5-278 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1257 | Roof | 2046JR50LPL279 | JR5-279 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1258 | Roof | 2046JR50LPL280 | JR5-280 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1259 | Roof | 2046JR50LPL281 | JR5-281 | PL10*200 | 1 | 5.21 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 28/05/2015 | 95 |
| 1260 | Roof | 2046JR50LPL282 | JR5-282 | PL25*972.2 | 1 | 218.55 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 04/06/2015 | 101 |
| 1261 | Roof | 2046JR50LPR212 | JR5-212 | HEB320 | 1 | 1011.05 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 05/06/2015 | 102 |
| 1262 | Roof | 2046JR50LPR213 | JR5-213 | HEB320 | 1 | 1011.05 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 05/06/2015 | 102 |
| 1263 | Roof | 2046JR50LPR214 | JR5-214 | HEB320 | 1 | 1011.05 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 05/06/2015 | 102 |
| 1264 | Roof | 2046JR50LPR215 | JR5-215 | HEB320 | 1 | 1011.05 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 05/06/2015 | 102 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1265 | Roof | 2046JR50V53 | JR5-53 | PL60*981.8 | 1 | 630.52 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 108 |
| 1266 | Roof | 2046JR50V140 | JR5-140 | PL25*972.2 | 1 | 274.23 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 108 |
| 1267 | Roof | 2046JR50V146 | JR5-146 | PL25*1085.4 | 1 | 275.42 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 10/07/2015 | 131 |
| 1268 | Roof | 2046JR50V184 | JR5-184 | PL25*1469.4 | 1 | 314.50 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 105 |
| 1269 | Roof | 2046JR50V283 | JR5-283 | PL25*972.2 | 1 | 273.25 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 108 |
| 1270 | Roof | 2046JR50V284 | JR5-284 | PL25*1085.4 | 1 | 275.42 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 108 |
| 1271 | Roof | 2046JR50V285 | JR5-285 | PL25*1469.4 | 1 | 314.50 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 06/05/2015 | 12/06/2015 | 105 |
| 1272 | Roof | 2046HR51BR139 | HR5-139 | CHS193.7*6.3 | 1 | 353.59 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 13/07/2015 | 132 |
| 1273 | Roof | 2046HR51BR140 | HR5-140 | CHS193.7*6.3 | 1 | 257.60 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 16/07/2015 | 134 |
| 1274 | Roof | 2046HR51BR141 | HR5-141 | CHS193.7*6.3 | 1 | 353.59 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 13/07/2015 | 132 |
| 1275 | Roof | 2046HR51BR142 | HR5-142 | CHS193.7*6.3 | 1 | 257.60 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 16/07/2015 | 134 |
| 1276 | Roof | 2046HR51LPL123 | HR5-123 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1277 | Roof | 2046HR51LPL124 | HR5-124 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1278 | Roof | 2046HR51LPL125 | HR5-125 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1279 | Roof | 2046HR51LPL126 | HR5-126 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1280 | Roof | 2046HR51LPL127 | HR5-127 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1281 | Roof | 2046HR51LPL128 | HR5-128 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1282 | Roof | 2046HR51LPL129 | HR5-129 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1283 | Roof | 2046HR51LPL130 | HR5-130 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1284 | Roof | 2046HR51LPL131 | HR5-131 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1285 | Roof | 2046HR51LPL132 | HR5-132 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1286 | Roof | 2046HR51LPL133 | HR5-133 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1287 | Roof | 2046HR51LPL134 | HR5-134 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1288 | Roof | 2046HR51LPL135 | HR5-135 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1289 | Roof | 2046HR51LPL136 | HR5-136 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1290 | Roof | 2046HR51LPL137 | HR5-137 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1291 | Roof | 2046HR51LPL138 | HR5-138 | PL10*220 | 1 | 5.35 | H | 5 | 13.2-13.3 | Without Intumescent | Portugal | 07/05/2015 | 28/05/2015 | 95 |
| 1292 | Roof | 2046JR50B41 | JR5-41 | SHS300*10 | 1 | 913.74 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 22/07/2015 | 138 |
| 1293 | Roof | 2046JR50B42 | JR5-42 | SHS300*10 | 1 | 951.88 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 13/07/2015 | 132 |
| 1294 | Roof | 2046JR50B43 | JR5-43 | SHS300*10 | 1 | 1199.20 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 22/07/2015 | 138 |
| 1295 | Roof | 2046JR50B44 | JR5-44 | SHS300*10 | 1 | 951.88 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 17/07/2015 | 135 |
| 1296 | Roof | 2046JR50B45 | JR5-45 | SHS300*10 | 1 | 1199.20 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 17/07/2015 | 135 |
| 1297 | Roof | 2046JR50B46 | JR5-46 | SHS300*10 | 1 | 1241.72 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1298 | Roof | 2046JR50B47 | JR5-47 | SHS300*10 | 1 | 1241.72 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 13/07/2015 | 132 |
| 1299 | Roof | 2046JR50B203 | JR5-203 | HEA300 | 1 | 726.77 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 20/07/2015 | 137 |
| 1300 | Roof | 2046JR50B205 | JR5-205 | HEA300 | 1 | 784.06 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 20/07/2015 | 137 |
| 1301 | Roof | 2046JR50B216 | JR5-216 | HEB320 | 1 | 1286.15 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 22/07/2015 | 138 |
| 1302 | Roof | 2046JR50B217 | JR5-217 | HEB320 | 1 | 1286.15 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 17/07/2015 | 135 |
| 1303 | Roof | 2046JR50B218 | JR5-218 | HEB320 | 1 | 1762.91 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 17/07/2015 | 135 |
| 1304 | Roof | 2046JR50B221 | JR5-221 | HEB320 | 1 | 1762.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 28/07/2015 | 140 |
| 1305 | Roof | 2046JR50B222 | JR5-222 | HEB320 | 1 | 1813.83 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 17/07/2015 | 136 |
| 1306 | Roof | 2046JR50B223 | JR5-223 | HEB320 | 1 | 1813.83 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 28/07/2015 | 140 |
| 1307 | Roof | 2046JR50LPL1 | JR5-1 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1308 | Roof | 2046JR50LPL2 | JR5-2 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1309 | Roof | 2046JR50LPL3 | JR5-3 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1310 | Roof | 2046JR50LPL4 | JR5-4 | PL15*290 | 1 | 29.03 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1311 | Roof | 2046JR50LPL11 | JR5-11 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1312 | Roof | 2046JR50LPL12 | JR5-12 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1313 | Roof | 2046JR50LPL13 | JR5-13 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1314 | Roof | 2046JR50LPL14 | JR5-14 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1315 | Roof | 2046JR50LPL15 | JR5-15 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1316 | Roof | 2046JR50LPL16 | JR5-16 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1317 | Roof | 2046JR50LPL17 | JR5-17 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1318 | Roof | 2046JR50LPL18 | JR5-18 | PL15*100 | 1 | 10.01 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1319 | Roof | 2046JR50LPL31 | JR5-31 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1320 | Roof | 2046JR50LPL32 | JR5-32 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1321 | Roof | 2046JR50LPL33 | JR5-33 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1322 | Roof | 2046JR50LPL34 | JR5-34 | PL10*190 | 1 | 7.76 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1323 | Roof | 2046JR50LPL125 | JR5-125 | PL35*300 | 1 | 124.16 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1324 | Roof | 2046JR50LPL126 | JR5-126 | PL35*300 | 1 | 124.16 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1325 | Roof | 2046JR50LPL127 | JR5-127 | PL35*300 | 1 | 122.81 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1326 | Roof | 2046JR50LPL128 | JR5-128 | PL35*300 | 1 | 122.81 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1327 | Roof | 2046JR50LPL129 | JR5-129 | PL35*300 | 1 | 122.81 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1328 | Roof | 2046JR50LPL130 | JR5-130 | PL35*300 | 1 | 122.81 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1329 | Roof | 2046JR50LPL131 | JR5-131 | PL35*300 | 1 | 124.16 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1330 | Roof | 2046JR50LPL132 | JR5-132 | PL35*300 | 1 | 124.16 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 24/06/2015 | 117 |
| 1331 | Roof | 2046JR50LPL224 | JR5-224 | PL10*200 | 1 | 7.70 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1332 | Roof | 2046JR50LPL225 | JR5-225 | PL10*200 | 1 | 7.70 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1333 | Roof | 2046JR50LPL226 | JR5-226 | PL10*200 | 1 | 7.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1334 | Roof | 2046JR50LPL227 | JR5-227 | PL10*200 | 1 | 7.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1335 | Roof | 2046JR50LPL228 | JR5-228 | PL10*200 | 1 | 7.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1336 | Roof | 2046JR50LPL229 | JR5-229 | PL10*200 | 1 | 7.69 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1337 | Roof | 2046JR50LPL230 | JR5-230 | PL10*200 | 1 | 7.70 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1338 | Roof | 2046JR50LPL231 | JR5-231 | PL10*200 | 1 | 7.70 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 01/08/2015 | 166 |
| 1339 | Roof | 2046IR50B16 | IR5-16 | HEB320 | 1 | 1798.75 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 30/06/2015 | 124 |
| 1340 | Roof | 2046IR50B19 | IR5-19 | HEB320 | 1 | 1798.75 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 30/06/2015 | 124 |
| 1341 | Roof | 2046IR50LPL76 | IR5-76 | PL35*300 | 1 | 124.16 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 30/06/2015 | 124 |
| 1342 | Roof | 2046IR50LPL77 | IR5-77 | PL35*300 | 1 | 124.16 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 30/06/2015 | 124 |
| 1343 | Roof | 2046IR50LPL79 | IR5-79 | PL35*300 | 1 | 124.16 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 30/06/2015 | 124 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1344 | Roof | 2046IR50LPL80 | IR5-80 | PL35*300 | 1 | 124.16 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 30/06/2015 | 124 |
| 1345 | Roof | 2046IR50LPL115 | IR5-115 | PL10*200 | 1 | 7.70 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 18/06/2015 | 111 |
| 1346 | Roof | 2046IR50LPL116 | IR5-116 | PL10*200 | 1 | 7.70 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 18/06/2015 | 111 |
| 1347 | Roof | 2046IR50LPL117 | IR5-117 | PL10*200 | 1 | 7.70 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1348 | Roof | 2046IR50LPL118 | IR5-118 | PL10*200 | 1 | 7.70 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 25/05/2015 | 19/06/2015 | 112 |
| 1349 | Roof | 2046AR50B230 | AR5-230 | HEB320 | 1 | 994.06 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 22/07/2015 | 138 |
| 1350 | Roof | 2046AR50B290 | AR5-290 | HEB320 | 1 | 1290.61 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 17/07/2015 | 135 |
| 1351 | Roof | 2046AR50B291 | AR5-291 | HEB320 | 1 | 1715.58 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 17/07/2015 | 136 |
| 1352 | Roof | 2046AR50B294 | AR5-294 | HEB320 | 1 | 1715.58 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 17/07/2015 | 136 |
| 1353 | Roof | 2046AR50B295 | AR5-295 | HEB320 | 1 | 1290.61 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 17/07/2015 | 135 |
| 1354 | Roof | 2046AR50B297 | AR5-297 | HEB320 | 1 | 1665.34 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 17/07/2015 | 136 |
| 1355 | Roof | 2046AR50B298 | AR5-298 | HEB320 | 1 | 1549.06 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 16/07/2015 | 134 |
| 1356 | Roof | 2046AR50B299 | AR5-299 | HEB320 | 1 | 1665.34 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 16/07/2015 | 134 |
| 1357 | Roof | 2046AR50LPL6 | AR5-6 | PL30*972.2 | 1 | 262.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 30/06/2015 | 124 |
| 1358 | Roof | 2046AR50LPL20 | AR5-20 | PL30*972.2 | 1 | 262.26 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 30/06/2015 | 124 |
| 1359 | Roof | 2046AR50LPL21 | AR5-21 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1360 | Roof | 2046AR50LPL22 | AR5-22 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1361 | Roof | 2046AR50LPL29 | AR5-29 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1362 | Roof | 2046AR50LPL30 | AR5-30 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1363 | Roof | 2046AR50LPL37 | AR5-37 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1364 | Roof | 2046AR50LPL38 | AR5-38 | PL25*1035.4 | 1 | 232.92 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1365 | Roof | 2046AR50LPL39 | AR5-39 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1366 | Roof | 2046AR50LPL40 | AR5-40 | PL25*1419.4 | 1 | 271.99 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1367 | Roof | 2046AR50LPL49 | AR5-49 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1368 | Roof | 2046AR50LPL50 | AR5-50 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1369 | Roof | 2046AR50LPL51 | AR5-51 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1370 | Roof | 2046AR50LPL52 | AR5-52 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1371 | Roof | 2046AR50LPL53 | AR5-53 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1372 | Roof | 2046AR50LPL54 | AR5-54 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1373 | Roof | 2046AR50LPL55 | AR5-55 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1374 | Roof | 2046AR50LPL56 | AR5-56 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1375 | Roof | 2046AR50LPL57 | AR5-57 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1376 | Roof | 2046AR50LPL58 | AR5-58 | PL10*200 | 1 | 7.70 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1377 | Roof | 2046AR50LPL59 | AR5-59 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1378 | Roof | 2046AR50LPL60 | AR5-60 | PL35*300 | 1 | 124.16 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1379 | Roof | 2046AR50LPL61 | AR5-61 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1380 | Roof | 2046AR50LPL62 | AR5-62 | PL10*200 | 1 | 7.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1381 | Roof | 2046AR50LPL63 | AR5-63 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1382 | Roof | 2046AR50LPL64 | AR5-64 | PL35*300 | 1 | 122.81 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 01/08/2015 | 166 |
| 1383 | Roof | 2046AR50LPL115 | AR5-115 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1384 | Roof | 2046AR50LPL116 | AR5-116 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1385 | Roof | 2046AR50LPL117 | AR5-117 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1386 | Roof | 2046AR50LPL118 | AR5-118 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1387 | Roof | 2046AR50LPL119 | AR5-119 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1388 | Roof | 2046AR50LPL120 | AR5-120 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1389 | Roof | 2046AR50LPL121 | AR5-121 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1390 | Roof | 2046AR50LPL122 | AR5-122 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1391 | Roof | 2046AR50LPL123 | AR5-123 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1392 | Roof | 2046AR50LPL124 | AR5-124 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1393 | Roof | 2046AR50LPL125 | AR5-125 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1394 | Roof | 2046AR50LPL126 | AR5-126 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1395 | Roof | 2046AR50LPL127 | AR5-127 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1396 | Roof | 2046AR50LPL128 | AR5-128 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1397 | Roof | 2046AR50LPL129 | AR5-129 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1398 | Roof | 2046AR50LPL130 | AR5-130 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1399 | Roof | 2046AR50LPL131 | AR5-131 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1400 | Roof | 2046AR50LPL132 | AR5-132 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1401 | Roof | 2046AR50LPL133 | AR5-133 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1402 | Roof | 2046AR50LPL134 | AR5-134 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1403 | Roof | 2046AR50LPL135 | AR5-135 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1404 | Roof | 2046AR50LPL136 | AR5-136 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1405 | Roof | 2046AR50LPL137 | AR5-137 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1406 | Roof | 2046AR50LPL138 | AR5-138 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1407 | Roof | 2046AR50LPL139 | AR5-139 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1408 | Roof | 2046AR50LPL140 | AR5-140 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1409 | Roof | 2046AR50LPL141 | AR5-141 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1410 | Roof | 2046AR50LPL142 | AR5-142 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1411 | Roof | 2046AR50LPL143 | AR5-143 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1412 | Roof | 2046AR50LPL144 | AR5-144 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1413 | Roof | 2046AR50LPL145 | AR5-145 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1414 | Roof | 2046AR50LPL146 | AR5-146 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1415 | Roof | 2046AR50LPL147 | AR5-147 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1416 | Roof | 2046AR50LPL148 | AR5-148 | PL10*190 | 1 | 7.76 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 18/06/2015 | 111 |
| 1417 | Roof | 2046AR50LPL149 | AR5-149 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1418 | Roof | 2046AR50LPL150 | AR5-150 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1419 | Roof | 2046AR50LPL151 | AR5-151 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1420 | Roof | 2046AR50LPL152 | AR5-152 | PL15*100 | 1 | 10.01 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1421 | Roof | 2046AR50LPL153 | AR5-153 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |
| 1422 | Roof | 2046AR50LPL154 | AR5-154 | PL15*290 | 1 | 29.03 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 19/06/2015 | 112 |

## Table A3-04: Schedule of Roof Steelwork Components

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1423 | Roof | 2046AR50LPL173 | AR5-173 | PL60*981.8 | 1 | 552.65 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 30/06/2015 | 124 |
| 1424 | Roof | 2046AR50LPL179 | AR5-179 | FPL20*170 | 1 | 12.69 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 03/07/2015 | 127 |
| 1425 | Roof | 2046AR50V5 | AR5-5 | PL30*972.2 | 1 | 316.96 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 10/07/2015 | 131 |
| 1426 | Roof | 2046AR50V19 | AR5-19 | PL30*972.2 | 1 | 316.96 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 10/07/2015 | 131 |
| 1427 | Roof | 2046AR50V174 | AR5-174 | PL60*981.8 | 1 | 630.52 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 22/05/2015 | 10/07/2015 | 131 |
| 1428 | Roof | 2046IR51BR139 | IR5-139 | CHS193.7*6.3 | 1 | 273.42 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1429 | Roof | 2046IR51BR140 | IR5-140 | CHS193.7*6.3 | 1 | 257.28 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1430 | Roof | 2046IR51BR141 | IR5-141 | CHS193.7*6.3 | 1 | 273.42 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1431 | Roof | 2046IR51BR142 | IR5-142 | CHS193.7*6.3 | 1 | 257.28 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1432 | Roof | 2046IR51LPL123 | IR5-123 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1433 | Roof | 2046IR51LPL124 | IR5-124 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1434 | Roof | 2046IR51LPL125 | IR5-125 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1435 | Roof | 2046IR51LPL126 | IR5-126 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1436 | Roof | 2046IR51LPL127 | IR5-127 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1437 | Roof | 2046IR51LPL128 | IR5-128 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1438 | Roof | 2046IR51LPL129 | IR5-129 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1439 | Roof | 2046IR51LPL130 | IR5-130 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1440 | Roof | 2046IR51LPL131 | IR5-131 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1441 | Roof | 2046IR51LPL132 | IR5-132 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1442 | Roof | 2046IR51LPL133 | IR5-133 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1443 | Roof | 2046IR51LPL134 | IR5-134 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1444 | Roof | 2046IR51LPL135 | IR5-135 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1445 | Roof | 2046IR51LPL136 | IR5-136 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1446 | Roof | 2046IR51LPL137 | IR5-137 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1447 | Roof | 2046IR51LPL138 | IR5-138 | PL10*220 | 1 | 5.35 | I | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1448 | Roof | 2046GR51BR139 | GR5-139 | CHS193.7*6.3 | 1 | 353.59 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1449 | Roof | 2046GR51BR140 | GR5-140 | CHS193.7*6.3 | 1 | 257.60 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1450 | Roof | 2046GR51BR141 | GR5-141 | CHS193.7*6.3 | 1 | 353.59 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1451 | Roof | 2046GR51BR142 | GR5-142 | CHS193.7*6.3 | 1 | 257.60 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1452 | Roof | 2046GR51LPL123 | GR5-123 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1453 | Roof | 2046GR51LPL124 | GR5-124 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1454 | Roof | 2046GR51LPL125 | GR5-125 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1455 | Roof | 2046GR51LPL126 | GR5-126 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1456 | Roof | 2046GR51LPL127 | GR5-127 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1457 | Roof | 2046GR51LPL128 | GR5-128 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1458 | Roof | 2046GR51LPL129 | GR5-129 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1459 | Roof | 2046GR51LPL130 | GR5-130 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1460 | Roof | 2046GR51LPL131 | GR5-131 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1461 | Roof | 2046GR51LPL132 | GR5-132 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1462 | Roof | 2046GR51LPL133 | GR5-133 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1463 | Roof | 2046GR51LPL134 | GR5-134 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1464 | Roof | 2046GR51LPL135 | GR5-135 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1465 | Roof | 2046GR51LPL136 | GR5-136 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1466 | Roof | 2046GR51LPL137 | GR5-137 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1467 | Roof | 2046GR51LPL138 | GR5-138 | PL10*220 | 1 | 5.35 | G | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1468 | Roof | 2046FR51BR139 | FR5-139 | CHS193.7*6.3 | 1 | 353.59 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1469 | Roof | 2046FR51BR140 | FR5-140 | CHS193.7*6.3 | 1 | 257.60 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1470 | Roof | 2046FR51BR141 | FR5-141 | CHS193.7*6.3 | 1 | 353.59 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1471 | Roof | 2046FR51BR142 | FR5-142 | CHS193.7*6.3 | 1 | 257.60 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1472 | Roof | 2046FR51LPL123 | FR5-123 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1473 | Roof | 2046FR51LPL124 | FR5-124 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1474 | Roof | 2046FR51LPL125 | FR5-125 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1475 | Roof | 2046FR51LPL126 | FR5-126 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1476 | Roof | 2046FR51LPL127 | FR5-127 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1477 | Roof | 2046FR51LPL128 | FR5-128 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1478 | Roof | 2046FR51LPL129 | FR5-129 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1479 | Roof | 2046FR51LPL130 | FR5-130 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1480 | Roof | 2046FR51LPL131 | FR5-131 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1481 | Roof | 2046FR51LPL132 | FR5-132 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1482 | Roof | 2046FR51LPL133 | FR5-133 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1483 | Roof | 2046FR51LPL134 | FR5-134 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1484 | Roof | 2046FR51LPL135 | FR5-135 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1485 | Roof | 2046FR51LPL136 | FR5-136 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1486 | Roof | 2046FR51LPL137 | FR5-137 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1487 | Roof | 2046FR51LPL138 | FR5-138 | PL10*220 | 1 | 5.35 | F | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1488 | Roof | 2046ER51BR139 | ER5-139 | CHS193.7*6.3 | 1 | 353.59 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1489 | Roof | 2046ER51BR140 | ER5-140 | CHS193.7*6.3 | 1 | 257.60 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1490 | Roof | 2046ER51BR141 | ER5-141 | CHS193.7*6.3 | 1 | 353.59 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1491 | Roof | 2046ER51BR142 | ER5-142 | CHS193.7*6.3 | 1 | 257.60 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1492 | Roof | 2046ER51LPL123 | ER5-123 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1493 | Roof | 2046ER51LPL124 | ER5-124 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1494 | Roof | 2046ER51LPL125 | ER5-125 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1495 | Roof | 2046ER51LPL126 | ER5-126 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1496 | Roof | 2046ER51LPL127 | ER5-127 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1497 | Roof | 2046ER51LPL128 | ER5-128 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1498 | Roof | 2046ER51LPL129 | ER5-129 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1499 | Roof | 2046ER51LPL130 | ER5-130 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1500 | Roof | 2046ER51LPL131 | ER5-131 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1501 | Roof | 2046ER51LPL132 | ER5-132 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1502 | Roof | 2046ER51LPL133 | ER5-133 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1503 | Roof | 2046ER51LPL134 | ER5-134 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1504 | Roof | 2046ER51LPL135 | ER5-135 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1505 | Roof | 2046ER51LPL136 | ER5-136 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1506 | Roof | 2046ER51LPL137 | ER5-137 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1507 | Roof | 2046ER51LPL138 | ER5-138 | PL10*220 | 1 | 5.35 | E | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1508 | Roof | 2046DR51BR142 | DR5-142 | CHS193.7*6.3 | 1 | 353.59 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1509 | Roof | 2046DR51BR143 | DR5-143 | CHS193.7*6.3 | 1 | 257.60 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1510 | Roof | 2046DR51BR144 | DR5-144 | CHS193.7*6.3 | 1 | 353.59 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1511 | Roof | 2046DR51BR145 | DR5-145 | CHS193.7*6.3 | 1 | 257.60 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1512 | Roof | 2046DR51LPL126 | DR5-126 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1513 | Roof | 2046DR51LPL127 | DR5-127 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1514 | Roof | 2046DR51LPL128 | DR5-128 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1515 | Roof | 2046DR51LPL129 | DR5-129 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1516 | Roof | 2046DR51LPL130 | DR5-130 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1517 | Roof | 2046DR51LPL131 | DR5-131 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1518 | Roof | 2046DR51LPL132 | DR5-132 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1519 | Roof | 2046DR51LPL133 | DR5-133 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1520 | Roof | 2046DR51LPL134 | DR5-134 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1521 | Roof | 2046DR51LPL135 | DR5-135 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1522 | Roof | 2046DR51LPL136 | DR5-136 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1523 | Roof | 2046DR51LPL137 | DR5-137 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1524 | Roof | 2046DR51LPL138 | DR5-138 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1525 | Roof | 2046DR51LPL139 | DR5-139 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1526 | Roof | 2046DR51LPL140 | DR5-140 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1527 | Roof | 2046DR51LPL141 | DR5-141 | PL10*220 | 1 | 5.35 | D | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1528 | Roof | 2046CR51BR139 | CR5-139 | CHS193.7*6.3 | 1 | 353.59 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1529 | Roof | 2046CR51BR140 | CR5-140 | CHS193.7*6.3 | 1 | 257.60 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 22/07/2015 | 138 |
| 1530 | Roof | 2046CR51BR141 | CR5-141 | CHS193.7*6.3 | 1 | 353.59 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1531 | Roof | 2046CR51BR142 | CR5-142 | CHS193.7*6.3 | 1 | 257.60 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1532 | Roof | 2046CR51LPL123 | CR5-123 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1533 | Roof | 2046CR51LPL124 | CR5-124 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1534 | Roof | 2046CR51LPL125 | CR5-125 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1535 | Roof | 2046CR51LPL126 | CR5-126 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1536 | Roof | 2046CR51LPL127 | CR5-127 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1537 | Roof | 2046CR51LPL128 | CR5-128 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1538 | Roof | 2046CR51LPL129 | CR5-129 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1539 | Roof | 2046CR51LPL130 | CR5-130 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1540 | Roof | 2046CR51LPL131 | CR5-131 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1541 | Roof | 2046CR51LPL132 | CR5-132 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1542 | Roof | 2046CR51LPL133 | CR5-133 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1543 | Roof | 2046CR51LPL134 | CR5-134 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1544 | Roof | 2046CR51LPL135 | CR5-135 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1545 | Roof | 2046CR51LPL136 | CR5-136 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1546 | Roof | 2046CR51LPL137 | CR5-137 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1547 | Roof | 2046CR51LPL138 | CR5-138 | PL10*220 | 1 | 5.35 | C | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1548 | Roof | 2046BR51BR140 | BR5-140 | CHS193.7*6.3 | 1 | 273.42 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 15/07/2015 | 134 |
| 1549 | Roof | 2046BR51BR141 | BR5-141 | CHS193.7*6.3 | 1 | 257.28 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1550 | Roof | 2046BR51BR142 | BR5-142 | CHS193.7*6.3 | 1 | 273.42 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1551 | Roof | 2046BR51BR143 | BR5-143 | CHS193.7*6.3 | 1 | 257.28 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1552 | Roof | 2046BR51LPL124 | BR5-124 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1553 | Roof | 2046BR51LPL125 | BR5-125 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1554 | Roof | 2046BR51LPL126 | BR5-126 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1555 | Roof | 2046BR51LPL127 | BR5-127 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1556 | Roof | 2046BR51LPL128 | BR5-128 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1557 | Roof | 2046BR51LPL129 | BR5-129 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1558 | Roof | 2046BR51LPL130 | BR5-130 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1559 | Roof | 2046BR51LPL131 | BR5-131 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1560 | Roof | 2046BR51LPL132 | BR5-132 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1561 | Roof | 2046BR51LPL133 | BR5-133 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1562 | Roof | 2046BR51LPL134 | BR5-134 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1563 | Roof | 2046BR51LPL135 | BR5-135 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1564 | Roof | 2046BR51LPL136 | BR5-136 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1565 | Roof | 2046BR51LPL137 | BR5-137 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1566 | Roof | 2046BR51LPL138 | BR5-138 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1567 | Roof | 2046BR51LPL139 | BR5-139 | PL10*220 | 1 | 5.35 | B | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1568 | Roof | 2046AR51BR379 | AR5-379 | CHS193.7*6.3 | 1 | 269.96 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1569 | Roof | 2046AR51BR380 | AR5-380 | CHS193.7*6.3 | 1 | 269.96 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1570 | Roof | 2046AR51BR381 | AR5-381 | CHS193.7*6.3 | 1 | 257.28 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1571 | Roof | 2046AR51BR382 | AR5-382 | CHS193.7*6.3 | 1 | 257.28 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1572 | Roof | 2046AR51LPL363 | AR5-363 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1573 | Roof | 2046AR51LPL364 | AR5-364 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1574 | Roof | 2046AR51LPL365 | AR5-365 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1575 | Roof | 2046AR51LPL366 | AR5-366 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1576 | Roof | 2046AR51LPL367 | AR5-367 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1577 | Roof | 2046AR51LPL368 | AR5-368 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1578 | Roof | 2046AR51LPL369 | AR5-369 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1579 | Roof | 2046AR51LPL370 | AR5-370 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1580 | Roof | 2046AR51LPL371 | AR5-371 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |

**Table A3-04: Schedule of Roof Steelwork Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1581 | Roof | 2046AR51LPL372 | AR5-372 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1582 | Roof | 2046AR51LPL373 | AR5-373 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1583 | Roof | 2046AR51LPL374 | AR5-374 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1584 | Roof | 2046AR51LPL375 | AR5-375 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1585 | Roof | 2046AR51LPL376 | AR5-376 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1586 | Roof | 2046AR51LPL377 | AR5-377 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1587 | Roof | 2046AR51LPL378 | AR5-378 | PL10*220 | 1 | 5.35 | A | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1588 | Roof | 2046JR51BR302 | JR5-302 | CHS193.7*6.3 | 1 | 269.96 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1589 | Roof | 2046JR51BR303 | JR5-303 | CHS193.7*6.3 | 1 | 257.28 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 07/08/2015 | 147 |
| 1590 | Roof | 2046JR51BR304 | JR5-304 | CHS193.7*6.3 | 1 | 269.96 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 16/07/2015 | 134 |
| 1591 | Roof | 2046JR51BR305 | JR5-305 | CHS193.7*6.3 | 1 | 257.28 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 13/07/2015 | 132 |
| 1592 | Roof | 2046JR51LPL286 | JR5-286 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1593 | Roof | 2046JR51LPL287 | JR5-287 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1594 | Roof | 2046JR51LPL288 | JR5-288 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1595 | Roof | 2046JR51LPL289 | JR5-289 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1596 | Roof | 2046JR51LPL290 | JR5-290 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1597 | Roof | 2046JR51LPL291 | JR5-291 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1598 | Roof | 2046JR51LPL292 | JR5-292 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1599 | Roof | 2046JR51LPL293 | JR5-293 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1600 | Roof | 2046JR51LPL294 | JR5-294 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1601 | Roof | 2046JR51LPL295 | JR5-295 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1602 | Roof | 2046JR51LPL296 | JR5-296 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1603 | Roof | 2046JR51LPL297 | JR5-297 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1604 | Roof | 2046JR51LPL298 | JR5-298 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1605 | Roof | 2046JR51LPL299 | JR5-299 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1606 | Roof | 2046JR51LPL300 | JR5-300 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1607 | Roof | 2046JR51LPL301 | JR5-301 | PL10*220 | 1 | 5.35 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 01/06/2015 | 01/08/2015 | 166 |
| 1673 | Roof | 2046JR50FP176 | JR5-176 | HEA240 | 1 | 1140.05 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 01/09/2015 | 157 |
| 1674 | Roof | 2046JR50FP177 | JR5-177 | HEA240 | 1 | 570.36 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 04/09/2015 | 158 |
| 1675 | Roof | 2046JR50FP178 | JR5-178 | HEA240 | 1 | 527.17 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 04/09/2015 | 158 |
| 1676 | Roof | 2046JR50FP179 | JR5-179 | HEA240 | 1 | 511.52 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 04/09/2015 | 158 |
| 1677 | Roof | 2046JR50FP180 | JR5-180 | HEA240 | 1 | 570.36 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 04/09/2015 | 158 |
| 1678 | Roof | 2046JR50FP181 | JR5-181 | HEA240 | 1 | 527.17 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 04/09/2015 | 158 |
| 1679 | Roof | 2046JR50FP182 | JR5-182 | HEA240 | 1 | 511.52 | J | 5 | 13.2-13.3 | Without Intumescent | Portugal | 21/07/2015 | 04/09/2015 | 158 |

**Table A3-05: Schedule of Roof Purlin Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Purlin | 2046ZZ53LRP604 | ZZ5-604 | HEB240 | 1 | 748.06 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 2 | Purlin | 2046ZZ53LRP605 | ZZ5-605 | HEB240 | 1 | 748.06 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 3 | Purlin | 2046ZZ53RP606 | ZZ5-606 | HEB240 | 1 | 911.74 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 4 | Purlin | 2046ZZ53LRP607 | ZZ5-607 | HEB240 | 1 | 748.06 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 5 | Purlin | 2046ZZ53RP608 | ZZ5-608 | HEB240 | 1 | 911.74 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 6 | Purlin | 2046ZZ53LRP698 | ZZ5-698 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 7 | Purlin | 2046ZZ53LRP699 | ZZ5-699 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 8 | Purlin | 2046ZZ53LRP700 | ZZ5-700 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 9 | Purlin | 2046ZZ53LRP701 | ZZ5-701 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 10 | Purlin | 2046ZZ53LRP702 | ZZ5-702 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 11 | Purlin | 2046ZZ53LRP703 | ZZ5-703 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 12 | Purlin | 2046ZZ53LRP704 | ZZ5-704 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 13 | Purlin | 2046ZZ53LRP705 | ZZ5-705 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 14 | Purlin | 2046ZZ53LRP706 | ZZ5-706 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 15 | Purlin | 2046ZZ53LRP707 | ZZ5-707 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 16 | Purlin | 2046ZZ53LRP708 | ZZ5-708 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 17 | Purlin | 2046ZZ53LRP709 | ZZ5-709 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 18 | Purlin | 2046ZZ53LRP710 | ZZ5-710 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 19 | Purlin | 2046ZZ53LRP711 | ZZ5-711 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 20 | Purlin | 2046ZZ53LRP712 | ZZ5-712 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 21 | Purlin | 2046ZZ53LRP713 | ZZ5-713 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 22 | Purlin | 2046ZZ53LRP714 | ZZ5-714 | HEA200 | 1 | 94.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 23 | Purlin | 2046ZZ53LRP715 | ZZ5-715 | HEA200 | 1 | 94.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 24 | Purlin | 2046ZZ53LRP716 | ZZ5-716 | HEA200 | 1 | 94.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 25 | Purlin | 2046ZZ53LRP717 | ZZ5-717 | HEA200 | 1 | 94.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 26 | Purlin | 2046ZZ53LRP718 | ZZ5-718 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 27 | Purlin | 2046ZZ53LRP719 | ZZ5-719 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 28 | Purlin | 2046ZZ53LRP720 | ZZ5-720 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 29 | Purlin | 2046ZZ53LRP721 | ZZ5-721 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 30 | Purlin | 2046ZZ53LRP722 | ZZ5-722 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 31 | Purlin | 2046ZZ53RP609 | ZZ5-609 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 32 | Purlin | 2046ZZ53RP610 | ZZ5-610 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 33 | Purlin | 2046ZZ53RP611 | ZZ5-611 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 34 | Purlin | 2046ZZ53RP612 | ZZ5-612 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 35 | Purlin | 2046ZZ53RP613 | ZZ5-613 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 36 | Purlin | 2046ZZ53RP614 | ZZ5-614 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 37 | Purlin | 2046ZZ53RP615 | ZZ5-615 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 38 | Purlin | 2046ZZ53RP616 | ZZ5-616 | HEB240 | 1 | 786.34 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 39 | Purlin | 2046ZZ53RP617 | ZZ5-617 | HEB240 | 1 | 926.21 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 16/07/2015 | 134 |
| 40 | Purlin | 2046ZZ53RP618 | ZZ5-618 | HEB240 | 1 | 926.21 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 16/07/2015 | 134 |
| 41 | Purlin | 2046ZZ53RP620 | ZZ5-620 | HEB240 | 1 | 786.34 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 15/06/2015 | 109 |
| 42 | Purlin | 2046ZZ53RP622 | ZZ5-622 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 43 | Purlin | 2046ZZ53RP623 | ZZ5-623 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 44 | Purlin | 2046ZZ53RP624 | ZZ5-624 | HEB240 | 1 | 757.29 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 45 | Purlin | 2046ZZ53RP625 | ZZ5-625 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 46 | Purlin | 2046ZZ53RP626 | ZZ5-626 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 47 | Purlin | 2046ZZ53RP627 | ZZ5-627 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 48 | Purlin | 2046ZZ53RP628 | ZZ5-628 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 49 | Purlin | 2046ZZ53RP629 | ZZ5-629 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 50 | Purlin | 2046ZZ53RP630 | ZZ5-630 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 51 | Purlin | 2046ZZ53RP631 | ZZ5-631 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 52 | Purlin | 2046ZZ53RP632 | ZZ5-632 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 53 | Purlin | 2046ZZ53RP633 | ZZ5-633 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 54 | Purlin | 2046ZZ53RP634 | ZZ5-634 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 55 | Purlin | 2046ZZ53RP635 | ZZ5-635 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 56 | Purlin | 2046ZZ53RP636 | ZZ5-636 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 57 | Purlin | 2046ZZ53RP637 | ZZ5-637 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 58 | Purlin | 2046ZZ53RP638 | ZZ5-638 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 59 | Purlin | 2046ZZ53RP639 | ZZ5-639 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 60 | Purlin | 2046ZZ53RP640 | ZZ5-640 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 61 | Purlin | 2046ZZ53RP641 | ZZ5-641 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 62 | Purlin | 2046ZZ53RP642 | ZZ5-642 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 63 | Purlin | 2046ZZ53RP643 | ZZ5-643 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 15/06/2015 | 109 |
| 64 | Purlin | 2046ZZ53RP644 | ZZ5-644 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 65 | Purlin | 2046ZZ53RP645 | ZZ5-645 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 66 | Purlin | 2046ZZ53RP646 | ZZ5-646 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 67 | Purlin | 2046ZZ53RP647 | ZZ5-647 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 68 | Purlin | 2046ZZ53RP648 | ZZ5-648 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 69 | Purlin | 2046ZZ53RP649 | ZZ5-649 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 70 | Purlin | 2046ZZ53RP650 | ZZ5-650 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 71 | Purlin | 2046ZZ53RP653 | ZZ5-653 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 72 | Purlin | 2046ZZ53RP654 | ZZ5-654 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 73 | Purlin | 2046ZZ53RP655 | ZZ5-655 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 74 | Purlin | 2046ZZ53RP656 | ZZ5-656 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 75 | Purlin | 2046ZZ53RP657 | ZZ5-657 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |

**Table A3-05: Schedule of Roof Purlin Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 76 | Purlin | 2046ZZ53RP658 | ZZ5-658 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 77 | Purlin | 2046ZZ53RP659 | ZZ5-659 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 78 | Purlin | 2046ZZ53RP660 | ZZ5-660 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 79 | Purlin | 2046ZZ53RP661 | ZZ5-661 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 80 | Purlin | 2046ZZ53RP662 | ZZ5-662 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 81 | Purlin | 2046ZZ53RP663 | ZZ5-663 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 82 | Purlin | 2046ZZ53RP664 | ZZ5-664 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 83 | Purlin | 2046ZZ53RP665 | ZZ5-665 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 84 | Purlin | 2046ZZ53RP666 | ZZ5-666 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 85 | Purlin | 2046ZZ53RP667 | ZZ5-667 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 86 | Purlin | 2046ZZ53RP668 | ZZ5-668 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 87 | Purlin | 2046ZZ53RP669 | ZZ5-669 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 88 | Purlin | 2046ZZ53RP670 | ZZ5-670 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 89 | Purlin | 2046ZZ53RP671 | ZZ5-671 | HEB240 | 1 | 786.34 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 90 | Purlin | 2046ZZ53RP672 | ZZ5-672 | HEB240 | 1 | 786.34 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 91 | Purlin | 2046ZZ53RP673 | ZZ5-673 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 92 | Purlin | 2046ZZ53RP674 | ZZ5-674 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 93 | Purlin | 2046ZZ53RP675 | ZZ5-675 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 94 | Purlin | 2046ZZ53RP676 | ZZ5-676 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 95 | Purlin | 2046ZZ53RP677 | ZZ5-677 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 96 | Purlin | 2046ZZ53RP680 | ZZ5-680 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 05/06/2015 | 102 |
| 97 | Purlin | 2046ZZ53RP681 | ZZ5-681 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 98 | Purlin | 2046ZZ53RP682 | ZZ5-682 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 99 | Purlin | 2046ZZ53RP683 | ZZ5-683 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 100 | Purlin | 2046ZZ53RP684 | ZZ5-684 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 101 | Purlin | 2046ZZ53RP685 | ZZ5-685 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 102 | Purlin | 2046ZZ53RP686 | ZZ5-686 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 103 | Purlin | 2046ZZ53RP687 | ZZ5-687 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 104 | Purlin | 2046ZZ53RP688 | ZZ5-688 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 105 | Purlin | 2046ZZ53RP689 | ZZ5-689 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 106 | Purlin | 2046ZZ53RP690 | ZZ5-690 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/06/2015 | 99 |
| 107 | Purlin | 2046ZZ53RP691 | ZZ5-691 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 108 | Purlin | 2046ZZ53RP692 | ZZ5-692 | HEA200 | 1 | 403.17 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 109 | Purlin | 2046ZZ53RP693 | ZZ5-693 | HEA200 | 1 | 403.17 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 29/05/2015 | 97 |
| 110 | Purlin | 2046ZZ53RP696 | ZZ5-696 | HEA200 | 1 | 403.17 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 111 | Purlin | 2046ZZ53RP697 | ZZ5-697 | HEA200 | 1 | 403.17 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 01/06/2015 | 98 |
| 112 | Purlin | 2046ZZ52LRP473 | ZZ5-473 | HEB240 | 1 | 748.06 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 113 | Purlin | 2046ZZ52LRP474 | ZZ5-474 | HEB240 | 1 | 748.06 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 114 | Purlin | 2046ZZ52LRP475 | ZZ5-475 | HEB240 | 1 | 748.06 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 115 | Purlin | 2046ZZ52LRP551 | ZZ5-551 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 116 | Purlin | 2046ZZ52LRP552 | ZZ5-552 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 117 | Purlin | 2046ZZ52LRP579 | ZZ5-579 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 118 | Purlin | 2046ZZ52LRP580 | ZZ5-580 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 119 | Purlin | 2046ZZ52LRP581 | ZZ5-581 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 120 | Purlin | 2046ZZ52LRP582 | ZZ5-582 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 121 | Purlin | 2046ZZ52LRP583 | ZZ5-583 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 122 | Purlin | 2046ZZ52LRP584 | ZZ5-584 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 123 | Purlin | 2046ZZ52LRP585 | ZZ5-585 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 124 | Purlin | 2046ZZ52LRP586 | ZZ5-586 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 125 | Purlin | 2046ZZ52LRP587 | ZZ5-587 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 126 | Purlin | 2046ZZ52LRP588 | ZZ5-588 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 127 | Purlin | 2046ZZ52LRP589 | ZZ5-589 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 128 | Purlin | 2046ZZ52LRP590 | ZZ5-590 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 129 | Purlin | 2046ZZ52LRP591 | ZZ5-591 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 130 | Purlin | 2046ZZ52LRP592 | ZZ5-592 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 131 | Purlin | 2046ZZ52LRP593 | ZZ5-593 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 132 | Purlin | 2046ZZ52LRP594 | ZZ5-594 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 133 | Purlin | 2046ZZ52LRP595 | ZZ5-595 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 134 | Purlin | 2046ZZ52LRP596 | ZZ5-596 | HEA200 | 1 | 94.16 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 135 | Purlin | 2046ZZ52LRP599 | ZZ5-599 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 136 | Purlin | 2046ZZ52LRP600 | ZZ5-600 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 137 | Purlin | 2046ZZ52LRP601 | ZZ5-601 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 138 | Purlin | 2046ZZ52LRP602 | ZZ5-602 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 139 | Purlin | 2046ZZ52LRP603 | ZZ5-603 | IPE140 | 1 | 61.18 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 140 | Purlin | 2046ZZ52RP478 | ZZ5-478 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 141 | Purlin | 2046ZZ52RP479 | ZZ5-479 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 142 | Purlin | 2046ZZ52RP480 | ZZ5-480 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 143 | Purlin | 2046ZZ52RP481 | ZZ5-481 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 144 | Purlin | 2046ZZ52RP482 | ZZ5-482 | HEB240 | 1 | 750.89 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 145 | Purlin | 2046ZZ52RP483 | ZZ5-483 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 146 | Purlin | 2046ZZ52RP484 | ZZ5-484 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 147 | Purlin | 2046ZZ52RP485 | ZZ5-485 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 148 | Purlin | 2046ZZ52RP486 | ZZ5-486 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 149 | Purlin | 2046ZZ52RP487 | ZZ5-487 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 150 | Purlin | 2046ZZ52RP488 | ZZ5-488 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |

**Table A3-05: Schedule of Roof Purlin Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 151 | Purlin | 2046ZZ52RP489 | ZZ5-489 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 152 | Purlin | 2046ZZ52RP490 | ZZ5-490 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 153 | Purlin | 2046ZZ52RP491 | ZZ5-491 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 154 | Purlin | 2046ZZ52RP492 | ZZ5-492 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 155 | Purlin | 2046ZZ52RP493 | ZZ5-493 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 156 | Purlin | 2046ZZ52RP494 | ZZ5-494 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 157 | Purlin | 2046ZZ52RP495 | ZZ5-495 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 158 | Purlin | 2046ZZ52RP496 | ZZ5-496 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 17/08/2015 | 166 |
| 159 | Purlin | 2046ZZ52RP497 | ZZ5-497 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 160 | Purlin | 2046ZZ52RP498 | ZZ5-498 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 161 | Purlin | 2046ZZ52RP499 | ZZ5-499 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 17/08/2015 | 166 |
| 162 | Purlin | 2046ZZ52RP500 | ZZ5-500 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 163 | Purlin | 2046ZZ52RP501 | ZZ5-501 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 164 | Purlin | 2046ZZ52RP502 | ZZ5-502 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 165 | Purlin | 2046ZZ52RP505 | ZZ5-505 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 166 | Purlin | 2046ZZ52RP506 | ZZ5-506 | HEB240 | 1 | 757.29 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 167 | Purlin | 2046ZZ52RP507 | ZZ5-507 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 168 | Purlin | 2046ZZ52RP508 | ZZ5-508 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 169 | Purlin | 2046ZZ52RP509 | ZZ5-509 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 170 | Purlin | 2046ZZ52RP510 | ZZ5-510 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 171 | Purlin | 2046ZZ52RP511 | ZZ5-511 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 172 | Purlin | 2046ZZ52RP512 | ZZ5-512 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 15/06/2015 | 109 |
| 173 | Purlin | 2046ZZ52RP513 | ZZ5-513 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 174 | Purlin | 2046ZZ52RP514 | ZZ5-514 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 175 | Purlin | 2046ZZ52RP515 | ZZ5-515 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/08/2015 | 148 |
| 176 | Purlin | 2046ZZ52RP516 | ZZ5-516 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 177 | Purlin | 2046ZZ52RP517 | ZZ5-517 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 178 | Purlin | 2046ZZ52RP518 | ZZ5-518 | HEB240 | 1 | 779.59 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 179 | Purlin | 2046ZZ52RP519 | ZZ5-519 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 180 | Purlin | 2046ZZ52RP520 | ZZ5-520 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 181 | Purlin | 2046ZZ52RP521 | ZZ5-521 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 182 | Purlin | 2046ZZ52RP522 | ZZ5-522 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 183 | Purlin | 2046ZZ52RP523 | ZZ5-523 | HEB240 | 1 | 758.50 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 184 | Purlin | 2046ZZ52RP553 | ZZ5-553 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 185 | Purlin | 2046ZZ52RP554 | ZZ5-554 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 186 | Purlin | 2046ZZ52RP555 | ZZ5-555 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 187 | Purlin | 2046ZZ52RP556 | ZZ5-556 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 17/08/2015 | 166 |
| 188 | Purlin | 2046ZZ52RP557 | ZZ5-557 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 189 | Purlin | 2046ZZ52RP558 | ZZ5-558 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 190 | Purlin | 2046ZZ52RP559 | ZZ5-559 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 191 | Purlin | 2046ZZ52RP560 | ZZ5-560 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 106 |
| 192 | Purlin | 2046ZZ52RP561 | ZZ5-561 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 193 | Purlin | 2046ZZ52RP562 | ZZ5-562 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 194 | Purlin | 2046ZZ52RP563 | ZZ5-563 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 195 | Purlin | 2046ZZ52RP564 | ZZ5-564 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 196 | Purlin | 2046ZZ52RP565 | ZZ5-565 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 197 | Purlin | 2046ZZ52RP566 | ZZ5-566 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 15/06/2015 | 109 |
| 198 | Purlin | 2046ZZ52RP568 | ZZ5-568 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 199 | Purlin | 2046ZZ52RP569 | ZZ5-569 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 200 | Purlin | 2046ZZ52RP570 | ZZ5-570 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 201 | Purlin | 2046ZZ52RP575 | ZZ5-575 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 202 | Purlin | 2046ZZ52RP576 | ZZ5-576 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 15/06/2015 | 109 |
| 203 | Purlin | 2046ZZ52RP723 | ZZ5-723 | HEA200 | 1 | 402.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 204 | Purlin | 2046ZZ52RP725 | ZZ5-725 | HEB240 | 1 | 755.67 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 205 | Purlin | 2046ZZ53LPR782 | ZZ5-782 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 206 | Purlin | 2046ZZ53LPR783 | ZZ5-783 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 207 | Purlin | 2046ZZ53LPR784 | ZZ5-784 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 208 | Purlin | 2046ZZ53LPR785 | ZZ5-785 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 209 | Purlin | 2046ZZ53LPR786 | ZZ5-786 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 210 | Purlin | 2046ZZ53LPR787 | ZZ5-787 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 211 | Purlin | 2046ZZ53LPR788 | ZZ5-788 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 212 | Purlin | 2046ZZ53LPR789 | ZZ5-789 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 213 | Purlin | 2046ZZ53LPR790 | ZZ5-790 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 214 | Purlin | 2046ZZ53LPR791 | ZZ5-791 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 215 | Purlin | 2046ZZ53LPR792 | ZZ5-792 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 216 | Purlin | 2046ZZ53LPR793 | ZZ5-793 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 217 | Purlin | 2046ZZ53LPR794 | ZZ5-794 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 218 | Purlin | 2046ZZ53LPR795 | ZZ5-795 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 219 | Purlin | 2046ZZ53LPR796 | ZZ5-796 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 220 | Purlin | 2046ZZ53LPR797 | ZZ5-797 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 221 | Purlin | 2046ZZ53LPR798 | ZZ5-798 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 222 | Purlin | 2046ZZ53LPR799 | ZZ5-799 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 223 | Purlin | 2046ZZ53LPR800 | ZZ5-800 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 224 | Purlin | 2046ZZ53LPR801 | ZZ5-801 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 225 | Purlin | 2046ZZ53LPR802 | ZZ5-802 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |

**Table A3-05: Schedule of Roof Purlin Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 226 | Purlin | 2046ZZ53LPR803 | ZZ5-803 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 227 | Purlin | 2046ZZ53LPR804 | ZZ5-804 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 228 | Purlin | 2046ZZ53LPR805 | ZZ5-805 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 229 | Purlin | 2046ZZ53LPR806 | ZZ5-806 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 230 | Purlin | 2046ZZ53LPR807 | ZZ5-807 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 231 | Purlin | 2046ZZ53LPR808 | ZZ5-808 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 232 | Purlin | 2046ZZ53LPR809 | ZZ5-809 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 233 | Purlin | 2046ZZ53LPR810 | ZZ5-810 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 234 | Purlin | 2046ZZ53LPR811 | ZZ5-811 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 235 | Purlin | 2046ZZ53LPR812 | ZZ5-812 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 236 | Purlin | 2046ZZ53LPR813 | ZZ5-813 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 237 | Purlin | 2046ZZ53LPR814 | ZZ5-814 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 238 | Purlin | 2046ZZ53LPR815 | ZZ5-815 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 239 | Purlin | 2046ZZ53LPR816 | ZZ5-816 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 240 | Purlin | 2046ZZ53LPR817 | ZZ5-817 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 241 | Purlin | 2046ZZ53LPR818 | ZZ5-818 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 242 | Purlin | 2046ZZ53LPR819 | ZZ5-819 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 243 | Purlin | 2046ZZ53LPR821 | ZZ5-821 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 244 | Purlin | 2046ZZ53LPR822 | ZZ5-822 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 245 | Purlin | 2046ZZ53LPR823 | ZZ5-823 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 246 | Purlin | 2046ZZ53LPR824 | ZZ5-824 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 247 | Purlin | 2046ZZ53LPR825 | ZZ5-825 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 248 | Purlin | 2046ZZ53LPR826 | ZZ5-826 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 249 | Purlin | 2046ZZ53LPR827 | ZZ5-827 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 250 | Purlin | 2046ZZ53LPR828 | ZZ5-828 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 251 | Purlin | 2046ZZ53LPR829 | ZZ5-829 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 252 | Purlin | 2046ZZ53LPR830 | ZZ5-830 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 253 | Purlin | 2046ZZ53LPR831 | ZZ5-831 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 254 | Purlin | 2046ZZ53LPR832 | ZZ5-832 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 255 | Purlin | 2046ZZ53LPR833 | ZZ5-833 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 256 | Purlin | 2046ZZ53LPR834 | ZZ5-834 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 257 | Purlin | 2046ZZ53LPR835 | ZZ5-835 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 258 | Purlin | 2046ZZ53LPR836 | ZZ5-836 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 259 | Purlin | 2046ZZ53LPR837 | ZZ5-837 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 260 | Purlin | 2046ZZ53LPR838 | ZZ5-838 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 261 | Purlin | 2046ZZ53LPR839 | ZZ5-839 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 262 | Purlin | 2046ZZ53LPR840 | ZZ5-840 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 263 | Purlin | 2046ZZ53LPR841 | ZZ5-841 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 264 | Purlin | 2046ZZ53LPR842 | ZZ5-842 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 265 | Purlin | 2046ZZ53LPR843 | ZZ5-843 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 266 | Purlin | 2046ZZ53LPR844 | ZZ5-844 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 267 | Purlin | 2046ZZ53LPR845 | ZZ5-845 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 268 | Purlin | 2046ZZ53LPR846 | ZZ5-846 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 269 | Purlin | 2046ZZ53LPR847 | ZZ5-847 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 270 | Purlin | 2046ZZ53LPR848 | ZZ5-848 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 271 | Purlin | 2046ZZ53LPR849 | ZZ5-849 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 272 | Purlin | 2046ZZ53LPR850 | ZZ5-850 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 273 | Purlin | 2046ZZ53LPR851 | ZZ5-851 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 274 | Purlin | 2046ZZ53LPR852 | ZZ5-852 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 275 | Purlin | 2046ZZ53LPR853 | ZZ5-853 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 276 | Purlin | 2046ZZ53LPR854 | ZZ5-854 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 277 | Purlin | 2046ZZ53LPR855 | ZZ5-855 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 278 | Purlin | 2046ZZ53LPR856 | ZZ5-856 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 279 | Purlin | 2046ZZ53LPR857 | ZZ5-857 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 280 | Purlin | 2046ZZ53LPR858 | ZZ5-858 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 281 | Purlin | 2046ZZ53LPR859 | ZZ5-859 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 282 | Purlin | 2046ZZ53LPR860 | ZZ5-860 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 283 | Purlin | 2046ZZ53LPR861 | ZZ5-861 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 284 | Purlin | 2046ZZ53LPR862 | ZZ5-862 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 285 | Purlin | 2046ZZ53LPR863 | ZZ5-863 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 286 | Purlin | 2046ZZ53LPR864 | ZZ5-864 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 287 | Purlin | 2046ZZ53LPR865 | ZZ5-865 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 288 | Purlin | 2046ZZ53LPR866 | ZZ5-866 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 289 | Purlin | 2046ZZ53LPR867 | ZZ5-867 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 290 | Purlin | 2046ZZ53LPR868 | ZZ5-868 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 291 | Purlin | 2046ZZ53LPR869 | ZZ5-869 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 292 | Purlin | 2046ZZ53LPR870 | ZZ5-870 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 293 | Purlin | 2046ZZ53LPR871 | ZZ5-871 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 294 | Purlin | 2046ZZ53LPR872 | ZZ5-872 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 295 | Purlin | 2046ZZ53LPR873 | ZZ5-873 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 03/07/2015 | 128 |
| 296 | Purlin | 2046ZZ53LRP678 | ZZ5-678 | HEA200 | 1 | 45.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 19/06/2015 | 113 |
| 297 | Purlin | 2046ZZ53LRP679 | ZZ5-679 | HEA200 | 1 | 45.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 19/06/2015 | 113 |
| 298 | Purlin | 2046ZZ53LRP694 | ZZ5-694 | HEA200 | 1 | 45.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 19/06/2015 | 113 |
| 299 | Purlin | 2046ZZ53LRP695 | ZZ5-695 | HEA200 | 1 | 45.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 19/06/2015 | 113 |
| 300 | Purlin | 2046ZZ53RP619 | ZZ5-619 | HEB240 | 1 | 785.85 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 07/07/2015 | 129 |

**Table A3-05: Schedule of Roof Purlin Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 301 | Purlin | 2046ZZ53RP621 | ZZ5-621 | HEB240 | 1 | 785.85 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 08/07/2015 | 130 |
| 302 | Purlin | 2046ZZ53RP651 | ZZ5-651 | HEB240 | 1 | 785.85 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 07/07/2015 | 129 |
| 303 | Purlin | 2046ZZ53RP652 | ZZ5-652 | HEB240 | 1 | 785.85 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 28/05/2015 | 07/07/2015 | 129 |
| 304 | Purlin | 2046ZZ52LPR734 | ZZ5-734 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 305 | Purlin | 2046ZZ52LPR735 | ZZ5-735 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 306 | Purlin | 2046ZZ52LPR736 | ZZ5-736 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 307 | Purlin | 2046ZZ52LPR737 | ZZ5-737 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 308 | Purlin | 2046ZZ52LPR738 | ZZ5-738 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 309 | Purlin | 2046ZZ52LPR739 | ZZ5-739 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 310 | Purlin | 2046ZZ52LPR740 | ZZ5-740 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 311 | Purlin | 2046ZZ52LPR741 | ZZ5-741 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 312 | Purlin | 2046ZZ52LPR742 | ZZ5-742 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 313 | Purlin | 2046ZZ52LPR743 | ZZ5-743 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 314 | Purlin | 2046ZZ52LPR744 | ZZ5-744 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 315 | Purlin | 2046ZZ52LPR745 | ZZ5-745 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 316 | Purlin | 2046ZZ52LPR746 | ZZ5-746 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 317 | Purlin | 2046ZZ52LPR747 | ZZ5-747 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 318 | Purlin | 2046ZZ52LPR748 | ZZ5-748 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 319 | Purlin | 2046ZZ52LPR749 | ZZ5-749 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 320 | Purlin | 2046ZZ52LPR750 | ZZ5-750 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 321 | Purlin | 2046ZZ52LPR751 | ZZ5-751 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 322 | Purlin | 2046ZZ52LPR752 | ZZ5-752 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 323 | Purlin | 2046ZZ52LPR753 | ZZ5-753 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 324 | Purlin | 2046ZZ52LPR754 | ZZ5-754 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 325 | Purlin | 2046ZZ52LPR755 | ZZ5-755 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 326 | Purlin | 2046ZZ52LPR756 | ZZ5-756 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 327 | Purlin | 2046ZZ52LPR757 | ZZ5-757 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 328 | Purlin | 2046ZZ52LPR758 | ZZ5-758 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 329 | Purlin | 2046ZZ52LPR759 | ZZ5-759 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 330 | Purlin | 2046ZZ52LPR760 | ZZ5-760 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 331 | Purlin | 2046ZZ52LPR761 | ZZ5-761 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 332 | Purlin | 2046ZZ52LPR762 | ZZ5-762 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 333 | Purlin | 2046ZZ52LPR763 | ZZ5-763 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 334 | Purlin | 2046ZZ52LPR764 | ZZ5-764 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 335 | Purlin | 2046ZZ52LPR765 | ZZ5-765 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 336 | Purlin | 2046ZZ52LPR766 | ZZ5-766 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 337 | Purlin | 2046ZZ52LPR767 | ZZ5-767 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 338 | Purlin | 2046ZZ52LPR768 | ZZ5-768 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 339 | Purlin | 2046ZZ52LPR769 | ZZ5-769 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 340 | Purlin | 2046ZZ52LPR770 | ZZ5-770 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 341 | Purlin | 2046ZZ52LPR771 | ZZ5-771 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 342 | Purlin | 2046ZZ52LPR772 | ZZ5-772 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 343 | Purlin | 2046ZZ52LPR773 | ZZ5-773 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 344 | Purlin | 2046ZZ52LPR774 | ZZ5-774 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 345 | Purlin | 2046ZZ52LPR775 | ZZ5-775 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 346 | Purlin | 2046ZZ52LPR776 | ZZ5-776 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 347 | Purlin | 2046ZZ52LPR777 | ZZ5-777 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 348 | Purlin | 2046ZZ52LPR778 | ZZ5-778 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 349 | Purlin | 2046ZZ52LPR779 | ZZ5-779 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 350 | Purlin | 2046ZZ52LPR780 | ZZ5-780 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 351 | Purlin | 2046ZZ52LPR781 | ZZ5-781 | L100*10 | 1 | 3.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 352 | Purlin | 2046ZZ52LRP577 | ZZ5-577 | HEA200 | 1 | 37.98 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 353 | Purlin | 2046ZZ52LRP578 | ZZ5-578 | HEA200 | 1 | 37.98 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 354 | Purlin | 2046ZZ52LRP597 | ZZ5-597 | HEA200 | 1 | 37.98 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 355 | Purlin | 2046ZZ52LRP598 | ZZ5-598 | HEA200 | 1 | 37.98 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 356 | Purlin | 2046ZZ52RP476 | ZZ5-476 | HEB240 | 1 | 937.24 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 31/07/2015 | 143 |
| 357 | Purlin | 2046ZZ52RP477 | ZZ5-477 | HEB240 | 1 | 937.24 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 358 | Purlin | 2046ZZ52RP524 | ZZ5-524 | HEB240 | 1 | 952.66 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 359 | Purlin | 2046ZZ52RP542 | ZZ5-542 | HEB240 | 1 | 937.54 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 360 | Purlin | 2046ZZ52RP543 | ZZ5-543 | HEB240 | 1 | 947.87 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 361 | Purlin | 2046ZZ52RP544 | ZZ5-544 | HEB240 | 1 | 952.66 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 362 | Purlin | 2046ZZ52RP545 | ZZ5-545 | HEB240 | 1 | 940.70 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 363 | Purlin | 2046ZZ52RP546 | ZZ5-546 | HEB240 | 1 | 937.54 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 364 | Purlin | 2046ZZ52RP547 | ZZ5-547 | HEB240 | 1 | 952.66 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 365 | Purlin | 2046ZZ52RP548 | ZZ5-548 | HEB240 | 1 | 947.87 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 366 | Purlin | 2046ZZ52RP549 | ZZ5-549 | HEB240 | 1 | 952.66 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 367 | Purlin | 2046ZZ52RP550 | ZZ5-550 | HEB240 | 1 | 940.70 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 368 | Purlin | 2046ZZ52RP571 | ZZ5-571 | HEA200 | 1 | 401.12 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 369 | Purlin | 2046ZZ52RP572 | ZZ5-572 | HEA200 | 1 | 390.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |
| 370 | Purlin | 2046ZZ52RP573 | ZZ5-573 | HEA200 | 1 | 390.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 148 |
| 371 | Purlin | 2046ZZ52RP574 | ZZ5-574 | HEA200 | 1 | 401.12 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 24/06/2015 | 07/08/2015 | 147 |

**Table A3-06: Schedule of Roof Walkway Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Walkway | 2046ZZ51B253 | ZZ5-253 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 2 | Walkway | 2046ZZ51B254 | ZZ5-254 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 3 | Walkway | 2046ZZ51B255 | ZZ5-255 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 4 | Walkway | 2046ZZ51B256 | ZZ5-256 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 5 | Walkway | 2046ZZ51B257 | ZZ5-257 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 6 | Walkway | 2046ZZ51B258 | ZZ5-258 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 7 | Walkway | 2046ZZ51B259 | ZZ5-259 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 8 | Walkway | 2046ZZ51B262 | ZZ5-262 | IPE300 | 1 | 404.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 9 | Walkway | 2046ZZ51B263 | ZZ5-263 | IPE300 | 1 | 404.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 10 | Walkway | 2046ZZ51B264 | ZZ5-264 | IPE300 | 1 | 404.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 11 | Walkway | 2046ZZ51B265 | ZZ5-265 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 12 | Walkway | 2046ZZ51B266 | ZZ5-266 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 13 | Walkway | 2046ZZ51B267 | ZZ5-267 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 14 | Walkway | 2046ZZ51B268 | ZZ5-268 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 15 | Walkway | 2046ZZ51B269 | ZZ5-269 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 16 | Walkway | 2046ZZ51B270 | ZZ5-270 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 17 | Walkway | 2046ZZ51B271 | ZZ5-271 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 18 | Walkway | 2046ZZ51B272 | ZZ5-272 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 19 | Walkway | 2046ZZ51B273 | ZZ5-273 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 20 | Walkway | 2046ZZ51B274 | ZZ5-274 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 21 | Walkway | 2046ZZ51B275 | ZZ5-275 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 22 | Walkway | 2046ZZ51B276 | ZZ5-276 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 23 | Walkway | 2046ZZ51B277 | ZZ5-277 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 24 | Walkway | 2046ZZ51B278 | ZZ5-278 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 25 | Walkway | 2046ZZ51B279 | ZZ5-279 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 26 | Walkway | 2046ZZ51B280 | ZZ5-280 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 27 | Walkway | 2046ZZ51B281 | ZZ5-281 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 28 | Walkway | 2046ZZ51B282 | ZZ5-282 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 29 | Walkway | 2046ZZ51B283 | ZZ5-283 | IPE300 | 1 | 405.71 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 30 | Walkway | 2046ZZ51B284 | ZZ5-284 | IPE300 | 1 | 405.71 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 31 | Walkway | 2046ZZ51B285 | ZZ5-285 | IPE300 | 1 | 405.71 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 32 | Walkway | 2046ZZ51B286 | ZZ5-286 | IPE300 | 1 | 405.71 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 33 | Walkway | 2046ZZ51B287 | ZZ5-287 | IPE300 | 1 | 405.71 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 34 | Walkway | 2046ZZ51B288 | ZZ5-288 | IPE300 | 1 | 405.71 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 35 | Walkway | 2046ZZ51B289 | ZZ5-289 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 36 | Walkway | 2046ZZ51B290 | ZZ5-290 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 37 | Walkway | 2046ZZ51B291 | ZZ5-291 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 38 | Walkway | 2046ZZ51B292 | ZZ5-292 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 39 | Walkway | 2046ZZ51B293 | ZZ5-293 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 40 | Walkway | 2046ZZ51B294 | ZZ5-294 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 113 |
| 41 | Walkway | 2046ZZ51B295 | ZZ5-295 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 42 | Walkway | 2046ZZ51B296 | ZZ5-296 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 43 | Walkway | 2046ZZ51B297 | ZZ5-297 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 15/06/2015 | 109 |
| 44 | Walkway | 2046ZZ51B298 | ZZ5-298 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 45 | Walkway | 2046ZZ51B299 | ZZ5-299 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 46 | Walkway | 2046ZZ51B300 | ZZ5-300 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 47 | Walkway | 2046ZZ51B302 | ZZ5-302 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 48 | Walkway | 2046ZZ51B303 | ZZ5-303 | IPE300 | 1 | 404.61 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 49 | Walkway | 2046ZZ51B319 | ZZ5-319 | HEA220 | 1 | 467.97 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 50 | Walkway | 2046ZZ51B320 | ZZ5-320 | HEA220 | 1 | 472.84 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 51 | Walkway | 2046ZZ51B321 | ZZ5-321 | HEA220 | 1 | 472.91 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 52 | Walkway | 2046ZZ51B322 | ZZ5-322 | HEA220 | 1 | 472.84 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 53 | Walkway | 2046ZZ51B323 | ZZ5-323 | HEA220 | 1 | 467.97 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 54 | Walkway | 2046ZZ51B324 | ZZ5-324 | HEA220 | 1 | 490.26 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 55 | Walkway | 2046ZZ51B325 | ZZ5-325 | HEA220 | 1 | 490.40 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 56 | Walkway | 2046ZZ51B326 | ZZ5-326 | HEA220 | 1 | 490.26 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 57 | Walkway | 2046ZZ51B327 | ZZ5-327 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 58 | Walkway | 2046ZZ51B328 | ZZ5-328 | HEA220 | 1 | 468.94 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 59 | Walkway | 2046ZZ51B329 | ZZ5-329 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 60 | Walkway | 2046ZZ51B331 | ZZ5-331 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 61 | Walkway | 2046ZZ51B332 | ZZ5-332 | HEA220 | 1 | 468.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 62 | Walkway | 2046ZZ51B333 | ZZ5-333 | HEA220 | 1 | 474.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 63 | Walkway | 2046ZZ51B334 | ZZ5-334 | HEA220 | 1 | 468.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 19/06/2015 | 114 |
| 64 | Walkway | 2046ZZ51B335 | ZZ5-335 | IPE220 | 1 | 154.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 65 | Walkway | 2046ZZ51B336 | ZZ5-336 | IPE220 | 1 | 154.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 66 | Walkway | 2046ZZ51LPR344 | ZZ5-344 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 67 | Walkway | 2046ZZ51LPR345 | ZZ5-345 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 68 | Walkway | 2046ZZ51LPR346 | ZZ5-346 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 69 | Walkway | 2046ZZ51LPR347 | ZZ5-347 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 70 | Walkway | 2046ZZ51LPR348 | ZZ5-348 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 71 | Walkway | 2046ZZ51LPR349 | ZZ5-349 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 72 | Walkway | 2046ZZ51LPR350 | ZZ5-350 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 73 | Walkway | 2046ZZ51LPR351 | ZZ5-351 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 74 | Walkway | 2046ZZ51LPR352 | ZZ5-352 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 75 | Walkway | 2046ZZ51LPR353 | ZZ5-353 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 76 | Walkway | 2046ZZ51LPR354 | ZZ5-354 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 77 | Walkway | 2046ZZ51LPR355 | ZZ5-355 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 78 | Walkway | 2046ZZ51LPR356 | ZZ5-356 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 79 | Walkway | 2046ZZ51LPR357 | ZZ5-357 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 80 | Walkway | 2046ZZ51LPR359 | ZZ5-359 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 81 | Walkway | 2046ZZ51LPR360 | ZZ5-360 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 82 | Walkway | 2046ZZ51LPR361 | ZZ5-361 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 83 | Walkway | 2046ZZ51LPR362 | ZZ5-362 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 84 | Walkway | 2046ZZ51LPR363 | ZZ5-363 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 85 | Walkway | 2046ZZ51LPR364 | ZZ5-364 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 86 | Walkway | 2046ZZ51LPR365 | ZZ5-365 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 87 | Walkway | 2046ZZ51LPR366 | ZZ5-366 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 88 | Walkway | 2046ZZ51LPR367 | ZZ5-367 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 89 | Walkway | 2046ZZ51LPR368 | ZZ5-368 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 90 | Walkway | 2046ZZ51LPR369 | ZZ5-369 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 91 | Walkway | 2046ZZ51LPR370 | ZZ5-370 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 92 | Walkway | 2046ZZ51LPR372 | ZZ5-372 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 93 | Walkway | 2046ZZ51LPR373 | ZZ5-373 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 94 | Walkway | 2046ZZ51LPR374 | ZZ5-374 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 95 | Walkway | 2046ZZ51LPR375 | ZZ5-375 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 96 | Walkway | 2046ZZ51LPR376 | ZZ5-376 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 97 | Walkway | 2046ZZ51LPR377 | ZZ5-377 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 98 | Walkway | 2046ZZ51LPR378 | ZZ5-378 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 99 | Walkway | 2046ZZ51LPR380 | ZZ5-380 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 100 | Walkway | 2046ZZ51LPR381 | ZZ5-381 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 101 | Walkway | 2046ZZ51LPR382 | ZZ5-382 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 102 | Walkway | 2046ZZ51LPR383 | ZZ5-383 | IPE100 | 1 | 6.41 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |

**Table A3-06: Schedule of Roof Walkway Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 103 | Walkway | 2046ZZ51LPR384 | ZZ5-384 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 104 | Walkway | 2046ZZ51LPR385 | ZZ5-385 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 105 | Walkway | 2046ZZ51LPR386 | ZZ5-386 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 106 | Walkway | 2046ZZ51LPR387 | ZZ5-387 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 107 | Walkway | 2046ZZ51LPR388 | ZZ5-388 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 108 | Walkway | 2046ZZ51LPR389 | ZZ5-389 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 109 | Walkway | 2046ZZ51LPR390 | ZZ5-390 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 110 | Walkway | 2046ZZ51LPR391 | ZZ5-391 | IPE100 | 1 | 6.41 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 111 | Walkway | 2046ZZ51LPR392 | ZZ5-392 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 112 | Walkway | 2046ZZ51LPR393 | ZZ5-393 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 113 | Walkway | 2046ZZ51LPR394 | ZZ5-394 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 114 | Walkway | 2046ZZ51LPR395 | ZZ5-395 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 115 | Walkway | 2046ZZ51LPR396 | ZZ5-396 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 116 | Walkway | 2046ZZ51LPR397 | ZZ5-397 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 117 | Walkway | 2046ZZ51LPR398 | ZZ5-398 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 118 | Walkway | 2046ZZ51LPR399 | ZZ5-399 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 119 | Walkway | 2046ZZ51LPR400 | ZZ5-400 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 120 | Walkway | 2046ZZ51LPR401 | ZZ5-401 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 121 | Walkway | 2046ZZ51LPR402 | ZZ5-402 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 122 | Walkway | 2046ZZ51LPR403 | ZZ5-403 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 123 | Walkway | 2046ZZ51LPR404 | ZZ5-404 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 124 | Walkway | 2046ZZ51LPR405 | ZZ5-405 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 125 | Walkway | 2046ZZ51LPR406 | ZZ5-406 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 126 | Walkway | 2046ZZ51LPR407 | ZZ5-407 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 127 | Walkway | 2046ZZ51LPR408 | ZZ5-408 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 128 | Walkway | 2046ZZ51LPR409 | ZZ5-409 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 129 | Walkway | 2046ZZ51LPR410 | ZZ5-410 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 130 | Walkway | 2046ZZ51LPR411 | ZZ5-411 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 131 | Walkway | 2046ZZ51LPR412 | ZZ5-412 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 132 | Walkway | 2046ZZ51LPR413 | ZZ5-413 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 133 | Walkway | 2046ZZ51LPR414 | ZZ5-414 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 134 | Walkway | 2046ZZ51LPR415 | ZZ5-415 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 135 | Walkway | 2046ZZ51LPR416 | ZZ5-416 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 136 | Walkway | 2046ZZ51LPR417 | ZZ5-417 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 137 | Walkway | 2046ZZ51LPR418 | ZZ5-418 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 138 | Walkway | 2046ZZ51LPR419 | ZZ5-419 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 139 | Walkway | 2046ZZ51LPR420 | ZZ5-420 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 140 | Walkway | 2046ZZ51LPR421 | ZZ5-421 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 141 | Walkway | 2046ZZ51LPR422 | ZZ5-422 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 142 | Walkway | 2046ZZ51LPR423 | ZZ5-423 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 143 | Walkway | 2046ZZ51LPR424 | ZZ5-424 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 144 | Walkway | 2046ZZ51LPR425 | ZZ5-425 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 145 | Walkway | 2046ZZ51LPR426 | ZZ5-426 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 146 | Walkway | 2046ZZ51LPR427 | ZZ5-427 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 147 | Walkway | 2046ZZ51LPR428 | ZZ5-428 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 148 | Walkway | 2046ZZ51LPR429 | ZZ5-429 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 149 | Walkway | 2046ZZ51LPR430 | ZZ5-430 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 150 | Walkway | 2046ZZ51LPR431 | ZZ5-431 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 151 | Walkway | 2046ZZ51LPR432 | ZZ5-432 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 152 | Walkway | 2046ZZ51LPR433 | ZZ5-433 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 153 | Walkway | 2046ZZ51LPR434 | ZZ5-434 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 154 | Walkway | 2046ZZ51LPR435 | ZZ5-435 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 155 | Walkway | 2046ZZ51LPR436 | ZZ5-436 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 156 | Walkway | 2046ZZ51LPR437 | ZZ5-437 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 157 | Walkway | 2046ZZ51LPR438 | ZZ5-438 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 158 | Walkway | 2046ZZ51LPR439 | ZZ5-439 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 159 | Walkway | 2046ZZ51LPR440 | ZZ5-440 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 160 | Walkway | 2046ZZ51LPR441 | ZZ5-441 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 161 | Walkway | 2046ZZ51LPR442 | ZZ5-442 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 162 | Walkway | 2046ZZ51LPR443 | ZZ5-443 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 163 | Walkway | 2046ZZ51LPR444 | ZZ5-444 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 164 | Walkway | 2046ZZ51LPR445 | ZZ5-445 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 165 | Walkway | 2046ZZ51LPR446 | ZZ5-446 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 166 | Walkway | 2046ZZ51LPR447 | ZZ5-447 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 167 | Walkway | 2046ZZ51LPR448 | ZZ5-448 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 168 | Walkway | 2046ZZ51LPR449 | ZZ5-449 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 12/06/2015 | 105 |
| 169 | Walkway | 2046ZZ51LPR450 | ZZ5-450 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 170 | Walkway | 2046ZZ51LPR451 | ZZ5-451 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 171 | Walkway | 2046ZZ51LPR452 | ZZ5-452 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 172 | Walkway | 2046ZZ51LPR453 | ZZ5-453 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 173 | Walkway | 2046ZZ51LPR454 | ZZ5-454 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 174 | Walkway | 2046ZZ51LPR455 | ZZ5-455 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 175 | Walkway | 2046ZZ51LPR456 | ZZ5-456 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 176 | Walkway | 2046ZZ51LPR457 | ZZ5-457 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 177 | Walkway | 2046ZZ51LPR458 | ZZ5-458 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 178 | Walkway | 2046ZZ51LPR459 | ZZ5-459 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 179 | Walkway | 2046ZZ51LPR460 | ZZ5-460 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 180 | Walkway | 2046ZZ51LPR461 | ZZ5-461 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 181 | Walkway | 2046ZZ51LPR462 | ZZ5-462 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 182 | Walkway | 2046ZZ51LPR463 | ZZ5-463 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 183 | Walkway | 2046ZZ51LPR464 | ZZ5-464 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 184 | Walkway | 2046ZZ51LPR465 | ZZ5-465 | IPE100 | 1 | 6.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 185 | Walkway | 2046ZZ51LPR466 | ZZ5-466 | IPE100 | 1 | 6.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 186 | Walkway | 2046ZZ51LPR467 | ZZ5-467 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 187 | Walkway | 2046ZZ51LPR468 | ZZ5-468 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 188 | Walkway | 2046ZZ51LPR469 | ZZ5-469 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 189 | Walkway | 2046ZZ51LPR470 | ZZ5-470 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 190 | Walkway | 2046ZZ51LPR471 | ZZ5-471 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 191 | Walkway | 2046ZZ51LPR732 | ZZ5-732 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 18/06/2015 | 111 |
| 192 | Walkway | 2046ZZ50B2 | ZZ5-2 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 193 | Walkway | 2046ZZ50B3 | ZZ5-3 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 194 | Walkway | 2046ZZ50B4 | ZZ5-4 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 195 | Walkway | 2046ZZ50B5 | ZZ5-5 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 196 | Walkway | 2046ZZ50B6 | ZZ5-6 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 197 | Walkway | 2046ZZ50B7 | ZZ5-7 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 198 | Walkway | 2046ZZ50B8 | ZZ5-8 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 199 | Walkway | 2046ZZ50B9 | ZZ5-9 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 200 | Walkway | 2046ZZ50B10 | ZZ5-10 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 201 | Walkway | 2046ZZ50B11 | ZZ5-11 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 202 | Walkway | 2046ZZ50B12 | ZZ5-12 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 203 | Walkway | 2046ZZ50B13 | ZZ5-13 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 204 | Walkway | 2046ZZ50B14 | ZZ5-14 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |

**Table A3-06: Schedule of Roof Walkway Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 205 | Walkway | 2046ZZ50B15 | ZZ5-15 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 206 | Walkway | 2046ZZ50B16 | ZZ5-16 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 207 | Walkway | 2046ZZ50B17 | ZZ5-17 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 208 | Walkway | 2046ZZ50B18 | ZZ5-18 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 209 | Walkway | 2046ZZ50B19 | ZZ5-19 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 210 | Walkway | 2046ZZ50B20 | ZZ5-20 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 211 | Walkway | 2046ZZ50B21 | ZZ5-21 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 212 | Walkway | 2046ZZ50B22 | ZZ5-22 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 213 | Walkway | 2046ZZ50B23 | ZZ5-23 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 214 | Walkway | 2046ZZ50B24 | ZZ5-24 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 215 | Walkway | 2046ZZ50B25 | ZZ5-25 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 216 | Walkway | 2046ZZ50B26 | ZZ5-26 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 217 | Walkway | 2046ZZ50B27 | ZZ5-27 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 218 | Walkway | 2046ZZ50B28 | ZZ5-28 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 219 | Walkway | 2046ZZ50B29 | ZZ5-29 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 24/06/2015 | 117 |
| 220 | Walkway | 2046ZZ50B30 | ZZ5-30 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 221 | Walkway | 2046ZZ50B31 | ZZ5-31 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 222 | Walkway | 2046ZZ50B32 | ZZ5-32 | IPE300 | 1 | 405.75 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 223 | Walkway | 2046ZZ50B33 | ZZ5-33 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 224 | Walkway | 2046ZZ50B34 | ZZ5-34 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 225 | Walkway | 2046ZZ50B35 | ZZ5-35 | IPE300 | 1 | 399.47 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 226 | Walkway | 2046ZZ50B36 | ZZ5-36 | IPE300 | 1 | 399.47 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 227 | Walkway | 2046ZZ50B37 | ZZ5-37 | IPE300 | 1 | 399.47 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 228 | Walkway | 2046ZZ50B38 | ZZ5-38 | IPE300 | 1 | 399.47 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 229 | Walkway | 2046ZZ50B39 | ZZ5-39 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 230 | Walkway | 2046ZZ50B40 | ZZ5-40 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 231 | Walkway | 2046ZZ50B41 | ZZ5-41 | IPE300 | 1 | 399.47 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 232 | Walkway | 2046ZZ50B42 | ZZ5-42 | IPE300 | 1 | 399.47 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 233 | Walkway | 2046ZZ50B43 | ZZ5-43 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 30/06/2015 | 124 |
| 234 | Walkway | 2046ZZ50B44 | ZZ5-44 | IPE300 | 1 | 393.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 235 | Walkway | 2046ZZ50B53 | ZZ5-53 | HEA220 | 1 | 467.97 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 236 | Walkway | 2046ZZ50B54 | ZZ5-54 | HEA220 | 1 | 472.84 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 237 | Walkway | 2046ZZ50B55 | ZZ5-55 | HEA220 | 1 | 472.92 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 238 | Walkway | 2046ZZ50B56 | ZZ5-56 | HEA220 | 1 | 472.84 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 239 | Walkway | 2046ZZ50B57 | ZZ5-57 | HEA220 | 1 | 467.97 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 240 | Walkway | 2046ZZ50B58 | ZZ5-58 | HEA220 | 1 | 490.26 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 241 | Walkway | 2046ZZ50B59 | ZZ5-59 | HEA220 | 1 | 490.40 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 242 | Walkway | 2046ZZ50B60 | ZZ5-60 | HEA220 | 1 | 490.26 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 243 | Walkway | 2046ZZ50B61 | ZZ5-61 | HEA220 | 1 | 467.97 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 244 | Walkway | 2046ZZ50B62 | ZZ5-62 | HEA220 | 1 | 472.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 245 | Walkway | 2046ZZ50B63 | ZZ5-63 | HEA220 | 1 | 472.93 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 246 | Walkway | 2046ZZ50B64 | ZZ5-64 | HEA220 | 1 | 472.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 247 | Walkway | 2046ZZ50B65 | ZZ5-65 | HEA220 | 1 | 467.97 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 248 | Walkway | 2046ZZ50B66 | ZZ5-66 | HEA220 | 1 | 490.26 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 249 | Walkway | 2046ZZ50B67 | ZZ5-67 | HEA220 | 1 | 490.40 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 250 | Walkway | 2046ZZ50B68 | ZZ5-68 | HEA220 | 1 | 490.26 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 251 | Walkway | 2046ZZ50B69 | ZZ5-69 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 252 | Walkway | 2046ZZ50B70 | ZZ5-70 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 253 | Walkway | 2046ZZ50B71 | ZZ5-71 | HEA220 | 1 | 468.94 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 254 | Walkway | 2046ZZ50B72 | ZZ5-72 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 255 | Walkway | 2046ZZ50B73 | ZZ5-73 | HEA220 | 1 | 468.94 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 256 | Walkway | 2046ZZ50B74 | ZZ5-74 | HEA220 | 1 | 468.94 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 257 | Walkway | 2046ZZ50B75 | ZZ5-75 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 258 | Walkway | 2046ZZ50B76 | ZZ5-76 | HEA220 | 1 | 468.94 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 259 | Walkway | 2046ZZ50B77 | ZZ5-77 | HEA220 | 1 | 474.77 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 260 | Walkway | 2046ZZ50B78 | ZZ5-78 | HEA220 | 1 | 474.73 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 261 | Walkway | 2046ZZ50B79 | ZZ5-79 | HEA220 | 1 | 468.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 262 | Walkway | 2046ZZ50B80 | ZZ5-80 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 263 | Walkway | 2046ZZ50B81 | ZZ5-81 | HEA220 | 1 | 468.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 264 | Walkway | 2046ZZ50B82 | ZZ5-82 | HEA220 | 1 | 468.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 265 | Walkway | 2046ZZ50B83 | ZZ5-83 | HEA220 | 1 | 492.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 07/07/2015 | 129 |
| 266 | Walkway | 2046ZZ50B84 | ZZ5-84 | HEA220 | 1 | 468.86 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 02/07/2015 | 125 |
| 267 | Walkway | 2046ZZ50B86 | ZZ5-86 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 268 | Walkway | 2046ZZ50B87 | ZZ5-87 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 269 | Walkway | 2046ZZ50B88 | ZZ5-88 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 270 | Walkway | 2046ZZ50B89 | ZZ5-89 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 271 | Walkway | 2046ZZ50B90 | ZZ5-90 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 272 | Walkway | 2046ZZ50B91 | ZZ5-91 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 273 | Walkway | 2046ZZ50B92 | ZZ5-92 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 274 | Walkway | 2046ZZ50B93 | ZZ5-93 | HEA220 | 1 | 22.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 14/07/2015 | 133 |
| 275 | Walkway | 2046ZZ50B97 | ZZ5-97 | IPE220 | 1 | 154.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 276 | Walkway | 2046ZZ50B98 | ZZ5-98 | IPE220 | 1 | 154.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 277 | Walkway | 2046ZZ50B99 | ZZ5-99 | IPE220 | 1 | 154.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 278 | Walkway | 2046ZZ50B100 | ZZ5-100 | IPE220 | 1 | 154.28 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 279 | Walkway | 2046ZZ50B730 | ZZ5-730 | IPE300 | 1 | 321.56 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 08/07/2015 | 130 |
| 280 | Walkway | 2046ZZ50LPR117 | ZZ5-117 | IPE100 | 1 | 5.46 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 281 | Walkway | 2046ZZ50LPR119 | ZZ5-119 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 282 | Walkway | 2046ZZ50LPR120 | ZZ5-120 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 283 | Walkway | 2046ZZ50LPR121 | ZZ5-121 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 284 | Walkway | 2046ZZ50LPR122 | ZZ5-122 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 285 | Walkway | 2046ZZ50LPR123 | ZZ5-123 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 286 | Walkway | 2046ZZ50LPR124 | ZZ5-124 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 287 | Walkway | 2046ZZ50LPR125 | ZZ5-125 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 288 | Walkway | 2046ZZ50LPR126 | ZZ5-126 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 289 | Walkway | 2046ZZ50LPR127 | ZZ5-127 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 290 | Walkway | 2046ZZ50LPR128 | ZZ5-128 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 291 | Walkway | 2046ZZ50LPR129 | ZZ5-129 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 292 | Walkway | 2046ZZ50LPR130 | ZZ5-130 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 293 | Walkway | 2046ZZ50LPR131 | ZZ5-131 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 294 | Walkway | 2046ZZ50LPR132 | ZZ5-132 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 295 | Walkway | 2046ZZ50LPR133 | ZZ5-133 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 296 | Walkway | 2046ZZ50LPR134 | ZZ5-134 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 297 | Walkway | 2046ZZ50LPR135 | ZZ5-135 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 298 | Walkway | 2046ZZ50LPR136 | ZZ5-136 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 299 | Walkway | 2046ZZ50LPR137 | ZZ5-137 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 300 | Walkway | 2046ZZ50LPR138 | ZZ5-138 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 301 | Walkway | 2046ZZ50LPR139 | ZZ5-139 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 302 | Walkway | 2046ZZ50LPR140 | ZZ5-140 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 303 | Walkway | 2046ZZ50LPR141 | ZZ5-141 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 304 | Walkway | 2046ZZ50LPR142 | ZZ5-142 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 305 | Walkway | 2046ZZ50LPR143 | ZZ5-143 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 306 | Walkway | 2046ZZ50LPR144 | ZZ5-144 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |

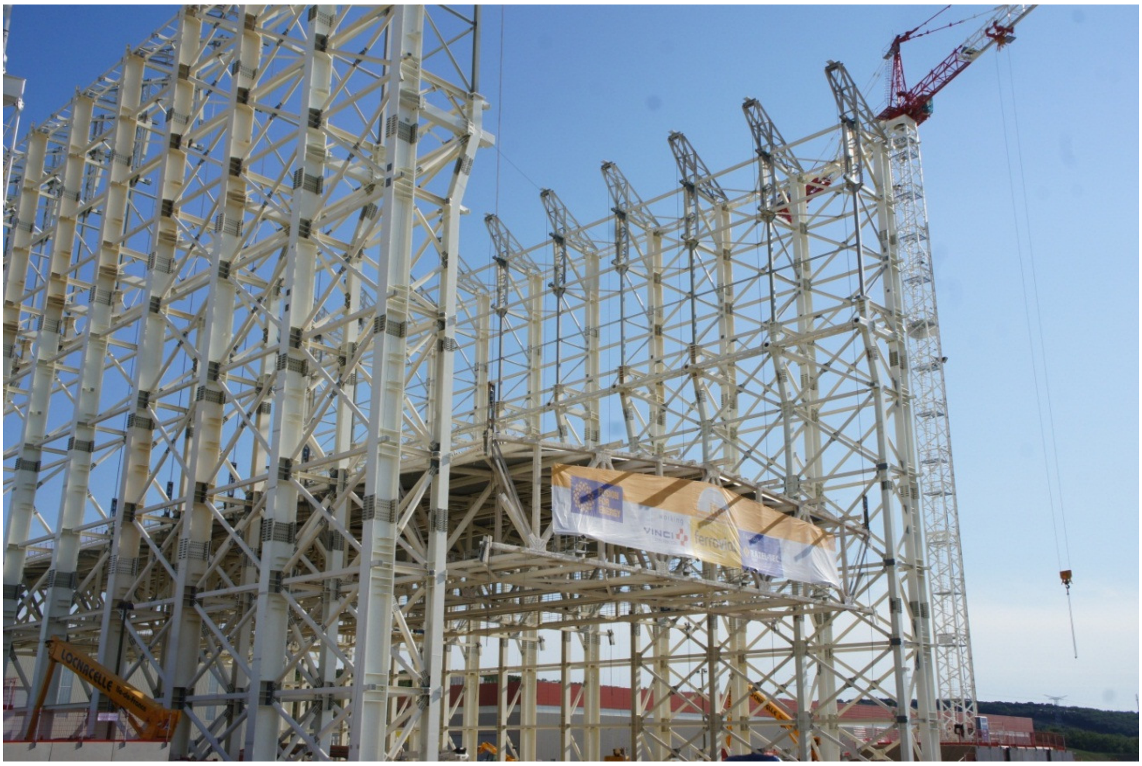
**Table A3-06: Schedule of Roof Walkway Components**

| Index | Component description | Factory Reference | Site Reference | Material | Quantity | Weight (kg) | Erection Zone | Column Level | Gridline Reference | Paint Scheme | Factory Location | Fabrication Start Date | Expedition Date | Delivery Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 307 | Walkway | 2046ZZ50LPR145 | ZZ5-145 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 308 | Walkway | 2046ZZ50LPR146 | ZZ5-146 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 309 | Walkway | 2046ZZ50LPR147 | ZZ5-147 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 310 | Walkway | 2046ZZ50LPR148 | ZZ5-148 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 311 | Walkway | 2046ZZ50LPR149 | ZZ5-149 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 312 | Walkway | 2046ZZ50LPR150 | ZZ5-150 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 313 | Walkway | 2046ZZ50LPR151 | ZZ5-151 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 314 | Walkway | 2046ZZ50LPR152 | ZZ5-152 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 315 | Walkway | 2046ZZ50LPR153 | ZZ5-153 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 316 | Walkway | 2046ZZ50LPR154 | ZZ5-154 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 317 | Walkway | 2046ZZ50LPR155 | ZZ5-155 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 318 | Walkway | 2046ZZ50LPR156 | ZZ5-156 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 319 | Walkway | 2046ZZ50LPR157 | ZZ5-157 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 320 | Walkway | 2046ZZ50LPR158 | ZZ5-158 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 321 | Walkway | 2046ZZ50LPR159 | ZZ5-159 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 322 | Walkway | 2046ZZ50LPR160 | ZZ5-160 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 323 | Walkway | 2046ZZ50LPR161 | ZZ5-161 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 324 | Walkway | 2046ZZ50LPR162 | ZZ5-162 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 325 | Walkway | 2046ZZ50LPR163 | ZZ5-163 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 326 | Walkway | 2046ZZ50LPR164 | ZZ5-164 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 327 | Walkway | 2046ZZ50LPR165 | ZZ5-165 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 328 | Walkway | 2046ZZ50LPR166 | ZZ5-166 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 329 | Walkway | 2046ZZ50LPR167 | ZZ5-167 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 330 | Walkway | 2046ZZ50LPR168 | ZZ5-168 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 331 | Walkway | 2046ZZ50LPR169 | ZZ5-169 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 332 | Walkway | 2046ZZ50LPR170 | ZZ5-170 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 333 | Walkway | 2046ZZ50LPR171 | ZZ5-171 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 334 | Walkway | 2046ZZ50LPR172 | ZZ5-172 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 335 | Walkway | 2046ZZ50LPR173 | ZZ5-173 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 336 | Walkway | 2046ZZ50LPR174 | ZZ5-174 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 337 | Walkway | 2046ZZ50LPR175 | ZZ5-175 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 338 | Walkway | 2046ZZ50LPR176 | ZZ5-176 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 339 | Walkway | 2046ZZ50LPR177 | ZZ5-177 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 340 | Walkway | 2046ZZ50LPR178 | ZZ5-178 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 341 | Walkway | 2046ZZ50LPR179 | ZZ5-179 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 342 | Walkway | 2046ZZ50LPR180 | ZZ5-180 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 343 | Walkway | 2046ZZ50LPR181 | ZZ5-181 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 344 | Walkway | 2046ZZ50LPR182 | ZZ5-182 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 345 | Walkway | 2046ZZ50LPR183 | ZZ5-183 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 346 | Walkway | 2046ZZ50LPR184 | ZZ5-184 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 347 | Walkway | 2046ZZ50LPR185 | ZZ5-185 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 348 | Walkway | 2046ZZ50LPR186 | ZZ5-186 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 349 | Walkway | 2046ZZ50LPR187 | ZZ5-187 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 350 | Walkway | 2046ZZ50LPR188 | ZZ5-188 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 351 | Walkway | 2046ZZ50LPR189 | ZZ5-189 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 352 | Walkway | 2046ZZ50LPR190 | ZZ5-190 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 353 | Walkway | 2046ZZ50LPR191 | ZZ5-191 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 354 | Walkway | 2046ZZ50LPR192 | ZZ5-192 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 355 | Walkway | 2046ZZ50LPR193 | ZZ5-193 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 356 | Walkway | 2046ZZ50LPR194 | ZZ5-194 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 357 | Walkway | 2046ZZ50LPR195 | ZZ5-195 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 358 | Walkway | 2046ZZ50LPR196 | ZZ5-196 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 359 | Walkway | 2046ZZ50LPR197 | ZZ5-197 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 360 | Walkway | 2046ZZ50LPR198 | ZZ5-198 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 361 | Walkway | 2046ZZ50LPR199 | ZZ5-199 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 362 | Walkway | 2046ZZ50LPR200 | ZZ5-200 | IPE100 | 1 | 6.23 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 363 | Walkway | 2046ZZ50LPR201 | ZZ5-201 | IPE100 | 1 | 5.01 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 364 | Walkway | 2046ZZ50LPR202 | ZZ5-202 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 365 | Walkway | 2046ZZ50LPR203 | ZZ5-203 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 366 | Walkway | 2046ZZ50LPR204 | ZZ5-204 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 367 | Walkway | 2046ZZ50LPR205 | ZZ5-205 | IPE100 | 1 | 5.01 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 368 | Walkway | 2046ZZ50LPR206 | ZZ5-206 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 369 | Walkway | 2046ZZ50LPR207 | ZZ5-207 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 370 | Walkway | 2046ZZ50LPR208 | ZZ5-208 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 371 | Walkway | 2046ZZ50LPR209 | ZZ5-209 | IPE100 | 1 | 5.01 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 372 | Walkway | 2046ZZ50LPR210 | ZZ5-210 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 373 | Walkway | 2046ZZ50LPR211 | ZZ5-211 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 374 | Walkway | 2046ZZ50LPR212 | ZZ5-212 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 375 | Walkway | 2046ZZ50LPR213 | ZZ5-213 | IPE100 | 1 | 5.01 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 376 | Walkway | 2046ZZ50LPR214 | ZZ5-214 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 377 | Walkway | 2046ZZ50LPR215 | ZZ5-215 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 378 | Walkway | 2046ZZ50LPR216 | ZZ5-216 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 379 | Walkway | 2046ZZ50LPR217 | ZZ5-217 | IPE100 | 1 | 5.46 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 380 | Walkway | 2046ZZ50LPR218 | ZZ5-218 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 381 | Walkway | 2046ZZ50LPR219 | ZZ5-219 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 382 | Walkway | 2046ZZ50LPR220 | ZZ5-220 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 383 | Walkway | 2046ZZ50LPR229 | ZZ5-229 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 384 | Walkway | 2046ZZ50LPR230 | ZZ5-230 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 385 | Walkway | 2046ZZ50LPR231 | ZZ5-231 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 386 | Walkway | 2046ZZ50LPR232 | ZZ5-232 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 387 | Walkway | 2046ZZ50LPR233 | ZZ5-233 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 388 | Walkway | 2046ZZ50LPR234 | ZZ5-234 | IPE100 | 1 | 6.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 389 | Walkway | 2046ZZ50LPR235 | ZZ5-235 | IPE100 | 1 | 6.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 390 | Walkway | 2046ZZ50LPR236 | ZZ5-236 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 391 | Walkway | 2046ZZ50LPR237 | ZZ5-237 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 392 | Walkway | 2046ZZ50LPR238 | ZZ5-238 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 393 | Walkway | 2046ZZ50LPR239 | ZZ5-239 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 394 | Walkway | 2046ZZ50LPR240 | ZZ5-240 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 395 | Walkway | 2046ZZ50LPR241 | ZZ5-241 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 396 | Walkway | 2046ZZ50LPR242 | ZZ5-242 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 397 | Walkway | 2046ZZ50LPR243 | ZZ5-243 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 398 | Walkway | 2046ZZ50LPR244 | ZZ5-244 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 399 | Walkway | 2046ZZ50LPR245 | ZZ5-245 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 400 | Walkway | 2046ZZ50LPR246 | ZZ5-246 | IPE100 | 1 | 6.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 401 | Walkway | 2046ZZ50LPR247 | ZZ5-247 | IPE100 | 1 | 6.14 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 402 | Walkway | 2046ZZ50LPR248 | ZZ5-248 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 403 | Walkway | 2046ZZ50LPR249 | ZZ5-249 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 404 | Walkway | 2046ZZ50LPR250 | ZZ5-250 | IPE100 | 1 | 4.45 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 405 | Walkway | 2046ZZ50LPR251 | ZZ5-251 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 406 | Walkway | 2046ZZ50LPR252 | ZZ5-252 | IPE100 | 1 | 5.58 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 11/05/2015 | 11/06/2015 | 104 |
| 407 | Walkway | 2046ZZ51B261 | ZZ5-261 | IPE300 | 1 | 408.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 00/01/1900 | 01/09/2015 | 157 |
| 408 | Walkway | 2046ZZ51B304 | ZZ5-304 | IPE300 | 1 | 408.05 | Z | 5 | 13.1-13.4 | Without Intumescent | Portugal | 00/01/1900 | 01/09/2015 | 157 |

## Appendix 4: Photographs taken during the fabrication and erection of the Assembly Hall

This appendix shows photographs taken during the fabrication and erection activities on the Assembly Hall, starting with the most recent.

Photograph 1: 2015-09-11 – Roof structure lifted to its final position at 60m height


Photograph 2: 2015-09-10 - Roof structure lifted to about 20m height


**Photograph 3: 2015-09-10 – View of the structure from the NW during roof lifting**


**Photograph 4: 2015-09-09 – Lift off of the roof to allow all checks to be performed**

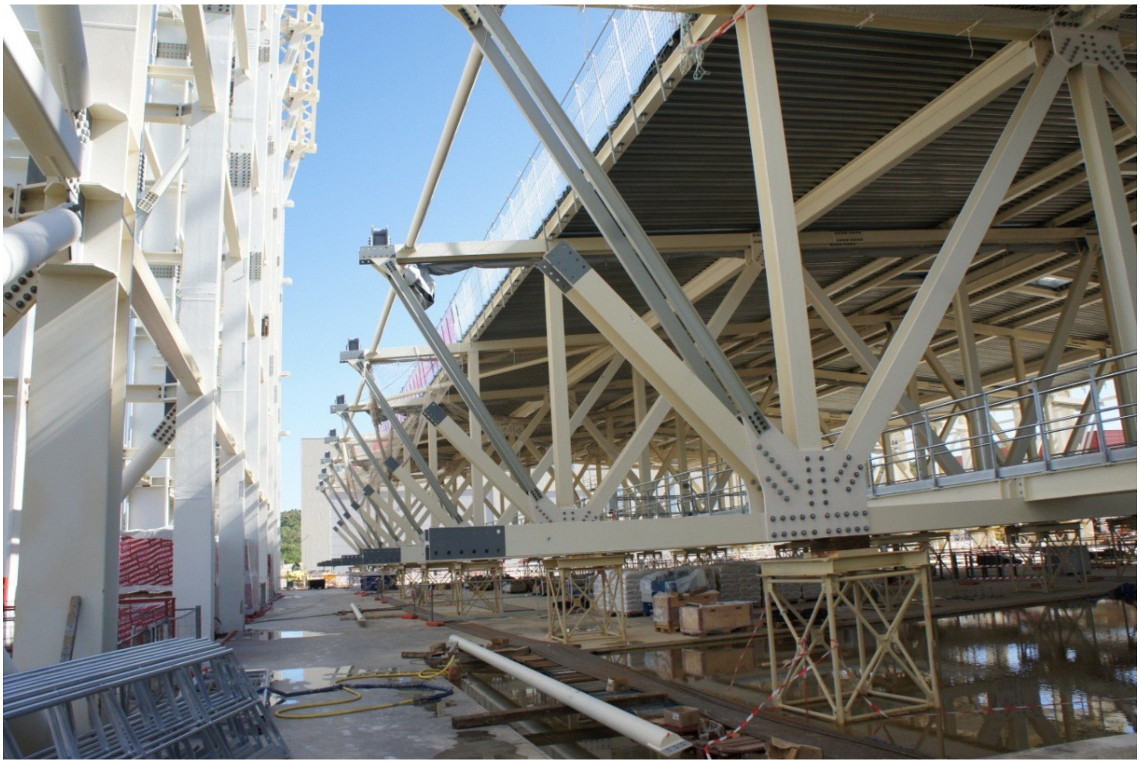
**Photograph 5: 2015-09-08 – Columns ready to receive the roof pre-assembled at ground level**

**Photograph 6: 2015-09-08 – View of the temporary lifting frames at the top of the columns**

**Photograph 7: 2015-08-25 – Column Level 5 being completed**

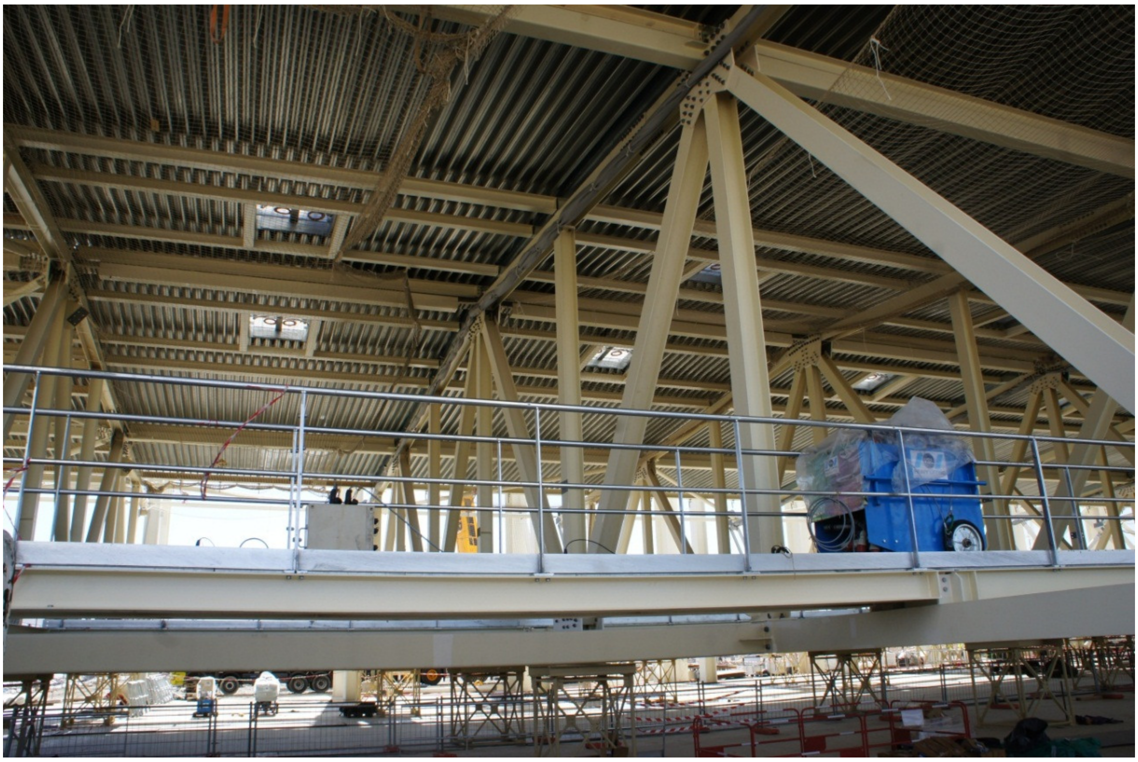
**Photograph 8: 2015-08-25 – Final touches to the roof structure at ground level**

**Photograph 9: 2015-08-25 – Lifting frame to be installed at the top of the column**



**Photograph 10: 2015-08-25 – View of the roof end to be attached to the lifting jacks**

**Photograph 11: 2015-08-25 – Vermiculite fire protection being applied to the roof steelwork**



**Photograph 12: 2015-08-25 – Walkways installed at the bottom chord level of the roof trusses**

**Photograph 13: 2015-08-25 – synchronised lifting jacks ready for installation**


**Photograph 14: 2015-08-15 – Some of the lifting frames installed above the Level 5 columns**


Photograph 15: 2015/07/30 – Column Level 5 being installed

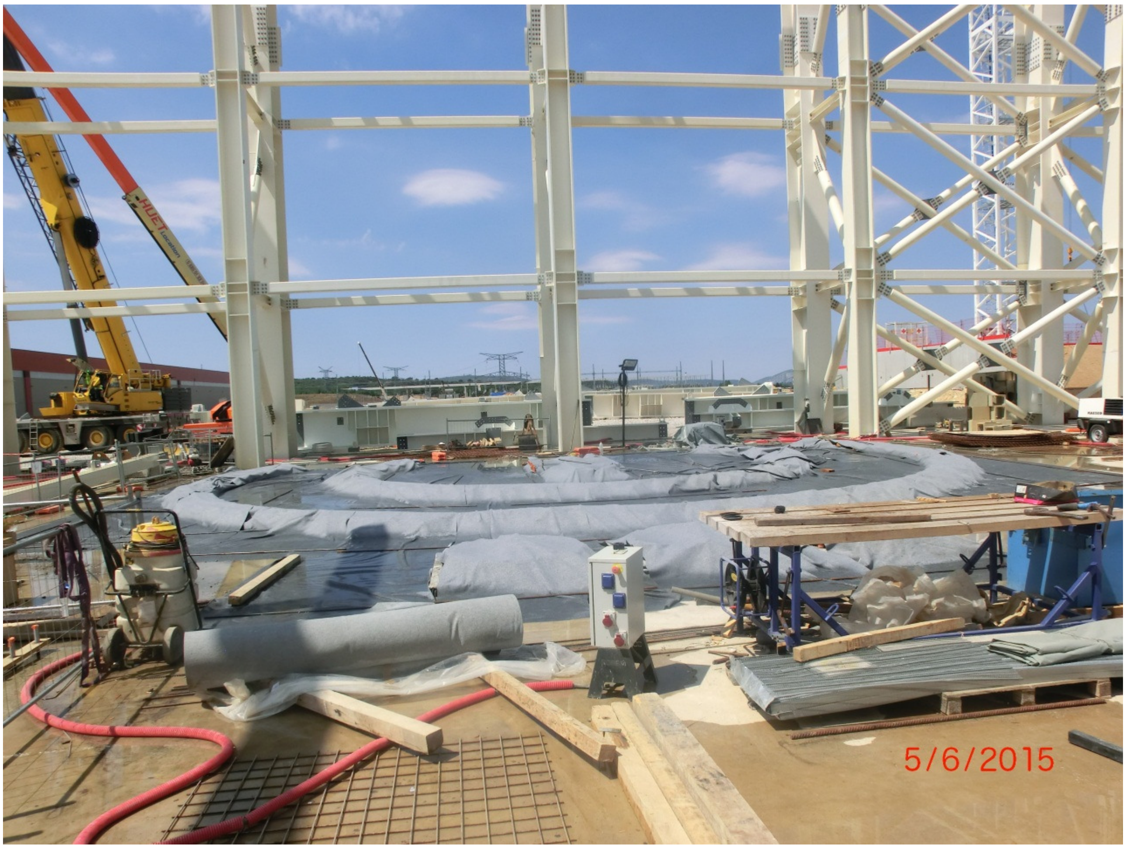

Photograph 16: 2015-07-23 – Roof steelwork and cladding progressing at ground level


**Photograph 17: 2015-07-20 – South view of the steel frame**


**Photograph 18: 2015-07-06 – South view showing roof cladding started**


**Photograph 19: 2015-07-02 – West façade column erection**


**Photograph 20: 2015-06-10 – Column erection on gridline 13.K**




**Photograph 21: 2015-06-05 – curing of the box-out following concrete pouring**


**Photograph 22: 2015-06-05 – temporary steel frame to bridge the incomplete box-outs**


**Photograph 23: 2015-05-29 – South view of the steel frame**

**Photograph 24: 2015-05-05 – West elevation columns at Level 2 and East at Level 4**


**Photograph 25: 2015-04-13 – Start of Level 4 columns on the East facade**

**Photograph 26: 2015-04-07– West elevation columns at Level 1 and East at Level 3**


Photograph 27: 2015-03-31 – Start of the roof pre-assembly at ground level


Photograph 28: 2015-02-27 – Installation of Level 1 columns on the West facade

**Photograph 29: 2015-01-13 – East façade columns at Level 2**

**Photograph 30: 2014-12-18 - First Level 2 column installed on the East façade**

Photograph 31: 2014-12-11 – Cross-bracing at Level 1 East façade


Photograph 32: 2014-12-10 – North West view showing box outs on the ground floor slab

Photograph 33: 2014-11-20 – Cross-bracing at Level 1 East façade started

Photograph 34: 2014-10-28 – Column installation at Level 1 progressing on the East façade


**Photograph 35: 2014-10-16 – Eight columns installed at Level 1 on the East façade**

**Photograph 36: 2014-10-07 – Five columns installed at Level 1 on the East façade**


**Photograph 37: 2014-10-07 – temporary storage of beam-bracing components on site**

**Photograph 38: 2014-10-02 – Four columns installed at Level 1 on the East façade**

Photograph 39: 2014-09-29 – Three columns installed at Level 1 on the East façade

Photograph 40: 2014-09-26 – Two columns installed at Level 1 on the East façade


**Photograph 41: 2014-09-25 – First column installed at Level 1 on the East façade**


**Photograph 42: 2014-09-25 – Column delivery to site**

Photograph 43: 2014-09-25 – preparation of HD bolts before column erection


Photograph 44: 2014-09-19 – Hard-stamped component site reference

Photograph 45: 2014-09-11 – Portugal factory with beam-bracing elements under fabrication

Photograph 46: 2014-09-04 – Romania factory with column elements under fabrication


Photograph 47: 2014-09-03 – Romania steel plates in storage area

Photograph 48: 2014-01-22 – Portugal factory cutting machines

# Appendix 5: BCSA Carbon Footprint Tool v3

This appendix provides the input and output of the BCSA Carbon Footprint Tool v3 used in the analysis of the data from the case study.

# BCSA carbon footprint calculation tool

***Version v3***

**Company Information**

| | | *User guide reference* |
|---|---|---|
| Company Name | ITER - Assembly Hall Steel Construction | *Section 3.1* |
| Location of production facility | | |
| Contact Address | | |
| Name of contact person | | |
| Telephone number | | |
| e-mail address | | |
| Brief description of company | | |
| Timeframe of the data collection: | | |
| Start | 07/05/2013 | *Section 3.2* |
| Finish | 30/09/2015 | |
| Date of completion | | |
| Footprint version | Simplified Footprint | *Section 2.7* |

# BCSA carbon footprint calculation tool

***Version v3***

**Company Footprint Data input**

## 1 Incoming steel intermediate products

*User guide reference Section 3.3*

| | Product | Source name and location | Source Type | Quantity (Tonnes) | Notes |
|---|---|---|---|---|---|
| A | Plate | Bulgaria | Mill | 1,712 | Plate Girders from Romania - 7% added to fabricated quantities |
| B | Plate | Spain | Mill | 1,714 | Plate Girders from Portugal - 7% added to fabricated quantities |
| C | Plate | Spain | Mill | 109 | Box Girders from Portugal - 7% added to fabricated quantities |
| D | Tubes | Italy | Mill | 643 | CHS, SHS, RHS for beam-bracings/roof - 7% added to fabricated quantities |
| E | Sections | Spain | Mill | 744 | HEA, HEB for bracings/roof/purlins/walkways-7% added to fabricated quantities |
| F | Angles and channels | Spain | Mill | 1 | Splice plates for beam bracings - 7% added to fabricated quantities |
| G | Plate | Spain | Mill | 157 | Splice plates for roof - 7% added to fabricated quantities |
| H | | | | | |
| I | | | | | |
| J | | | | | |
| K | | | | | |
| L | | | | | |
| M | | | | | |
| N | | | | | |
| O | | | | | |
| P | | | | | |

## 2 Road transport of incoming steel products

*User guide reference Section 3.4*

| | Product | From | To | Distance (km) | Average delivery (tonnes) | No. of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips (%) | If part load, proportion of load (%) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Plate | Bulgaria | 0 | 250 | 1,712 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| B | Plate | Spain | 0 | 250 | 1,714 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| C | Plate | Spain | 0 | 250 | 109 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| D | Tubes | Italy | 0 | 250 | 643 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| E | Sections | Spain | 0 | 250 | 744 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| F | Angles and channels | Spain | 0 | 250 | 1 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| G | Plate | Spain | 0 | 250 | 157 | 1 | Unknown | Unknown | Unknown | | Estimate from google maps |
| H | | | | | | | | | | | |
| I | | | | | | | | | | | |
| J | | | | | | | | | | | |
| K | | | | | | | | | | | |
| L | | | | | | | | | | | |
| M | | | | | | | | | | | |
| N | | | | | | | | | | | |
| O | | | | | | | | | | | |
| P | | | | | | | | | | | |

## 3 Additional road transport of incoming steel products

*User guide reference Section 3.4*

| | Product | Supplier | From | To | Distance (km) | Average delivery (tonnes) | Type of vehicle | Average % weight laden | Percentage of empty return trips (%) | If part load, proportion of load (%) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Plate | Bulgaria | | | | | | | | | |
| B | Plate | Spain | | | | | | | | | |
| C | Plate | Spain | | | | | | | | | |
| D | Tubes | Italy | | | | | | | | | |
| E | Sections | Spain | | | | | | | | | |
| F | Angles and channels | Spain | | | | | | | | | |
| G | Plate | Spain | | | | | | | | | |
| H | | | | | | | | | | | |
| I | | | | | | | | | | | |
| J | | | | | | | | | | | |
| K | | | | | | | | | | | |
| L | | | | | | | | | | | |
| M | | | | | | | | | | | |
| N | | | | | | | | | | | |
| O | | | | | | | | | | | |
| P | | | | | | | | | | | |

## 4 Sea and rail transport of incoming steel products

*User guide reference Section 3.4*

| | Product | Supplier | Rail distance (km) | From | To | Sea distance (km) | Sea transport | From | To | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| A | Plate | Bulgaria | | | | | | | | |
| B | Plate | Spain | | | | | | | | |
| C | Plate | Spain | | | | | | | | |
| D | Tubes | Italy | | | | | | | | |
| E | Sections | Spain | | | | | | | | |
| F | Angles and channels | Spain | | | | | | | | |
| G | Plate | Spain | | | | | | | | |
| H | | | | | | | | | | |
| I | | | | | | | | | | |
| J | | | | | | | | | | |
| K | | | | | | | | | | |
| L | | | | | | | | | | |
| M | | | | | | | | | | |
| N | | | | | | | | | | |
| O | | | | | | | | | | |
| P | | | | | | | | | | |

# BCSA carbon footprint calculation tool

***Version v3***

**Company Footprint Data input**

**5 Other manufacturing consumables** *User guide reference Section 3.5*

| Product | Source | Quantity | Units | Distance | Number of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (km) | | | | (%) | (%) | |

**6 Energy consumption (Production)** *User guide reference Section 3.6*

| Energy | Supplier | Consumption | Units | Production or total | Proportion of energy used in production | Notes |
|---|---|---|---|---|---|---|
| Electricity | Unknown | 12,104,141 | kWh | Production | | Estimated at 2.55kWh/kg of fabricated steel |
| Gas | | | kWh | | | |

**7 Fuel delivery (Production)** *User guide reference Section 3.6*

| Energy | Supplier | Distance | Number of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|
| | | (km) | | | | (%) | (%) | |
| Electricity | Unknown | | | | | | | |
| Gas | | | | | | | | |

**8 Production waste** *User guide reference Section 3.7*

| Waste | Waste contractor and location | Amount | Units | Recycled | Energy form waste | Composting | Landfill | Unknown | Total | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (%) | (%) | (%) | (%) | (%) | (%) | |
| Steel - offcuts | Unknown | 332.3 | tonnes | 100 | | | | | 100 | 7% of the finished product |

| Waste | Transport distance | Number of collections | Type of load | If part load, proportion of load | Notes |
|---|---|---|---|---|---|
| | (km) | | | (%) | |
| Steel - offcuts | 250 | 34 | Full load | | 10 tonne full load truck |

**9 Finished product transport** *User guide reference Section 3.8*

| Finished product | Quantity | | Quantity | Average distance | Average load | No. of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | (tonnes) | | (tonnes) | (km) | (tonnes) | | | | | |
| Fabricated product | | Own haulage: | | | | | | | | |
| | | | (tonnes) | (km) | (tonnes) | | | | | |
| | | Haulage by others: | 0 | | | | | | | |

**10 Steel stock adjustment** *User guide reference Section 3.8*

| Steel in stock at start of period | Steel in stock at end of period | Change in stock | Steel purchased | Finished product plus scrap steel | Change in stock | Notes |
|---|---|---|---|---|---|---|
| (tonnes) | (tonnes) | (tonnes) | (tonnes) | (tonnes) | (tonnes) | |

# BCSA carbon footprint calculation tool

***Version v3***

**Company Footprint Data input**

**11 Energy consumption (Office)** *User guide reference Section 3.9*

| Energy | Supplier | Consumption | Units | Office consumption data derived from Section 6: Energy | Consumption | Units | Notes |
|---|---|---|---|---|---|---|---|
| Electricity | | | kWh | | | | |
| Gas | | | kWh | | | | |

**12 Fuel delivery (Office)** *User guide reference Section 3.9*

| Energy | Supplier | Distance (km) | Number of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|
| Electricity | | | | | | | | |
| Gas | | | | | | | | |

**13 Office consumables** *User guide reference Section 3.10*

| Product | Source | Quantity | Units | Distance | Number of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|---|---|

**14 Office waste** *User guide reference Section 3.11*

| Waste | Waste contractor and location | Amount | Units | Recycled (%) | Energy form waste (%) | Composting (%) | Landfill (%) | Unknown (%) | Total (%) | Notes |
|---|---|---|---|---|---|---|---|---|---|---|

| Waste | Transport distance (km) | Number of collections | Type of load | If part load, proportion of load (%) | Notes |
|---|---|---|---|---|---|

**15 Employee business travel** *User guide reference Section 3.12*

| Air travel | Total distance (pkm) | Public transport | Total distance (pkm) | Petrol cars | Total distance (km) | Diesel cars | Total distance (km) | Notes |
|---|---|---|---|---|---|---|---|---|
| Domestic | | Bus | | Small (<1.4 litre) | | Small (<1.7 litre) | | |
| Short haul international | | National rail | | Medium (1.4-2.0 litre) | | Medium (1.7-2.0 litre) | | |
| Long haul international | | Light rail | | Large (>2.0 litres) | | Large (>2.0 litres) | | |
| | | Underground | | Average | | Average | | |

| LPG cars | Total distance (km) | Petrol hybrid cars | Total distance (km) | Car (unknown fuel) | Total distance (km) | Motorcycles | Total distance (km) | Notes |
|---|---|---|---|---|---|---|---|---|
| Medium | | Medium | | Average car | | Small (<125cc) | | |
| Large | | Large | | | | Medium (125-500cc) | | |
| Average | | Average | | | | Large (>500cc) | | |
| | | | | | | Average | | |

# BCSA carbon footprint calculation tool

***Version v3***

**Company Footprint Data input**

**16 Erection data** *User guide reference Section 3.13*

| | Quantity | Erector commuting | | Units | Snagger commuting | | Units | Notes |
|---|---|---|---|---|---|---|---|---|
| | (tonnes) | | | | | | | |
| Hot-rolled erection | 4,747 | Distance | | km | Distance | | km | |
| Cold-rolled erection | 0 | Petrol | | litres | Petrol | | litres | |
| Erection data | Supply data | Diesel | | litres | Diesel | | litres | |

**Erection Plant**

| Crane | | | MEWPs | | | Forklifts | | | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Weeks on site | 107 | wks | Weeks on site | 187 | wks | Weeks on site | 72 | wks | Crane =107 (54+35+18) |
| Diesel | | litres | Diesel | | litres | Diesel | | litres | MEWP = 187 (54+48+27+18+18+14+4+4) |
| Proportion | Unknown | % | Proportion | Unknown | % | Proportion | Unknown | % | Forklift = 72 (18x3 + 9x2) |

**Erection split between hot and cold-rolled**

| | | | Notes |
|---|---|---|---|
| Hot-rolled erection | 100% | If split is unknown enter 50% for hot-rolled | |
| Cold-rolled erection | 0% | | |

**17 Employee commuting** *User guide reference Section 3.14*

| Number of employees | Public transport | Total distance | Petrol cars | Total distance | Diesel cars | Total distance | Notes |
|---|---|---|---|---|---|---|---|
| | | (pkm) | | (km) | | (km) | |
| | Bus | | Small (<1.4 litre) | | Small (<1.7 litre) | | |
| | National rail | | Medium (1.4-2.0 litre) | | Medium (1.7-2.0 litre) | | |
| | Light rail | | Large (>2.0 litres) | | Large (>2.0 litres) | | |
| | Underground | | Average | | Average | | |

| LPG cars | Total distance | Petrol hybrid cars | Total distance | Car (unknown fuel) | Total distance | Motorcycles | Total distance | Notes |
|---|---|---|---|---|---|---|---|---|
| | (km) | | (km) | | (km) | | (km) | |
| Medium | | Medium | | Average car | | Small (<125cc) | | |
| Large | | Large | | | | Medium (125-500cc) | | |
| Average | | Average | | | | Large (>500cc) | | |
| | | | | | | Average | | |

**18 Purchased carbon offsets** *User guide reference Section 3.15*

| LPG cars | Total distance | Petrol hybrid cars | Total distance | Car (unknown fuel) | Total distance | Motorcycles | Total distance | Notes |
|---|---|---|---|---|---|---|---|---|
| | (km) | | (km) | | (km) | | (km) | |

**19 Green tariff electricity** *User guide reference Section 3.16*

| | Supplier | Name of tariff | Quantity | Kyoto compliant | OFGEM compliant | Documentation | Notes |
|---|---|---|---|---|---|---|---|
| | | | (tCO2e) | Y/N | Y/N | | |
| Green tariff | | | | | | | |

**20 Water consumption** *User guide reference Section 3.17*

| Water | Water company | Water data | Production consumption | Office consumption | Total consumption | Proportion used in production | Proportion used in office | Total consumption | Notes |
|---|---|---|---|---|---|---|---|---|---|
| | | | litres | litres | litres | | | litres | |
| Water supply | | | | | | | | | |
| Water treatment | | | | | | | | | |

**21 End**

# BCSA carbon footprint calculation tool

***Version v3***

## Company carbon footprint results

| | |
|---|---|
| Carbon Footprint calculation results for: | **ITER - Assembly Hall Steel Construction,** |
| Footprint calculation date: | **27/05/2016** |
| Accounting period for footprint calculation: | **07/05/2013 to 30/09/2015** |
| Type of footprint: | **Simplified Footprint** |
| Total hot-rolled production during accounting period: | **Tonnes** |

**Company footprint - Breakdown by Green House Gas Protocol Scope** — See Pie chart 1

| Footprint | Total (kgCO2) | Total per tonne of finished product (kgCO2/tonne) | Percentage Contribution (%) |
|---|---|---|---|
| **GHGP Scope 1** | 133,595 | #DIV/0! | 1% |
| **GHGP Scope 2** | 6,599,420 | #DIV/0! | 53% |
| **GHGP Scope 3** | 5,677,849 | #DIV/0! | 46% |
| **Total gross emissions** | **12,410,863** | **#DIV/0!** | **100%** |
| **Carbon offsets** | 0 | #DIV/0! | |
| **Green tariff** | 0 | #DIV/0! | |
| **Total net emissions** | **12,410,863** | **#DIV/0!** | |

**Breakdown for GHGP Scope 1** — See Pie chart 2

| Footprint | Total (kgCO2) | Total per tonne of finished product (kgCO2/tonne) | Percentage Contribution (%) |
|---|---|---|---|
| **Production energy consumption** | 0 | #DIV/0! | 0% |
| **Finished product - Transport** | 0 | #DIV/0! | 0% |
| **Office energy consumption** | 0 | #DIV/0! | 0% |
| **Hot-rolled erection** | 133,595 | #DIV/0! | 100% |
| **Cold-rolled erection** | 0 | #DIV/0! | 0% |
| **Hot-rolled erection - transport** | 0 | #DIV/0! | 0% |
| **Cold-rolled erection - transport** | 0 | #DIV/0! | 0% |
| **Employee business travel** | 0 | #DIV/0! | 0% |
| **Total** | **133,595** | **#DIV/0!** | **100%** |

**Breakdown for GHCP Scope 3** — See Pie chart 3

| Footprint | Total (kgCO2) | Total per tonne of finished product (kgCO2/tonne) | Percentage Contribution (%) |
|---|---|---|---|
| **Incoming intermediate hot-rolled steel products - Production** | 4,760,515 | #DIV/0! | 84% |
| **Other manufacturing consumables - Production** | 0 | #DIV/0! | 0% |
| **Incoming intermediate hot-rolled steel products - Transport** | 3,444 | #DIV/0! | 0% |
| **Other manufacturing consumables - Transport** | 0 | #DIV/0! | 0% |
| **Production energy consumption (excluding electricity) - transport** | 0 | #DIV/0! | 0% |
| **Production energy consumption (excluding electricity) - Production** | 0 | #DIV/0! | 0% |
| **Production electricity - Production** | 869,683 | #DIV/0! | 15% |
| **Production waste - Production** | 0 | #DIV/0! | 0% |
| **Production waste - Transport** | 18,874 | #DIV/0! | 0% |
| **Finished product - Transport** | 0 | #DIV/0! | 0% |
| **Office energy consumption (excl. electricity) - Transport** | 0 | #DIV/0! | 0% |
| **Office energy consumption (excl. electricity) - Production** | 0 | #DIV/0! | 0% |
| **Office electricity - Production** | 0 | #DIV/0! | 0% |
| **Office consumables - Total** | 0 | #DIV/0! | 0% |
| **Office waste - Total** | 0 | #DIV/0! | 0% |
| **Employee business travel** | 0 | #DIV/0! | 0% |
| **Hot-rolled erection** | 25,334 | #DIV/0! | 0% |
| **Cold-rolled erection** | 0 | #DIV/0! | 0% |
| **Hot-rolled erection - transport** | 0 | #DIV/0! | 0% |
| **Cold-rolled erection - transport** | 0 | #DIV/0! | 0% |
| **Water consumption** | 0 | #DIV/0! | 0% |
| **Total** | **5,677,849** | **#DIV/0!** | **100%** |

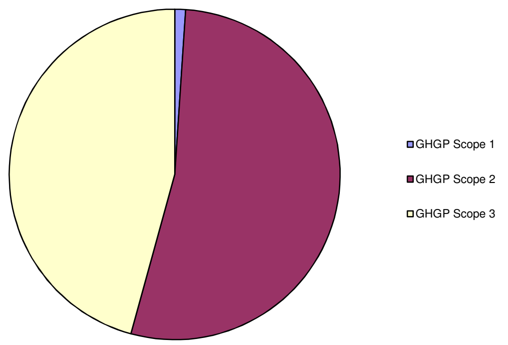
**Employee commuting**

| Impact | Total (kgCO2) | Total per employee (kgCO2) |
|---|---|---|
| **Transport impacts** | 0 | #DIV/0! |

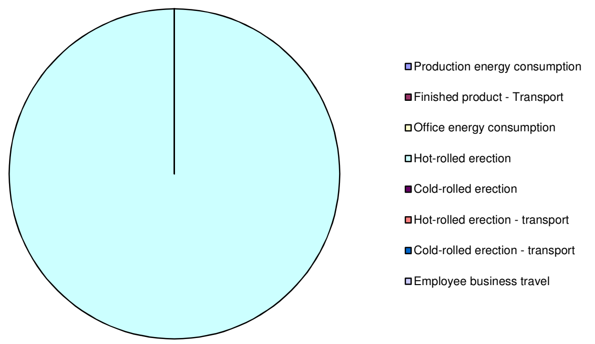
| Hot-rolled products - Breakdown of impacts by activity | | | | | See Pie chart 4 |
|---|---|---|---|---|---|
| **Impact** | **Production impacts (kgCO2)** | **Transport impacts (kgCO2)** | **Total (production and transport) (kgCO2)** | **Total per tonne of finished product (kgCO2/tonne)** | **Percentage Contribution (%)** |
| **Incoming intermediate hot-rolled steel products** | 4,760,515 | 3,444 | 4,763,959 | #DIV/0! | 38% |
| **Other manufacturing consumables** | 0 | 0 | 0 | #DIV/0! | 0% |
| **Production energy consumption (excluding electricity) S1** | 0 | 0 | 0 | #DIV/0! | 0% |
| **Production energy consumption (excluding electricity) S3** | 0 | N/A | 0 | #DIV/0! | 0% |
| **Production electricity S2** | 6,599,420 | N/A | 6,599,420 | #DIV/0! | 53% |
| **Production electricity S3** | 869,683 | N/A | 869,683 | #DIV/0! | 7% |
| **Production waste** | 0 | 18,874 | 18,874 | #DIV/0! | 0% |
| **Finished product S1** | N/A | 0 | 0 | #DIV/0! | 0% |
| **Finished product S3** | N/A | 0 | 0 | #DIV/0! | 0% |
| **Office energy consumption (excl. electricity)** | 0 | 0 | 0 | #DIV/0! | 0% |
| **Office energy consumption S1 (excl. electricity) S3** | 0 | N/A | 0 | #DIV/0! | 0% |
| **Office electricity S2** | 0 | N/A | 0 | #DIV/0! | 0% |
| **Office electricity S3** | 0 | N/A | 0 | #DIV/0! | 0% |
| **Office consumables** | 0 | 0 | 0 | #DIV/0! | 0% |
| **Office waste** | 0 | 0 | 0 | #DIV/0! | 0% |
| **Hot-rolled erection S1** | 133,595 | 0 | 133,595 | #DIV/0! | 1% |
| **Hot-rolled erection S3** | 25,334 | 0 | 25,334 | #DIV/0! | 0% |
| **Employee business travel S1** | N/A | 0 | 0 | #DIV/0! | 0% |
| **Employee business travel S3** | N/A | 0 | 0 | #DIV/0! | 0% |
| **Water consumption** | 0 | N/A | 0 | #DIV/0! | 0% |
| **Total** | **12,388,546** | **22,318** | **12,410,863** | **#DIV/0!** | **100%** |

| Company footprint (GHGP Scopes 1 and 2) | | |
|---|---|---|
| **Footprint** | **Total (kgCO2)** | **Total per tonne of finished product (kgCO2/tonne)** |
| **Company production** | 6,733,014 | #DIV/0! |
| **Company business operations** | 0 | #DIV/0! |
| **Total company footprint** | 6,733,014 | #DIV/0! |

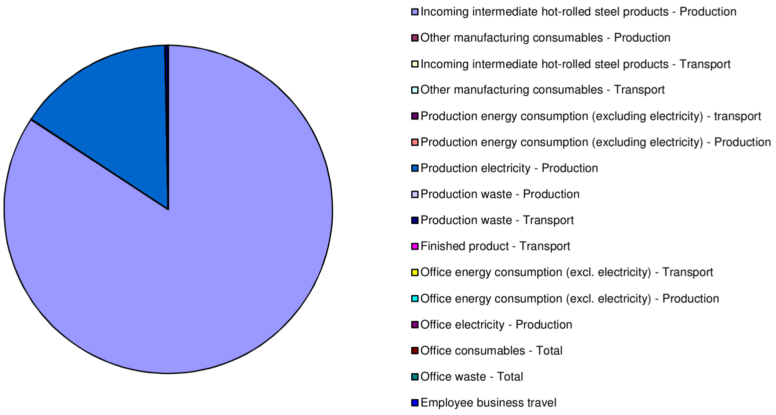
**Pie chart 1: Company footprint - Breakdown by Green House Gas Protocol Scope**



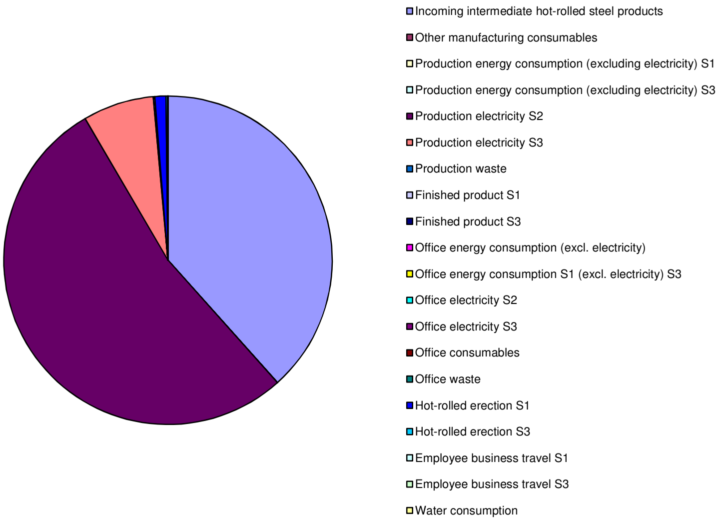

**Pie chart 2: Breakdown for GHGP Scope 1**




**Pie chart 3: Breakdown for GHGP Scope 3**




**Pie chart 4: Hot-rolled products - Breakdown of impacts by activity**



# BCSA carbon footprint calculation tool

***Version v3***

**Project Footprint Data input**

| | |
|---|---|
| Project name | Assembly Hall |
| Project location | France |
| Project client | ITER |
| Gross internal floor area ($m^2$): | 5,380 |

**1 Hot-rolled products**

*User guide reference Section xxx*

| | Product | Supplier | Quantity | Distance | Average load | No. of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | (%) | (%) | |
| A | Plate | Romania | 1,600 | 2,300 | 20 | 83 | Articulated | 60% | 100% | | Plate Girders from Romania |
| B | Plate | Portugal | 1,602 | 1,500 | 20 | 83 | Articulated | 60% | 100% | | Plate Girders from Portugal |
| C | Plate | Portugal | 102 | 1,500 | 20 | 6 | Articulated | 60% | 100% | | Box Girders from Portugal |
| D | Tubes | Portugal | 509 | 1,500 | 20 | 27 | Articulated | 60% | 100% | | CHS, SHS and RHS for beam-bracings |
| E | Sections | Portugal | 262 | 1,500 | 20 | 14 | Articulated | 60% | 100% | | HEA and HEB for beam bracings |
| F | Plate | Portugal | 82 | 1,500 | 20 | 5 | Articulated | 60% | 100% | | Splice plates for beam bracings |
| G | Tubes | Portugal | 92 | 1,500 | 20 | 5 | Articulated | 60% | 100% | | CHS, SHS and RHS for roof |
| H | Sections | Portugal | 247 | 1,500 | 20 | 13 | Articulated | 60% | 100% | | HEA and HEB for roof |
| I | Plate | Portugal | 64 | 1,500 | 20 | 4 | Articulated | 60% | 100% | | Splice plates for roof |
| J | Sections | Portugal | 126 | 1,500 | 20 | 7 | Articulated | 60% | 100% | | HEA, HEB and IPE for purlins |
| K | Sections | Portugal | 59 | 1,500 | 20 | 4 | Articulated | 60% | 100% | | HEA and IPE for walkways |
| L | Angles and channels | Portugal | 1 | 1,500 | 20 | 1 | Articulated | 60% | 100% | | L (RSA cleats) for purlins |
| | | **Total** | 4746.723 | | | | | | | | |

**2 Cold-rolled steel products - purlins, rails, channels, etc**

| | Product | Supplier | Quantity | Distance | Average load | No. of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (Tonnes) | | | | | | | | |
| A | | | | | | | | | | | |
| B | | | | | | | | | | | |
| C | | | | | | | | | | | |
| D | | | | | | | | | | | |
| E | | | | | | | | | | | |
| | | **Total** | 0 | | | | | | | | |

**3 Cold-rolled steel products - decking**

| | Product | Supplier | Quantity | Distance | Average load | No. of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (Tonnes) | | | | | | | | |
| A | | | | | | | | | | | |
| B | | | | | | | | | | | |
| C | | | | | | | | | | | |
| | | **Total** | 0 | | | | | | | | |

**4 Pre-cast concrete products**

| | Product | Supplier | Quantity | Distance | Average load | No. of deliveries | Type of vehicle | Average % weight laden | Percentage of empty return trips | If part load, proportion of load | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | | | | |
| B | | | | | | | | | | | |
| C | | | | | | | | | | | |
| | | **Total** | 0 | | | | | | | | |

**5 End**

# BCSA carbon footprint calculation tool

***Version v3***

## Project carbon footprint results

| | | | |
|---|---|---|---|
| Project name: | **Assembly Hall** | Carbon Footprint calculation results for: | **ITER - Assembly Hall Steel Construction,** |
| Location: | **France** | Footprint calculation date: | **27/05/2016** |
| Client: | **ITER** | Accounting period for company footprint calculation: | **07/05/2013 to 30/09/2015** |
| Gross internal floor area ($m^2$): | **5,380** | | |

**Project Results - Breakdown by product** — See Pie chart 1

| Impact | Quantity (Tonnes) | Production impacts [1] (kgCO2) | Transport impacts [2] (kgCO2) | Total (production and transport) (kgCO2) | Total per $m^2$ ($kgCO2/m^2$) | Percentage Contribution (%) |
|---|---|---|---|---|---|---|
| **Hot-rolled products** | 4,747 | 11,598,937 | 899,150 | 12,498,087 | 2,323 | #DIV/0! |
| **Cold-rolled products** | 0 | #DIV/0! | 0 | #DIV/0! | #DIV/0! | #DIV/0! |
| **Decking products** | 0 | 0 | 0 | 0 | 0 | #DIV/0! |
| **Concrete products** | 0 | 0 | 0 | 0 | 0 | #DIV/0! |
| | **4,747** | **#DIV/0!** | **899,150** | **#DIV/0!** | **#DIV/0!** | **#DIV/0!** |

**Hot-rolled products**

| Type | Supplier | Quantity (Tonnes) | Production impacts [1] (kgCO2) | Transport impacts [2] (kgCO2) | Total (production and transport) (kgCO2) | Percentage Contribution (%) |
|---|---|---|---|---|---|---|
| Plate | Romania | 1,600 | 3,961,716 | 386,246 | 4,347,962 | 35% |
| Plate | Portugal | 1,602 | 3,967,196 | 251,900 | 4,219,096 | 34% |
| Plate | Portugal | 102 | 251,733 | 18,210 | 269,943 | 2% |
| Tubes | Portugal | 509 | 1,234,320 | 81,943 | 1,316,263 | 11% |
| Sections | Portugal | 262 | 602,703 | 42,489 | 645,192 | 5% |
| Plate | Portugal | 82 | 203,832 | 15,175 | 219,007 | 2% |
| Tubes | Portugal | 92 | 224,350 | 15,175 | 239,525 | 2% |
| Sections | Portugal | 247 | 567,760 | 39,454 | 607,214 | 5% |
| Plate | Portugal | 64 | 158,828 | 12,140 | 170,968 | 1% |
| Sections | Portugal | 126 | 289,379 | 21,245 | 310,623 | 2% |
| Sections | Portugal | 59 | 135,916 | 12,140 | 148,056 | 1% |
| Angles and channels | Portugal | 1 | 1,203 | 3,035 | 4,238 | 0% |
| | **Total** | **4,747** | **11,598,937** | **899,150** | **12,498,087** | **100%** |

**Cold-rolled products**

| Type | Supplier | Quantity (Tonnes) | Production impacts [1] (kgCO2) | Transport impacts [2] (kgCO2) | Total (production and transport) (kgCO2) | Percentage Contribution (%) |
|---|---|---|---|---|---|---|
| --- | --- | --- | #DIV/0! | --- | #DIV/0! | #DIV/0! |
| --- | --- | --- | #DIV/0! | --- | #DIV/0! | #DIV/0! |
| --- | --- | --- | #DIV/0! | --- | #DIV/0! | #DIV/0! |
| --- | --- | --- | #DIV/0! | --- | #DIV/0! | #DIV/0! |
| --- | --- | --- | #DIV/0! | --- | #DIV/0! | #DIV/0! |
| | **Total** | **0** | **#DIV/0!** | **0** | **#DIV/0!** | **#DIV/0!** |

**Decking products**

| Type | Supplier | Quantity (Tonnes) | Production impacts [1] (kgCO2) | Transport impacts [2] (kgCO2) | Total (production and transport) (kgCO2) | Percentage Contribution (%) |
|---|---|---|---|---|---|---|
| --- | --- | --- | --- | --- | --- | 0% |
| --- | --- | --- | --- | --- | --- | 0% |
| --- | --- | --- | --- | --- | --- | 0% |
| | **Total** | **0** | **0** | **0** | **0** | **0%** |

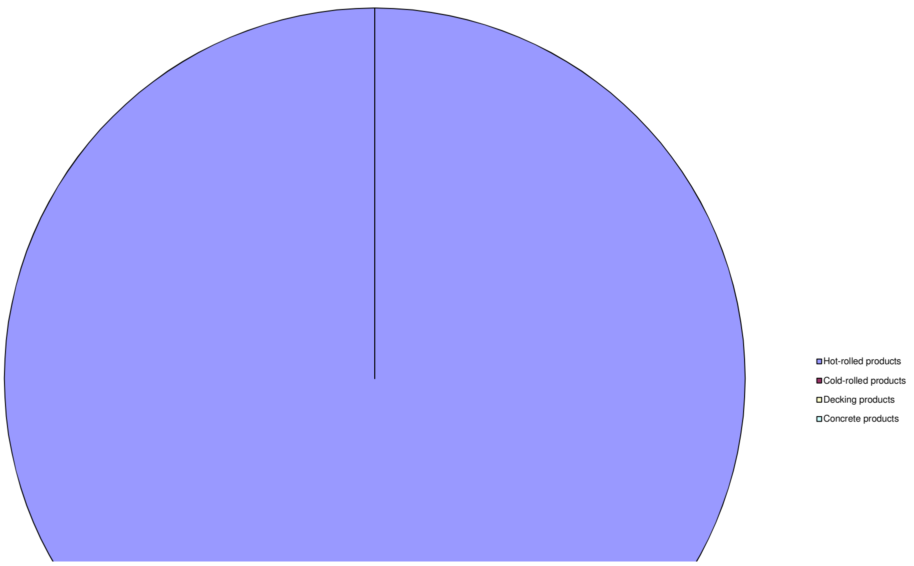
**Concrete products**

| Type | Supplier | Quantity (Tonnes) | Production impacts (kgCO2) | Transport impacts [2] (kgCO2) | Total (production and transport) (kgCO2) | Percentage Contribution (%) |
|---|---|---|---|---|---|---|
| --- | --- | --- | --- | --- | --- | 0% |
| --- | --- | --- | --- | --- | --- | 0% |
| --- | --- | --- | --- | --- | --- | 0% |
| | **Total** | **0** | **0** | **0** | **0** | **0%** |

Notes:

1. Production impacts include transport of materials to the manufacturing facility and erection impacts.
2. Transport from the manufacturing facility to the construction site.

**Pie chart 1: Project Results - Breakdown by product**



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