EPD
INTERNATIONAL EPD SYSTEM

# BASIC IRON OR STEEL PRODUCTS & SPECIAL STEELS, EXCEPT CONSTRUCTION STEEL PRODUCTS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 4112 AND 412

PCR 2015:03
VERSION 3.0.1

VALID UNTIL 2029-07-14

# TABLE OF CONTENTS



 

# 1 INTRODUCTION

This document constitutes Product Category Rules (PCR) developed in the framework of the International EPD System: a programme for Environmental Product Declarations (EPD)[1] according to ISO 14025:2006, ISO 14040:2006, ISO 14044:2006, and product-specific standards, such as EN 15804 and ISO 21930 for construction products. EPDs are voluntary documents for a company or an industry association to present transparent, consistent, and verifiable information about the environmental performance of their products (goods or services).

The General Programme Instructions (GPI), publicly available on www.environdec.com, includes the rules for the overall administration and operation of the programme and the basic rules for developing EPDs registered in the programme. A PCR complements the GPI and the normative standards by providing specific rules, and guidelines for developing an EPD for one or more specific product categories (see Figure 1), thereby enabling the generation of consistent EPDs within a product category. A PCR should not repeat the rules and guidelines of the GPI, but include additions, specifications and deviations to the rules set in the GPI. As such, a PCR shall be used together with the GPI.

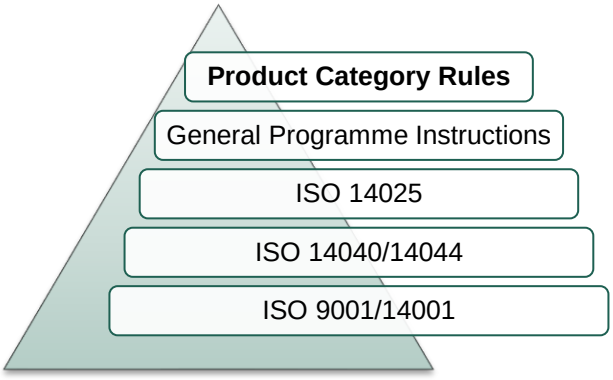


*Figure 1. The hierarchy between PCRs, standards, and other documents.*

The present PCR uses the following terminology:

- The term “shall” is used to indicate what is obligatory, i.e., a requirement.
- The term “should” is used to indicate a recommendation. Any deviation from a recommendation shall be justified in the EPD development process.
- The terms “may” or “can” are used to indicate an option that is permissible.

For definitions of other terms used in the document, see the GPI and normative standards.

Any references to this PCR shall include the PCR registration number, name, and version number.

The programme operator maintains the copyright of the PCR to ensure that it is possible to publish, update, and make it available to all organisations to develop and register EPDs. Stakeholders participating in PCR development should be acknowledged in the final document and on the website.

[1] Termed type III environmental declarations in ISO 14025.

# 2 GENERAL INFORMATION

## 2.1 ADMINISTRATIVE INFORMATION

| | |
|---|---|
| Name: | Basic iron or steel products & special steels, except construction steel products |
| Registration number and version: | PCR 2015:03, Version 3.0.1 |
| Programme: | EPD INTERNATIONAL EPD SYSTEM |
| Programme operator: | EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden.<br>Website: www.environdec.com<br>E-mail: support@environdec.com |
| PCR Moderator: | Gorka Benito Alonso, IK INGENIERIA, g.benito@ik-ingenieria.com |
| PCR Committee: | ▪ Clare Broadbent - World Steel Association<br>▪ Federico Musoni - NLMK Verona<br>▪ Mats Zakcrisson - RISE Research Institutes of Sweden<br>▪ Cesar Ruiz - Global Steel wire<br>▪ Emilio Hidalgo - Sidenor Special Steels<br>▪ Carlos Javier Abajo - CELSA, Castellbisbal<br>▪ Olivier Nodin - Ascométal France<br>▪ Carlo Brondi - Cnr - STIIMA. Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing |
| Publication date: | 2026-01-30 (Version 3.0.1)<br>See Section 9 for a version history of the PCR. |
| Valid until: | 2029-07-14<br>The validity may change. See www.environdec.com for the latest version of the PCR and the latest information on its validity and transition periods between versions. |
| Development and updates: | The PCR has been developed following ISO 14027, including public consultation and review. The rules for the development and updating processes are described in Section 9 of the GPI.<br><br>The PCR is valid for a pre-determined time period to ensure that it is updated at regular intervals. When the PCR is about to expire, the PCR Moderator shall initiate a discussion with the Secretariat on if and how to proceed with updating the PCR and renewing its validity. A PCR may be updated before it expires, based on changes in normative standards or provided significant and well-justified proposals for changes or amendments are presented.<br><br>When there has been an update of the PCR, the new version should be used to develop EPDs. For small updates (change of third-digit version number), the previous version is normally immediately removed from the PCR library on www.environdec.com and there is no transition period. For medium updates (change of second-digit version number), the previous version of the PCR is valid in parallel during a transition period of at least 90 days, but not exceeding its previously set validity period. For large updates (change of first-digit version number), the previous version is valid in parallel during a transition period of at least 180 days, but not exceeding its previously set validity period.<br><br>Stakeholder feedback on PCRs is very much encouraged. Any comments on this PCR may be sent directly to the PCR Moderator and/or the Secretariat during its development or during its period of validity. |

| | |
|---|---|
| Standards and documents conformance: | General Programme Instructions of the International EPD System, version 5.0, based on ISO 14025 and ISO 14040/14044.[2] |
| PCR language(s): | At the time of publication, this PCR was available in English. If the PCR is available in several languages, these are available on www.environdec.com. In case of translated versions, the English version takes precedence in case of any discrepancies. |

## 2.2 SCOPE OF PCR

### 2.2.1 PRODUCT CATEGORY DEFINITION AND DESCRIPTION

This document provides Product Category Rules (PCR) for the assessment of the environmental performance of Crude steel and/or basic iron steel products including Special steels (except those destined to become construction products) and the declaration of this performance by an EPD. The product category corresponds to UN CPC 4112 (Crude steel) and 412 (Products of iron or steel, not finished).

Crude steel and/or basic iron steel products must be considered those semi-finished steels or intermediate steels that will be further processed to become a finished consumer product. For example, ingots, billets, blooms, billets, slabs, plates, bars, rolled steel, etc., fall under the scope of this PCR, when they are manufactured with the goal to be supplied to further manufacturers and then transformed in final products like naval chains, bearing steels, tool steels, shafts for automotive industry, etc.

Additionally, Pig Iron is also under the scope of this PCR.

This PCR covers the following steel manufacturing technologies: Blast Furnace (BF), Basic Oxygen Furnace (BOF) and Electric Arc Furnace (EAF), further described as:

- The steel making process using pig-iron from the blast furnace and scrap steel through BF and/or BOF.
- The steel making process using scrap steel or direct reduced iron (DRI) through EAF.
- Combined BF-BOF integrated steelmaking process.

In the verified EPD, the technology used to manufacture the semi-finished steel product shall be described.

Other alternative steel making technologies (as for example inductive furnace route) are not covered by this PCR.

The product group and CPC code shall be specified in the EPD according to the classification as follows. The product category is defined under ISIC – CPC's classifications (CPC codes in bold are covered by the PCR):

| **United Nations Central Product Classification** | | **UN CPC 4112** |
|---|---|---|
| Section: | 4 - | Metal products, machinery and equipment |
| Division: | 41 - | Basic metals |
| Group: | 411 - | Basic iron and steel |
| **Class:** | **4112 -** | **Crude steel** |
| **Subclasses** | **41121** | **Non-alloy steel in ingots or other primary forms, and semi-finished products of non-alloy steel"** |
| | **41122** | **Alloy steel in ingots or other primary forms and semi-finished products of alloy steel"** |

| **United Nations Central Product Classification** | | **UN CPC 412** |
|---|---|---|
| Section: | 4 - | Metal products, machinery and equipment |
| Division: | 41 - | Basic metals |
| **Group:** | **412 -** | **Products of iron or steel** |
| **Classes:** | **4121 -** | **Flat-rolled products of steel, not further worked than hot-rolled** |
| | **4122** | **Flat-rolled products of steel, not further worked than cold-rolled"** |

[2] Some rules influencing EPD development are independent of the GPI version referred to in the PCR. For example, the latest rules on EPD verification procedures in the GPI shall be followed within 90 days of its publication. See Section 5.1 in the GPI for a description of the four categories of rules and when they shall be followed.

| | | |
|---|---|---|
| | **4123** | **Flat-rolled products of steel, further worked than hot-rolled or cold-rolled; flat-rolled products of silicon-electrical and high-speed steel, whether or not further worked"** |
| | **4124** | **Bars and rods, hot-rolled, of iron or steel** |
| | **4125** | **Angles, shapes and sections, not further worked than hot-rolled, hot-drawn or extruded, of iron or non-alloy steel; sheet piling of steel; welded angles, shapes and sections, of steel; railway or tramway track construction material of steel** |
| | **4126** | **Bars, rods, angles, shapes and sections, cold-processed or further worked, of iron or steel; angles, shapes and sections, hot-rolled, hot-drawn or extruded, of alloy steel; steel wire"** |
| | **4127** | **Bars and rods of high-speed steel and silico-manganese steel; hollow drill bars and rods of steel"** |
| | **4128** | **Tubes, pipes and hollow profiles, of steel"** |
| | **4129** | **Tubes, pipes and hollow profiles of cast-iron and cast-steel and related fittings; tube or pipe fittings of steel other than cast"** |

Construction steels are not included in this PCR, as they are covered by the existing PCR 2019:14 Construction products, compliant with the EN 15804 standard “Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products”.

Product category CPC 41117 Granules and powders of pig iron and spiegeleisen are not included in this PCR as additional and different manufacturing processes are involved in them (reduction, atomization) than the usual steel products (meaning ingots, billets, blooms, billets, slabs, plates, bars, rolled steel).

### 2.2.2 GEOGRAPHICAL SCOPE

This PCR may be used globally.

### 2.2.3 EPD VALIDITY

An EPD becomes valid as of its version date (see Section 8.4.5 of the GPI). When an EPD is originally published, the validity period is normally five years starting from the version date or until the EPD has been de-registered from the International EPD System. Shorter validity periods are also accepted, for example if decided by the EPD owner.

For rules on when an EPD shall be updated and re-verified during its validity, see Section 6.8.1 of the GPI. For validity periods in case of updates of EPDs, see Section 6.8 of the GPI.

The version date and the period of validity shall be stated in the EPD.

Publication of a new version of the PCR or the GPI does not affect the validity of already published EPDs.

# 3 REVIEW AND BACKGROUND INFORMATION

This PCR was developed in accordance with the PCR development process described in the GPI of the International EPD System, including open consultation and review.

## 3.1 OPEN CONSULTATION

### 3.1.1 VERSION 1.0

This PCR was available for open consultation from 2015-02-15 until 2015-04-17, during which any stakeholder was able to provide comments by posting on the PCR forum on www.environdec.com or by contacting the PCR moderator.

Stakeholders were invited via e-mail or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

No comments were received.

### 3.1.2 VERSION 2.0

This PCR was available for open consultation from 2019-10-08 until 2019-12-03, during which any stakeholder was able to provide comments by posting on the PCR forum on www.environdec.com or by contacting the PCR moderator.

Stakeholders were invited via e-mail or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders.

No comments were received.

### 3.1.3 VERSION 3.0.0

This PCR update was available for open consultation from 2024-11-06 until 2025-01-06, during which any stakeholder was able to provide comments by contacting the PCR Moderator and/or the Secretariat.

Stakeholders were invited via e-mail or other means to take part in the open consultation and were encouraged to forward the invitation to other relevant stakeholders. The following stakeholders provided comments during the open consultation and agreed to be listed as contributors in the PCR and on www.environdec.com:

- Matthew Rumsa, Curtin University
- Sofia Poulikidou, Höganäs Sweden AB

## 3.2 PCR REVIEW

### 3.2.1 VERSION 1.0

| | |
|---|---|
| PCR review panel: | The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com.<br><br>Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review. |
| Chair of the PCR review: | Massimo Marino |
| Review dates: | 2015-06-05 – 2015-06-25 |

### 3.2.2 VERSION 2.0

| | |
|---|---|
| PCR review panel: | The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via support@environdec.com.<br><br>Members of the Technical Committee were requested to state any potential conflict of interest with the PCR moderator or PCR committee and were excused from the review. |
| Chair of the PCR review: | Hudai Kara |
| Review dates: | 2019-12-05 – 2020-03-27 |

### 3.2.3 VERSION 3.0.0

| | |
|---|---|
| PCR review panel: | The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via support@environdec.com.<br><br>Members of the Technical Committee were requested to state any potential conflict of interest with the PCR moderator or PCR committee and were excused from the review. |
| Chair of the PCR review: | Claudia A. Peña |
| Review dates: | 2025-04-21- 2025-06-30 |

## 3.3 EXISTING PCRS FOR THE PRODUCT CATEGORY

As part of the development of this PCR, existing PCRs and other internationally standardised methods that could potentially act as PCRs were considered to avoid unnecessary overlaps in scope and to ensure harmonisation with established methods of relevance for the product category. The existence of such documents was checked among the following EPD programmes and international standardisation bodies:

- International EPD System. www.environdec.com.
- AENOR Global EPD. https://www.aenor.com/
- EPD Norge. https://www.epd-norge.no/
- BRE Global Ltd https://bregroup.com/
- Institut Bauen und Umwelt (IBU): https://epd-online.com
- SCS Global Services https://www.scsglobalservices.com/
- UNE Spanish standardisation body
- Product Environmental Footprint Category Rules (PEFCR) for Metal Sheets

*Table 1. Existing PCRs and other internationally standardised methods that were considered to avoid overlap in scope and to ensure harmonisation with established methods.*

| Name of PCR/standard, incl. registration number | Programme/standardisation body | Version number | Scope |
|---|---|---|---|
| UNE 36904-1:2018 Iron and steel industry. Environmental product declarations. Product category rules for steel | UNE is the Spanish standardisation body | 2018-11-28 | This standard establishes the basic product category rules (PCR) for Type III environmental declarations for basic hot-rolled |

| | | | |
|---|---|---|---|
| products for concrete and steel structures. Part 1: Hot rolled non-alloy steel long products from electric furnace | | | construction steel products marketed in Spain and Portugal (geographical scope considered). |
| UNE 36904-2:2018<br>Iron and steel industry. Environmental product declarations. Product category rules for steel products for concrete and steel structures. Part 2: Processed products and prestressing system applicators | UNE is the Spanish standardisation body | 2018-11-28 | This standard establishes the basic product category rules (PCR) for Type III environmental declarations for processed products construction steel products marketed in Spain and Portugal (geographical scope considered). |
| NPCR 013<br>Steel and aluminium construction products | EPD NORGE | 06.10.2021 | LCA basis for developing EPDs for finished steel construction products manufacturers |
| Building metals | IBU | V6 | LCA basis for developing EPDs for Building metals |
| Structural steels | IBU | V7 | LCA basis for developing EPDs for Structural steels |
| Thin walled profiles and profiled panels of metal | IBU | V6 | LCA basis for developing EPDs for walled profiles and profiled panels of metal |
| Reinforcing Steel | IBU | V6 | LCA basis for developing EPDs for Reinforcing Steel |
| Steel pipes for pressure applications | IBU | V6 | LCA basis for developing EPDs for Steel pipes for pressure applications |

## 3.4 REASONING FOR DEVELOPMENT OF PCR

This PCR was developed to enable publication of EPDs for the product category defined in Section 2.2.1 based on ISO 14025 and ISO 14040/14044. The PCR enables different practitioners to generate consistent results when assessing the environmental impact of products of the same product category, and thereby it supports comparability of products within a product category.

## 3.5 UNDERLYING STUDIES USED FOR PCR DEVELOPMENT

The methodological choices made during the development of this PCR (declared/functional unit, system boundary, allocation methods, impact categories, data quality rules, etc.) were primarily based on the following underlying studies:

- EPD International (2022) Sidenor Aceros Especiales S.L. 37MnSiV6R Microalloyed steel. Registration number EPD-IES-0001623:004. Available on www.environdec.com.
- EPD International (2022) Global Steel Wire, SA. High carbon wire, cold heading wire and wire derivatives. Registration number EPD-IES-0006522:002. Available on www.environdec.com.
- EPD International (2023) nervacero, S.A.(Celsa Group). Steel billets. Registration number EPD-IES-0008500:002. Available on www.environdec.com.
- EPD International (2023) Celsa France, S.A.S. Steel billets. Registration number EPD-IES-0008492:002 and EPD-IES-0008494:002. Available onwww.environdec.com.
- EPD International (2024) Laminados Losal S.A.U. Bulb flat. Registration number EPD-IES-0012893:001. Available onwww.environdec.com.
- EPD International (2023) Acerinox Europa S.A.U. Hot-Rolled ferritic Stainless steel. Registration number EPD-IES-0008509:003. Available on www.environdec.com.
- EPD International (2023) Acerinox Europa S.A.U. Cold Rolled Ferritic Stainless Steel. Registration number EPD-IES-0008508:003 Available on www.environdec.com.

- EPD International (2023) Acerinox Europa S.A.U. Hot rolled Austenitic Stainless Steel. Registration number EPD-IES-0008507:003. Available on www.environdec.com.
- EPD International (2023) Acerinox Europa S.A.U. Cold-Rolled Austenitic Stainless Steel. Registration number EPD-IES-0008506:003. Available on www.environdec.com.

 

# 4 LCA METHOD

This section provides rules for the LCA method used to develop an EPD for the product category as defined in Section 2.2.1. The basic rules of the LCA method are set in Annex A of the GPI, and this section only includes additions, specifications and deviations to the rules set in the GPI. Guidance and examples of applying the LCA method are also available on www.environdec.com/methodology.

## 4.1 MODELLING APPROACH

See Section A.1 of the GPI.

## 4.2 DECLARED UNIT

In this PCR, a declared unit is used instead of a functional unit. A declared unit is used when the function or end-use of the product is unknown or cannot be established.

The declared unit shall be defined as **1 tonne (1000 kg) of semi-finished iron or steel product and its packaging (the weight of the packaging is not included in this 1000kg). The reference flow corresponds to the declared unit and shall be defined at the at the manufacturer gate**.

The declared unit shall be specified in the EPD. The declared unit is independent of the production characteristics in terms of diameter ranges or other geometrical characteristics.

### 4.2.1 TECHNICAL SPECIFICATION, LIFESPAN AND REFERENCE SERVICE LIFE (RSL)

As noted in Section 2.1.1, crude steel and/or basic iron steel products are considered to be semi-finished steels or intermediate steels that will be further processed to become a finished consumer product, but its final form function and use is not yet defined when declaring the current environmental data according to the scope covered by this PCR.

RSL is not relevant because the (cradle-to-gate) LCA does not identify an application for the material, hence RSL cannot be determined at this stage.

## 4.3 SYSTEM BOUNDARY

As this PCR covers intermediate products or products for which further processing, the end use is unknown. The system boundary then is limited to “cradle to gate” in accordance with GPI Section A.3.

All environmentally relevant processes from “cradle-to-gate” should be included, so that at minimum 95% of the total energy use, mass of product content, and environmental impact is accounted for (see Section 4.5).

### 4.3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

According to the “cradle-to-gate” scope of this PCR, the product life cycle shall be divided into the A1-A3 life-cycle stages and information modules:

- Product stage, modules A1-A3:
  - A1: Raw material extraction and processing (e.g., mining of iron ore, coal, alloys), production of materials, processing of secondary material input (e.g., scrap, recycled alloys), production of distribution and consumer packaging, etc. Among others, this includes the following processes:
    - Production of, sintered, pelletized, direct reduced and briquetted iron.
    - Production of anthracite or metallurgical coke.
    - Processing of scrap.
    - Production of distribution and consumer packaging, if relevant.
  - A2: Transport of all materials from the suppliers to the manufacturer of the semi-finished iron or steel product

- A3: Manufacturing of the product[3]
    - Production of auxiliary materials consumed in the manufacturing process, including e.g., limestone, electrodes, refractory, fluxes, chemicals.
    - Treatment of waste generated during manufacturing (slag, sludges, etc.)
    - Electricity used in the manufacturing process.
    - Production and consumption of fuels, steam and other energy carriers used in the manufacturing.

In the EPD, the environmental performance of each A1-A3 life-cycle stages shall be reported separately, and in aggregated form for the life-cycle stages (module A).

Note that generation of electricity and production of fuels, steam and other energy carriers shall be assigned to the information module in which the energy carrier is used. Also note that each module shall include the waste processing of waste generated in the module up to the end-of-waste state or final disposal. Related, note the way of assigning losses described in Figure 3 of Section A.3.1 of the GPI.

Processes not listed here may also be included. All elementary flows at resource extraction shall be included, except for the flows that fall under the general cut-off rule in Section 4.5.

#### 4.3.1.1 Excluded processes

See Section A.3.1.1 of the GPI.

#### 4.3.1.2 Infrastructure and capital goods

See Section A.3.1.2 of the GPI.

### 4.3.2 OTHER BOUNDARY SETTING RULES

See Section A.3.2 of the GPI for rules on setting boundaries to nature as well as geographical and temporal boundaries. See Section A.4 of the GPI and Section 4.6 below for rules on setting boundaries to other product systems.

## 4.4 PROCESS FLOW DIAGRAM

Figure 1 and Figure 2 provide general process flow diagrams for the product category. The EPD shall declare a specific process flow diagram of the product, which will depend on the technologies and the integrated processes of the manufacturer.

- Steel making process using pig-iron from blast furnace and scrap steel through Basic Oxygen Furnace (BOF).

[3] These are often, but not always, the processes under operational control of the EPD owner.

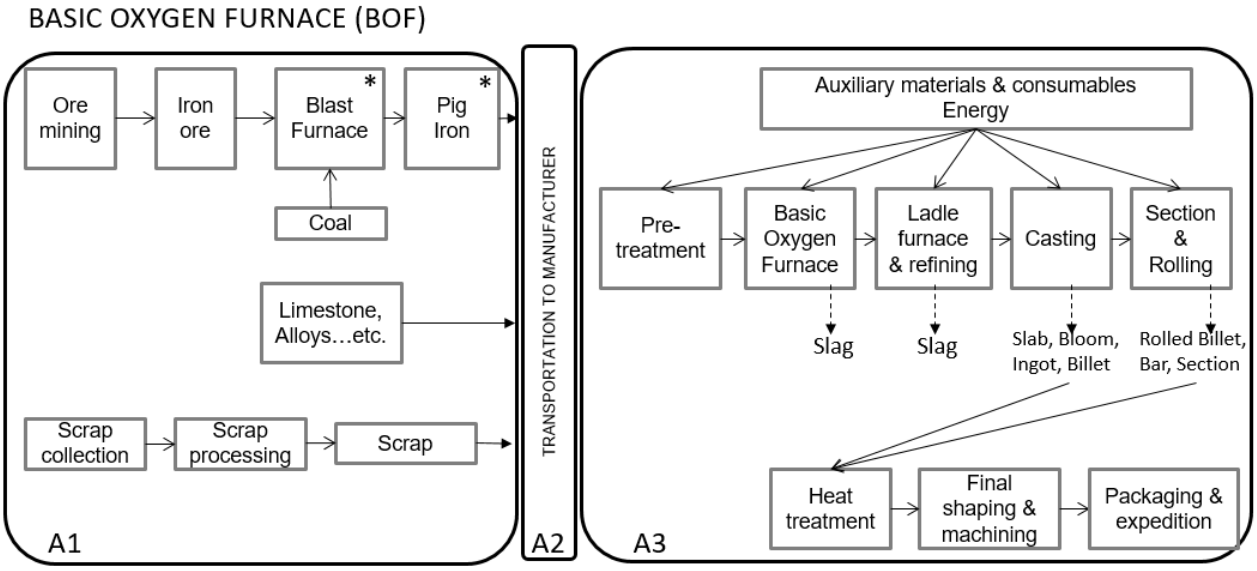


*Figure 1. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.*

- The steel making process using scrap steel or direct reduced iron (DRI) through Electric Arc Furnace (EAF)

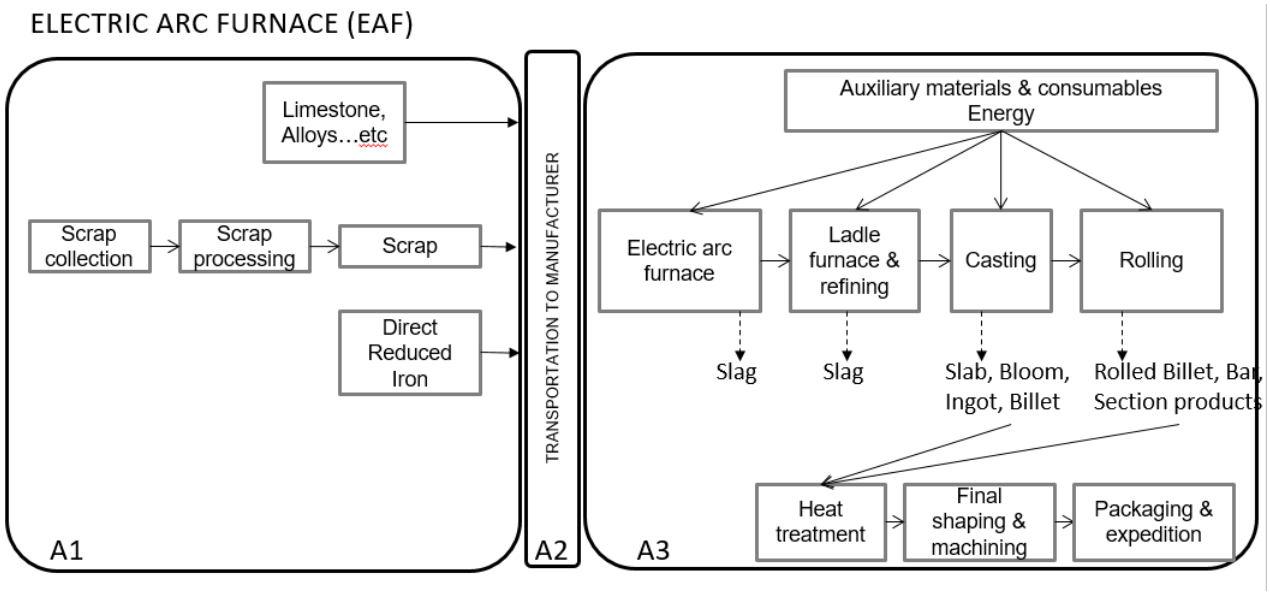


*Figure 2. Process flow diagram illustrating the processes that shall be included in the product system, divided into the life-cycle stages. The illustration of processes to include may not be exhaustive.*

## 4.5 CUT-OFF RULES

See Section A.3.3 of the GPI.

## 4.6 ALLOCATION RULES

See Section A.4 of the GPI.

### 4.6.1 ALLOCATION OF CO-PRODUCTS

See Section A.4.1 of the GPI.

Most common co-products that come from the steel making process such as steel scrap, blast furnace slag, flue gases shall be allocated as co-products.

To differentiate between co-products and waste, please see Section A.4.1 of the GPI.

Note 1: For a recycled material (e.g., scrap) to be classified as waste, and thus be required to be classified as waste and not as a co-product, it is sufficient that one of the criteria of the end-of-waste state at some point has ceased to be fulfilled. This means that there can be materials for recycling that have positive economic value but are still classified as waste and thus allocated according to the rules in Section 4.6.2.

Note 2: Recycled materials from a scrapyard where the origin is unknown (e.g., data/statistics are missing for the specific scrapyard or the country of its location), shall be assumed to be waste and allocated accordingly. Further guidance may be provided on www.environdec.com/methodology. For consistency, scrap sent to a scrapyard shall be assumed to be waste and allocated accordingly.

### 4.6.2 ALLOCATION OF WASTE

See Section A.4.2 of the GPI.

## 4.7 DATA AND DATA QUALITY RULES

See Section A.5 of the GPI.

### 4.7.1 DATA CATEGORIES

See Section A.5.1 of the GPI.

### 4.7.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA

See Section A.5.2 of the GPI.

Additionally, the reference year of the primary data shall not be more than five years old and shall be representative for the validity period of the EPD (if not, the EPD shall be updated, see Section 2.2.4). The reference year, which does not need to be a calendar year, is the latest year in which the data provider confirmed the data to be representative/valid, i.e., the end year for the most recently set validity period.[4] This means that primary LCI data can have been collected more than five years ago, but the representativeness/validity shall have been reassessed and confirmed by the data provider (the manufacturer/service provider) within the past five years.[5] In such reassessments, it may be that data is confirmed to be conservative compared to fully representative data, for example because it is known that the manufacturing process has improved (e.g., less material losses or lower energy use) but collected data from the past five years is missing. In such cases, the reference year can still be updated, and the data can still qualify as primary data. If this is done, it shall be described and justified in the LCA report.

[4] This definition of “reference year” is a specification and merge of the definitions in EN 15804, EN 15941, ISO 21930 and in the ILCD format.

[5] This reassessment can, for example, be done based on collected metadata, such as information on the type of machinery being used in a manufacturing process. So it can be that some data (LCI and/or meta data) have been collected within five years, while some data are older than five years but has been confirmed to still be representative based on the more recently collected data. An example: the amount of electricity a machinery use and the emissions generated was measured seven years ago, but within the past five years the producer has confirmed the same machine is still in use and has provided updated data on the type of electricity used to run the machine.

### 4.7.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

See Section A.5.3 of the GPI.

### 4.7.4 DATA QUALITY ASSESSMENT AND DECLARATION

See Section A.5.4 of the GPI.

### 4.7.5 EXAMPLES OF DATABASES FOR SECONDARY DATA

Table 2 lists examples of databases and datasets to be used for secondary data. Note that a data quality assessment shall be performed also for data listed in the table, and that other data that fulfil the data quality requirements may also be used.

*Table 2. Examples of databases and datasets to use for secondary data.*

| Process | Geographical scope | Database |
|---|---|---|
| Steel, iron ore and pig iron | Global | Ecoinvent database, cut.-off www.ecoinvent.com |
| Electricity | Global | Data combined with IEA (International Energy Agency) statistics on electricity generation mixes for nations, regions, etc. http://www.iea.org/statistics/ |
| Electricity | Global | Ecoinvent database www.ecoinvent.com |
| Chemicals | Global | Ecoinvent database www.ecoinvent.com |
| Transports | European | European Reference Life Cycle Data System (ELCD) http://eplca.jrc.ec.europa.eu/ELCD3 |
| Transports | Global | Ecoinvent database www.ecoinvent.com |
| Waste management | Global | Ecoinvent database www.ecoinvent.com |

## 4.8 OTHER LCA RULES

See Section A.6 of the GPI.

### 4.8.1 MASS BALANCE

See Section A.6.1 of the GPI.

### 4.8.2 ELECTRICITY MODELLING

See Section A.6.2 of the GPI.

The following requirement for contractual instruments in the GPI may not be possible to comply with in all markets for contractual instruments: “the contractual instrument shall be valid for at least the upcoming six months from the publication of the EPD.” Therefore, it is replaced with the following: “is produced as close as possible to the period to which the contractual instrument is applied and comprises a corresponding timespan.”

### 4.8.3 BIOGAS MODELLING

See Section A.6.3 of the GPI.

## 4.9 SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

See Section A.7 of the GPI.

## 4.10 ENVIRONMENTAL PERFORMANCE INDICATORS

See Section A.8 of the GPI.

## 4.11 SPECIFIC RULES PER EPD TYPE

### 4.11.1 MULTIPLE PRODUCTS FROM THE SAME COMPANY

See Section A.9.1 of the GPI.

As a reminder, note that several sets of results reflecting different products, shall not be declared in the same EPD.

### 4.11.2 SECTOR EPD

See Section A.9.2 of the GPI.

### 4.11.3 EPD OWNED BY A TRADER

See Section A.9.3 of the GPI.

### 4.11.4 EPD OF PRODUCT NOT YET ON THE MARKET

See Section A.9.4 of the GPI.

### 4.11.5 EPD OF PRODUCT RECENTLY ON THE MARKET

See Section A.9.5 of the GPI

# 5 CONTENT OF LCA REPORT

Data for verification shall be presented in the form of an LCA report – a systematic and comprehensive summary of the project documentation that supports the verification of an EPD. The LCA report is not part of the public communication.

See Section 8.3.1 of the GPI for rules on the content of the LCA report.

Note that there may be rules on the content of the LCA report elsewhere in the GPI or in this PCR.

# 6 CONTENT AND FORMAT OF EPD

See Section 7 of the GPI.

## 6.1 EPD LANGUAGES

See Section 7.1 of the GPI.

## 6.2 UNITS AND QUANTITIES

See Section 7.2 of the GPI.

## 6.3 USE OF IMAGES IN EPD

See Section 7.3 of the GPI.

## 6.4 SECTIONS OF THE EPD

See Section 7.4 of the GPI.

### 6.4.1 COVER PAGE

See Section 7.4.1 of the GPI.

### 6.4.2 GENERAL INFORMATION

See Section 7.4.2 of the GPI.

### 6.4.3 INFORMATION ABOUT EPD OWNER

See Section 7.4.3 of the GPI.

### 6.4.4 PRODUCT INFORMATION

See Section 7.4.4 of the GPI.

### 6.4.5 CONTENT DECLARATION

See Section 7.4.5 of the GPI.

### 6.4.6 LCA INFORMATION

See Section 7.4.6 of the GPI.

### 6.4.7 ENVIRONMENTAL PERFORMANCE

See Section 7.4.7 of the GPI.

The EPD shall declare the environmental performance indicators listed or referred to in Section 4.10, per declared unit, per life-cycle stage A1 to A3 separated, and in aggregated form.

### 6.4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

See Section 7.4.8 of the GPI.

### 6.4.9 ADDITIONAL SOCIAL AND ECONOMIC INFORMATION

See Section 7.4.9 of the GPI.

### 6.4.10 INFORMATION RELATED TO SECTOR EPDS

See Section 7.4.10 of the GPI.

### 6.4.11 VERSION HISTORY

See Section 7.4.11 of the GPI.

### 6.4.12 ABBREVIATIONS

See Section 7.4.12 of the GPI.

### 6.4.13 REFERENCES

See Section 7.4.13 of the GPI.

# 7 LIST OF ABBREVIATIONS

| | |
|---|---|
| CPC | Central product classification |
| EPD | Environmental product declaration |
| GPI | General Programme Instructions |
| ISO | International Organization for Standardization |
| LCA | Life cycle assessment |
| PCR | Product category rules |
| RSL | Reference service life |
| UN | United Nations |
| SI | The International System of Units |
| BOF | Basic Oxygen Furnace |
| EAF | Electric Arc Furnace |
| CO2 | Carbon dioxide |
| NMVOC | Non-methane volatile organic compounds |
| $SO_2$ | Sulphur dioxide |

# 8 REFERENCES

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EPD International (2025) General Programme Instructions for the International EPD System. Version 5.0.1, dated 20245-02-27. Available on www.environdec.com.

ISO (2006a) ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

ISO (2006b) ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework.

ISO (2006c) ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines.

ISO (2015a) ISO 14001:2015, Environmental management systems – Requirements with guidance for use.

ISO (2015b) ISO 9001:2015, Quality management systems – Requirements.

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# 9 VERSION HISTORY OF PCR

## VERSION 1.0, 2015-07-01

Original version of PCR published.

## VERSION 1.01, 2015-09-29

Corrected error, as an indicator for renewable energy resources was missing.

## VERSION 2.0, 2020-03-27

Compliance with General Programme Instructions for the International EPD® System. Version 3.01, and prolonged validity by four years.

## VERSION 2.1, 2023-09-23

Added Pig Iron under the scope of the PCR

## VERSION 2.1.1, 2024-01-17

Validity period prolonged with 1 year upon initiation of an updating process.

## VERSION 3.0.0, 2025-07-14

The content of the PCR is updated and adapted to requirements in GPI 5.0.1.

## VERSION 3.0.1, 2026-01-30

Editorial changes in cross referencing sections.

# BASIC IRON OR STEEL PRODUCTS & SPECIAL STEELS, EXCEPT CONSTRUCTION STEEL PRODUCTS

PRODUCT CATEGORY CLASSIFICATION: UN CPC 4112 AND 412