

**TATA STEEL**



**EN 15804 verified EPD programme**  
General programme instructions



V1 January 2017

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## 1 Introduction

Tata Steel's EPD (Environmental Product Declaration) programme is intended to support Tata Steel and partner organisations communicate the environmental credentials of their products in a standardised manner.

With a strong focus on sustainability, Tata Steel have become the first steel manufacturer to develop and operate an EPD programme. The programme covers the development of Type III environmental declarations in accordance with the requirements of EN 15804 (Sustainability of construction works – Environmental Product Declarations – Core rules for the product category of construction products) and ISO 14025 (Environmental labels and declarations – Type III environmental declarations – Principles and procedures). Tata Steel UK is the programme operator and the declarations shall be managed according to these programme instructions. Tata Steel UK Limited will also be responsible for periodically reviewing this programme, and revising procedures and documents when necessary.

## 2 Scope

The scope of the EPD or EPD tool produced through this programme is limited primarily to construction products marketed by Tata Steel or its entities, and supply chain partners working directly with Tata Steel. EPDs may also be produced for construction products marketed by other companies operating in the steel supply chain. There are no restrictions relating to the regions in which these products are manufactured or sold. An EPD tool is regarded as the Life Cycle Assessment (LCA) methodology used to generate one or more EPD, which can be verified in the same way as an EPD.

The life cycle stages considered will depend upon the product for which the EPD is being prepared, and its application. In some cases there are multiple applications for a particular product and in these situations only 'manufacture' and 'end-of-life' might be considered relevant for the EPD, as aspects of 'fabrication' and 'use' could vary between applications. For some products, a whole life approach will be adopted which incorporates the product stage (modules A1 to A3 in EN 15804), the construction stage (A4 and A5), some aspects of the use stage (B1 to B7), and the end of life stage (C1 to C4). Any loads or credits arising from the end of life stage such as re-use or recycling of the products or their packaging, or energy recovery from products or packaging, will be incorporated in Module D. For other products, a cradle to gate approach will be considered which incorporates just the product stage (A1 to A3), with the option of including some aspects of the use and end of life stages as well (often referred to as cradle to gate with options).

The EPD may cover one product or one similar product type, manufactured at a single site or at a number of separate sites. Possible EPD types are summarised in Table 1.

**Table 1. EPD types covered by the Tata Steel programme**

<b>Manufacturing location</b>	<b>Single product</b>	<b>Average of multiple products</b>
Manufactured at single site	✓	✓
Manufactured at multiple sites	✓	✓

### 3 Programme objectives

The objective of Tata Steel's programme is to promote the use of products with improved environmental performance, by disseminating accurate and verifiable information to customers relating to the environmental impacts of these products over their life cycle.

The focus of the programme lies primarily in supporting Tata Steel, its entities, and supply chain partners working directly with Tata Steel, in the development of their EPDs and the marketing of their construction products.

### 4 Programme operator responsibilities

The programme operator is Tata Steel UK

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As programme operator, Tata Steel UK is responsible for:

- The preparation, maintenance and public communication of the general programme instructions (this document)
- The development, maintenance and public communication of the programme's Product Category Rules (PCR)
- The review and approval of the PCR in accordance with the requirements of ISO 14025 and EN 15804
- The development, maintenance and communication of procedures for the verification of EPD and EPD tools
- The management of the competence, confidentiality, independence and impartiality of the verifiers
- Ensuring the involvement of interested parties in the programme
- The publication and public listing of the EPDs produced, and the public communication of this document and the PCR document via Tata Steel's construction website **[www.tatasteelconstruction.com](http://www.tatasteelconstruction.com)**

## 5 Tata Steel's EPD Advisory Committee

The EPD Advisory Committee is made up of the members of Tata Steel's Construction and Infrastructure Sustainability Working Group (CISWG), which represents most of the company's manufacturing units, and representatives from Group Health, Safety and Environment who provide technical LCA expertise and support.

The Advisory Committee is responsible for overseeing the development of the programme and the PCR, generating the product EPD and appointing an external verifier. Any business units or market sectors that are not represented by these bodies, and for whom an EPD is required, will be invited to join the Committee as required.

This Committee also ensures the involvement of interested parties in the development and maintenance of the programme.

## 6 Involvement of interested parties

Interested parties are Tata Steel, its entities, supply chain partners working directly with Tata Steel, their associated market sector groups, and those related to the supply of these products. Other interested parties are LCA practitioners and the end users of the EPD as described in section 7.

All interested parties are able to access the publicly available texts (General Programme Instructions and Product Category Rules) from Tata Steel's construction website **[www.tatasteelconstruction.com](http://www.tatasteelconstruction.com)**, and submit comments (in accordance with ISO 14025) to **[sustainable.construction@tatasteel.com](mailto:sustainable.construction@tatasteel.com)**. Any comments will receive a considered response within one month of their submission.

In addition, a consultation process is performed as part of the ongoing development of these publicly available documents, the draft programme instructions and PCR being sent for comment, to a network of external experts who have experience with using and/or producing EPD within their own organisations. Those comments, together with the associated responses, are disseminated to all those consulted, prior to the final documents being made available.

## 7 Intended audience

EPDs registered in the programme are primarily for business to business communication. It is envisaged that the end user of the EPDs could be an individual developer specifying construction products, a customer business, a consultant for the construction industry, a government body, or a federation representing a number of customers for example.

## **8 Data and documentation management**

The procedure for the management of the data and documentation used is based on section 5 of ISO 14044 (Environmental Management – Life Cycle Assessment – requirements and guidelines).

### **8.1 Data quality and EPD validity**

Life Cycle Inventory (LCI) data specific to Tata Steel's products and processes are collected by Tata Steel and will be used where ever possible. Other sources of data are World Steel Association (worldsteel), average industry data, and data from proprietary databases. All data used when developing an EPD or EPD tool will be less than five years old. Further details regarding data quality can be found in section 6.3 of 'Tata Steel's EN 15804 Verified EPD Programme, Product Category Rules Part 1' document.

An EPD generated via this programme will nominally be valid for five years from the date of issue. However, any change in production processes, closure or disposal of existing sites, or opening of new sites that is likely to affect the LCI data, will require the EPD or the EPD tool to be reviewed and possibly updated, even within this five year period. High level checks will be carried out annually by Tata Steel's LCA practitioners to highlight any changes that might invalidate the EPD, and the EPD owner and verifier will then be informed of any potential issues.

### **8.2 Data confidentiality**

The LCI data collected and used as part of the generation of an EPD via this programme is confidential to Tata Steel. However, it will be made available to the third party verifier of the EPD or the EPD tool, who in turn shall keep these data confidential.

Life Cycle Impact Assessment (LCIA) data and additional information is published in the EPD according to the selected parameters listed in Tata Steel's PCR documents (see next page) in accordance with the requirements of EN 15804.

## 9 Procedure for definition of product categories

Clause 6.6 of ISO 14025 states that the programme operator should ensure a transparent definition of product categories. For construction products, the product category is as defined in Annex IV of the European Construction Products Regulation (305/2011) and EN 15804 is used to provide the core product category rules for all construction products and services.

### 9.1 Procedure for development of the PCR

The Product Category Rules for the LCA of Tata Steel's products can be found in the document 'Tata Steel's EN 15804 Verified EPD Programme, Product Category Rules Part 1', available on Tata Steel's website [www.tatasteelconstruction.com](http://www.tatasteelconstruction.com).

These PCR have been developed by the LCA practitioners in Tata Steel's EPD Advisory Committee in consultation with external experts, and are based upon section 6 of EN 15804. The draft PCR were also reviewed through an open consultation process as described in clause 6.5 of ISO 14025. Specific details of this consultation process are explained in section 6 of this document.

The PCR will contain:

- The intended application of the product.
- The product category definition and description.
- The goal and scope definition for the LCA of the product.
- Details of the life cycle stages (information modules) that are included.
- The procedure for inventory analysis, including the calculation rules and allocation.
- The indicators for reporting of the LCA data.
- The method by which the indicators are collated and reported in the EPD.
- The instructions for producing additional environmental information.
- The instructions on the content and format of the EPD.
- The period of validity.

In addition to the PCR Part 1 document, the rules for specific product groups (such as structural steels, or architectural panels) are set out in the relevant PCR Part 2 document, which also contains the EPD template for that product group.

### 9.2 Procedure for review of the PCR

The PCR will be periodically reviewed by the experts in the EPD Advisory Committee, to ensure they remain aligned with both the latest European and International standards, and the methodologies of organisations such as EUROFER and worldsteel. The PCR are valid for five years from the date of publication and will be reviewed every five years or more frequently to reflect any significant changes in standards (such as EN 15804 or ISO 14025), or the introduction of any new standards. These reviews will include a consultation with interested parties as described by the process in section 6 of this document.

## 10 Procedure for verification of EPD

The EPD Advisory Committee will appoint a suitable independent third party to verify both the EPD and the underlying LCA for the product under consideration. Independent third party means that the verifier is not an employee of Tata Steel or any partner of Tata Steel, and acts freely and under no influence from Tata Steel or its partners, or any of their employees. The competence of the verifier will be assured by their:

- Knowledge of the steel sector, steel products, and related environmental aspects.
- Process and product knowledge of the product category.
- Expertise in LCA and methodology for LCA work.
- Knowledge of the relevant standards in the field of environmental labelling and declarations, and Life Cycle Assessment, in particular EN 15804.
- Knowledge of the regulatory framework in which requirements for the Type III environmental declarations programme have been prepared.
- Knowledge of the Type III environmental declarations programme.

The procedure shall be transparent and the verifier will supply documentary evidence of the verification, while adhering to their obligations for data confidentiality. This documentary evidence will be available to any person upon request.

The verification procedure will confirm whether the information given in the EPD accurately reflects the information in the documents on which the declaration is based. This procedure will also confirm whether the information is valid and scientifically sound, and basically confirms that:

- The EPD and/or EPD tool follows the PCR.
- The EPD conforms to the general programme instructions for Type III environmental declarations.
- The LCA data and calculations are of good quality and are plausible, accurate and complete.
- The environmental impacts are relevant and complete.
- The additional environmental and supporting information is accurate and of good quality.

## **11 Review of EPD**

EPDs are normally valid for a period of 5 years from the date of issue. However, an EPD will be reviewed within the 5 year validity period if changes occur that could impact the results of the LCA. One example is a significant change in the process which could be the introduction of a new production route (steel intermediate product manufactured at site A instead of at site B), or a different method of manufacture (steel intermediate product manufacture using EAF technology instead of a BOF vessel). Another example could be the effect on the LCA of World Steel Association data updates following a peer review, which can take place some time after the initial data is released.

## **12 Procedure for handling disputes and complaints**

This programme is only intended for generating EPDs for Tata Steel products, and those of its entities, and supply chain partners working directly with Tata Steel. EPDs may also be produced for construction products marketed by other companies operating in the steel supply chain.

Should a dispute or complaint arise regarding any aspect of the EPD programme, it will be considered by Tata Steel's EPD advisory committee and settled within that forum.

## **13 Funding sources**

The funding for the development and maintenance of this EPD programme is provided by Tata Steel, its entities, and partners, for whose products the EPDs are generated.

## **14 Periodic review of general programme instructions**

The EPD Advisory Committee will review these general programme instructions at least every five years and within one year of any updates to the relevant EN and ISO Standards.

## 15 References

1. EN 15804:2012+A1:2013, Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
2. ISO 14044:2006, Environmental management - Life cycle assessment - Requirements and guidelines
3. ISO 14025:2010, Environmental labels and declarations - Type III environmental declarations - Principles and procedures
4. ISO 14040:2006, Environmental management - Life cycle assessment - Principles and framework
5. Tata Steel's EN 15804 Verified EPD programme, Product Category Rules Part 1, V1 January 2017
6. European Construction Products Regulation, Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC





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Language English 0717