Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Heavy Steel Plates

from

ArcelorMittal Europe – Flat Products

Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company, based on the average results of the product group
EPD registration number:	EPD-IES-0022451:001
Version date:	2026-01-09
Validity date:	2031-01-08 *An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com*

GENERAL INFORMATION

Programme Information	
Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
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Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): PCR 2019:14 Construction products, version 2.0.1 Published on 2025.04.07. The product group classification for the assessed products is UN CPC 412
PCR review was conducted by: The Technical Committee of the International EPD® System. See *https://www.environdec.com/about-us/the-international-epd-system-about-the-system* for a list of members. Review chair: Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be contacted via the Secretariat www.environdec.com/contact.

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ **Individual EPD verification without a pre-verified LCA/EPD tool** Third-party verifier: Dr Matthew Fishwick, Fishwick Environmental Ltd Approved by: International EPD System
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: ArcelorMittal Europe – Flat Products.

Address: 24-26 Boulevard d'Avranches, L-1160 Luxembourg, Luxembourg.

Contact: ArcelorMittal Europe – Flat Products: flateurope@arcelormittal.com.

Address and contact information of the LCA practitioner commissioned by the EPD owner: Shubham Saini, ArcelorMittal Europe – shubham.saini@arcelormittal.com

Description of the organisation: ArcelorMittal Europe – Flat Products is the largest producer of flat steel in Europe and produces hot rolled coils, cold rolled coils, coated products, tinplate, plate, hot-dip galvanised products, enamelled and electrical steels. Flat Products has 11 integrated and mini-mill sites, and primary facilities in five countries. It sells to a wide range of industries including packaging, general industry (civil engineering, construction, domestic appliances, oil & gas, renewable energies, yellow & green goods) and automotive.

Product-related or management system-related certifications: ArcelorMittal sites are covered by CE-marking including Declaration of Performances, ISO 9001, ISO 14001, ISO 45001, and UK CA certificates.

PRODUCT INFORMATION

Product name: Heavy Steel Plates.

Product identification: Heavy Steel Plates included into this EPD are covered by one of the following names: Heavy Plates or Heavy Steel Plates.

Detailed steel properties and chemical compositions for the different products in are available at: https://industry.arcelormittal.com/catalogue#family_h

Visual representation of the product:

UN CPC code: 412 Products of iron or steel.

Product description: This EPD refers to heavy steel plates, hot rolled products produced on dedicated quarto plate mill. Steel grade range include low alloy structural steels, as-rolled, normalized and thermo-mechanically rolled, including weathering steels.

Mean thickness value is at 20 mm, but the declaration covers the whole range from 6 mm up to 150 mm. Width is up to 3300 mm and length from 4 to 25 meters. Plate weight can be up to 19 tonnes.

For the placing of the product on the market in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 (CPR) applies. The product has a declaration of performance taking into consideration EN 10025-1:2004 - Hot rolled products of structural steels - Part 1: General technical delivery conditions. For the application and use the respective national provisions apply.

This EPD refers to an average of multiple products e.g. different sizes and surface treatments. Results of the report are calculated based on the LCA results for product variant, which are then weighted averaged by the sales volumes.

Name and location of production site: ArcelorMittal Asturias (Gijon), Verina de Abajo 570, 33200 Gijon, Spain.

Manufacturing process:
Heavy Steel Plates are produced at ArcelorMittal Asturias (Gijon), in Spain. ArcelorMittal offers a full range of grades in compliance with the EN 10025-1 and EN 10025 - part 2 to 5 to meet different applications as well as other grades (naval, pressure vessel, …). This document entails the complete production at the Gijon plant.

The basic materials for the manufacture of ArcelorMittal's heavy steel plates are non-alloyed and fine grain steel. Different steel grades and qualities are possible, for example the ones being recorded in the specific product standards EN 10025-1 and EN 10025-2 or EN 10025-3 or EN 10025-4 or EN 10025-5.

A specific treatment, shot-blasting and priming, can be applied to prepare the steel for further processing for example, painting or powder coating. A dedicated LCA conducted in 2024 confirmed that the environmental impacts of these surface treatment processes are minimal relative to steel production. Products undergoing these treatments can still be considered covered by this EPD, given the insignificance of their contribution.

Steel is mainly iron and carbon, with small amounts of alloying elements. These elements modify the chemical and physical properties of steel such as strength, durability and corrosion resistance. High strength low alloyed (HSLA) carbon steel has a carbon content lower than 0,2%.

ArcelorMittal has also created different grades of weathering steels to meet different applications. Their chemical composition and mechanical performance are specified in EN 10025-5.

Applications:
Heavy Steel Plates can cover a large range of applications in construction sector, such as:

- Buildings: structural and built-up welded sections, trusses, box girders, for heavy industrial steel frame, high rise buildings, long span structure for transport and infrastructure terminals.
- Road and railway bridges: steel & composite structure made of welded built-up sections or box girders or trusses, arch and bow-string bridges, pedestrian and bicycles bridges, cable stayed and suspension deck & pylons bridges.
- Onshore and offshore wind towers and substations.
- Shipbuilding: cruise ships, commercial and special vessels.
- Art Sculpture and other industrial applications.

Heavy Steel Plates can be processed by conventional processing operations used for steelwork fabrication: oxy-cutting, bending, drilling, welding etc.

More information: https://industry.arcelormittal.com/catalogue#family_h

CONTENT DECLARATION

The values presented in the following tables reflect the mass (weight) of one unit of average product, as per declared unit: 1 tonne of Heavy Steel Plates.

Product Content

Product content	Mass, kg	Post-consumer recycled material (% of declared unit)	Biogenic material (% of declared unit)	Biogenic material (kgC/ declared unit)
Steel	1000	2	0	0
Total	1000	2	0	0

Packaging Materials

Packaging materials	Mass (kg)	Mass (% relative to the declared unit)	Biogenic material (kgC/ declared unit)
Steel	0,80	0,080	0
Plastic	0,08	0,008	0
Timber	1,46	0,146	0,73
Cardboard	1,73	0,173	0,87
Total	4,07	0,407	1,60

Note: 1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

The products do not contain any of the substances of very high concern (SVHC) regulated by the Regulation (EC) No 1907/2006 (REACH) or the Regulation (EC) No 1272/2008 of European parliament. The composition below represents the average chemical composition of the steel substrate.

Composition of the Steel Substrate

Element	Mass (kg)
Iron	> 974
Manganese	< 14,5
Silicon	< 2,5
Carbon	< 1,6
Other	< 7,1

LCA INFORMATION

Declared unit: 1 metric tonne of Heavy Steel Plates.

Product lifespan: Not applicable.

Time representativeness: The collection of the foreground data refers to the year 2022.

Databases and LCA software used: The background data has been taken from the latest available Sphera LCA FE (GaBi) database, Managed LCA Content 2023.2 and the LCA model was created using LCA Sphera for Experts software, version 10.7.1.28.

Description of system boundaries:
The system boundaries are Cradle-to-gate with modules C1–C4, and module D. Modules A4, A5, and B are excluded because a cradle-to-gate EPD only accounts for impacts up to the point the product leaves the manufacturing facility. Transport to site, installation, and use-phase impacts are project-specific and occur beyond the defined system boundary.

Geographical scope: Europe (A1-A3, C, and D)

Data Quality Assessment

The EPD is based on data collected by ArcelorMittal Europe – Flat Products from seven production sites over a one-year period (2022). It is a representation of the production at the Heavy Steel Plates manufacturing site in Spain. The EPD encompasses the end-of-life stage within the European Union.

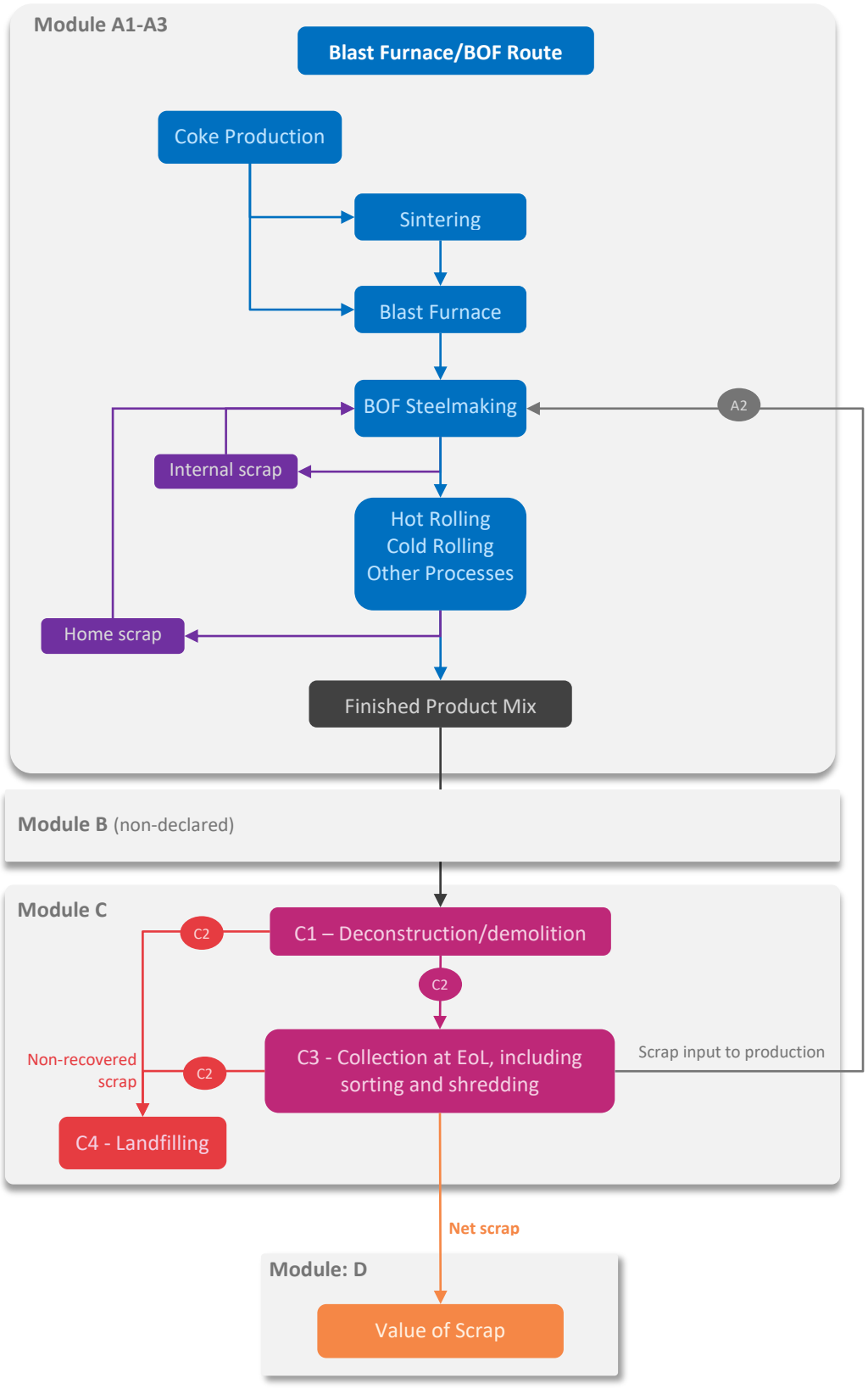
ArcelorMittal employs a consistent manufacturing process using the blast furnace–basic oxygen furnace (BF–BOF) route to produce the Heavy Steel Plates. The Life Cycle Assessment (LCA) results were established specifically for this site, ensuring an accurate and representative reflection of the product's environmental impact based on its actual production conditions.

The EPD incorporates both primary data (74,1%) collected directly from the production sites and secondary data sourced from the Sphera LCA FE (GaBi) 2023.2 database. The quality of the data, assessed in terms of temporal coverage, geographical, and technological representativeness, is rated as good to very good.

In integrated steel production facilities, energy exchanges between processes are common, particularly through gases generated in coke ovens, blast furnaces, and basic oxygen furnaces. These gases are reused internally, either directly or after conversion into electricity or steam. Therefore, the direct emissions from these interconnected processes were grouped under *manufacturing of Heavy Steel Plates* in the following table.

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Manufacturing of Heavy Steel Plates	Collected data	EPD owner	2022	Primary data	74,1%
Total share of primary data, of GWP-GHG results for A1-A3					74,1%

Process flow diagram:



- *Module A1 to A3:*

The product stage includes provision of all materials, products, and energy, as well as waste processing up to the end-of waste state or disposal of final residues during the product stage. Impacts on raw material transportation, including external scrap, and intermediate products are included.

This EPD utilizes residual electricity mix from Spain for A3 manufacturing resulting in a GWP-GHG value of 0,293 kgCO_2eq/kWh.

- *Module C1 to C4:*

Within this EPD, the modules C1-C4 are included. These modules consider the dismantling of the considered product (C1), the transportation of the dismantled components to their End of Life (EoL) destination (C2), the waste processing for recovery or recycling (C3) as well as the disposal (C4), if given.

At EoL, steel material leaves the product system in C3 for recycling in Module D. The environmental impacts from grinding, sorting and transportation of steel scrap are included. Based on common practices, the considered EoL scenario for the steel material is 93% recycling and 7% reuse.

Category	Subcategory	Unit	Quantity
Collection process	Collected separately	kg	1000
	Collected with mixed construction waste	kg	0
Recovery	Reuse	kg	70
	Recycling	kg	930
	Landfill	kg	0
	Incineration	kg	0
	Incineration with energy recovery	kg	0
	Energy conversion efficiency rate	kg	0
Disposal	Material for final disposal	kg	0
Transport	Deconstruction site to scrap processing plant	km	100
	Scrap processing plant to site for end of waste	km	200

- *Module D:*

Module D includes declared benefits and loads resulting from the net flow of secondary fuels or materials exiting the product system. This excludes flows that have been allocated as co-products.

Metals are assumed to reach the end of waste state after they have gone through a sorting and shredding process. The treatment as well as net benefits and loads of reuse or recycling potentials (for the net scrap amount only) are grouped to module D.

Potential environmental benefits are given for the net steel scrap that is produced at the end of a final product's life, calculated as follows:
Net scrap = Amount of steel recycled at end-of-life – Scrap input from previous product life cycles.

In the manufacturing of Heavy Steel Plates, 46,2 kg of external scrap was used. At the end-of-life, 930 kg of scrap are recovered for recycling and 70 kg for reuse. As reuse avoids the manufacturing of steel, it also avoids the consumption of 3,23 kg of scrap (46,2/1000*70). This means that the system has a net output of 887 kg of scrap (930 + 3,23 - 46,2), which is shown in module D as an environmental credit or burden depending on the impact category.

Cut-off criteria: The environmental impact of the product studied has been assessed by considering all significant processes, materials, and emissions. Excluded flows are assumed to have a negligible impact, contributing less than 5% to the cumulative impact assessment categories. No packaging was considered for the final product, while packaging materials and their transportation for intermediate products have been neglected due to their low contribution to the overall life cycle results. The production of capital equipment, facilities, and infrastructure required for manufacture has not been considered.

Data quality and sources: Data quality is compliant with ISO 14025:2006. All primary data were collected for 2022. All background data come from the Sphera LCA FE (GaBi) 2023.2 databases and are representative for the years 2018-2023.

Allocation: Steel production generates several co-products, such as slags, process gases, and organic products which are used by other industries. Since the production processes cannot be subdivided by each co-product, allocation is used in modelling steel products. Scrap steel leaving stages A1–A3 and C3 was handled using the cut-off approach. Economic allocation is used for partitioning inputs/outputs between hot metal and slag. For the remaining the World Steel Association and EUROFER physical allocation rules are applied methodology, which is aligned with EN 15804 (2019).

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	EU	EU	ND	ND	ND	ND	ND	ND	ND	ND	ND	EU	EU	EU	EU	EU
Share of primary data	74,1%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	N/A (single site)			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND – Not declared. EU – European Union.

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

ENVIRONMENTAL PERFORMANCE

LCA results of the product - main environmental performance results

The environmental performance of the declared unit of 1 metric tonne of Heavy Steel Plates is reported below using the parameters and units as specified in PCR 2019:14.

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The impact assessment models, indicator's units and characterisation factors used to calculate the results are obtained on the package released on February 2023 for the EN 15804 based on EF Reference Package 3.1.

Mandatory impact category indicators according to EN15804+A2:2019

Results per 1 metric tonne of Heavy Steel Plates

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO_2 eq.	2,70E+03	4,16E+01	2,60E+01	1,34E+00	2,96E-01	-1,62E+03
GWP-biogenic	kg CO_2 eq.	1,09E+00	2,22E-02	0,00E+00	9,82E-03	0,00E+00	0,00E+00
GWP-luluc	kg CO_2 eq.	1,01E+00	3,73E-01	2,45E-01	1,04E-03	9,33E-04	-2,16E-01
GWP-total	kg CO_2 eq.	2,70E+03	4,20E+01	2,63E+01	1,35E+00	2,97E-01	-1,61E+03
ODP	kg CFC 11 eq.	1,86E-09	1,54E-11	3,45E-12	2,20E-11	7,64E-13	2,18E-09
AP	mol H^+ eq.	6,19E+00	2,95E-01	1,92E-01	3,30E-03	2,13E-03	-3,97E+00
EP-freshwater	kg P eq.	1,54E-03	1,50E-04	9,69E-05	4,80E-06	6,05E-07	-3,78E-04
EP-marine	kg N eq.	1,64E+00	1,45E-01	9,51E-02	9,70E-04	5,51E-04	-6,37E-01
EP-terrestrial	mol N eq.	1,79E+01	1,61E+00	1,05E+00	1,04E-02	6,06E-03	-5,71E+00
POCP	kg NMVOC eq.	5,53E+00	2,79E-01	1,82E-01	2,63E-03	1,66E-03	-2,59E+00
ADP-minerals&metals*	kg Sb eq.	2,19E-04	2,77E-06	1,76E-06	1,95E-07	1,39E-08	-9,18E-03
ADP-fossil*	MJ	2,42E+04	5,81E+02	3,61E+02	2,71E+01	4,00E+00	-1,61E+04
WDP*	m^3	1,56E+02	6,23E-01	3,20E-01	2,66E-01	3,30E-02	-1,09E+02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment. EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.*

** The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).*

Resource use indicators according to EN 15804+A2:2019

Results per 1 metric tonne of Heavy Steel Plates							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	2,24E+03	4,68E+01	2,63E+01	1,51E+01	6,52E-01	6,37E+02
PERM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,24E+03	4,68E+01	2,63E+01	1,51E+01	6,52E-01	6,37E+02
PENRE	MJ	2,43E+04	5,83E+02	3,62E+02	2,71E+01	4,00E+00	-1,61E+04
PENRM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	2,43E+04	5,83E+02	3,62E+02	2,71E+01	4,00E+00	-1,61E+04
SM	kg	4,62E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	3,75E+00	4,96E-02	2,88E-02	1,22E-02	1,01E-03	-1,64E+02
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water						

Waste indicators according to EN 15804+A2:2019

Results per 1 metric tonne of Heavy Steel Plates							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	5,38E-08	9,53E-10	1,12E-09	-1,96E-09	8,72E-11	-1,21E-04
Non-hazardous waste disposed	kg	1,55E+01	9,69E-02	5,52E-02	1,87E-02	2,00E+01	1,95E+02
Radioactive waste disposed	kg	4,41E-01	2,88E-03	6,78E-04	3,99E-03	4,56E-05	1,77E-03

Output flow indicators according to EN 15804+A2:2019

Results per 1 metric tonne of Heavy Steel Plates							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	7,00E+01	0,00E+00	0,00E+00
Material for recycling	kg	0,00E+00	0,00E+00	0,00E+00	9,30E+02	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Other environmental performance indicators according to EN 15804+A2:2019

Results per 1 metric tonne of Heavy Steel Plates							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO_2 eq.	2,70E+03	4,17E+01	2,61E+01	1,36E+00	2,97E-01	-1,62E+03

** The indicator is calculated with characterization factors from IPCC AR6 GWP 100, excluding biogenic carbon, and includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013*

Alternative end of life scenarios

Ultimately, the user is responsible for defining the project-specific end-of-life scenario. This can be achieved by applying the three reference scenarios—100% reuse, 100% recycling, and 100% landfill. The project-specific scenario should be calculated by multiplying the actual proportions of reuse, recycling, and landfill in the project by the corresponding values provided in the next table.

The values for modules C1, C2, and C3 are not affected by the choice of end-of-life scenario and should be considered constant across all cases.

ENVIRONMENTAL INDICATOR		100% Recycling		100% Reuse		100% Landfill	
Environmental impact - core indicator	**Unit**	**C4**	**D**	**C4**	**D**	**C4**	**D**
Global warming potential - fossil fuels	kg CO_2 eq.	0,00E+00	-1,66E+03	0,00E+00	-2,70E+03	1,48E+01	8,02E+01
Global warming potential - biogenic	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Global warming potential - land use and land use change	kg CO_2 eq.	0,00E+00	-2,20E-01	0,00E+00	-1,01E+00	4,67E-02	1,07E-02
Global warming potential - total	kg CO_2 eq.	0,00E+00	-1,65E+03	0,00E+00	-2,70E+03	1,43E+01	7,98E+01
Depletion potential of the stratospheric ozone layer	kg CFC-11 eq.	0,00E+00	2,22E-09	0,00E+00	-1,86E-09	3,82E-11	-1,08E-10
Acidification potential, accumulated exceedance	mol H^+ eq.	0,00E+00	-4,05E+00	0,00E+00	-6,19E+00	1,07E-01	1,96E-01
Eutrophication, fraction of nutrients reaching freshwater end compartment	kg P eq.	0,00E+00	-3,86E-04	0,00E+00	-1,54E-03	3,02E-05	1,87E-05
Eutrophication, fraction of nutrients reaching marine end compartment	kg N eq.	0,00E+00	-6,51E-01	0,00E+00	-1,64E+00	2,75E-02	3,15E-02
Eutrophication, accumulated exceedance	mol N eq.	0,00E+00	-5,83E+00	0,00E+00	-1,79E+01	3,03E-01	2,83E-01
Formation potential of tropospheric ozone photochemical oxidants	kg NMVOC eq.	0,00E+00	-2,64E+00	0,00E+00	-5,53E+00	8,31E-02	1,28E-01
Abiotic depletion potential for non-fossil resources	kg Sb eq.	0,00E+00	-9,38E-03	0,00E+00	-2,19E-04	6,94E-07	4,54E-04
Abiotic depletion potential for fossil resources	MJ, NCV	0,00E+00	-1,65E+04	0,00E+00	-2,42E+04	2,00E+02	7,98E+02
Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	m^3 world eq. deprived	0,00E+00	-1,12E+02	0,00E+00	-1,56E+02	1,65E+00	5,41E+00
Additional environmental impact indicator							
Global warming potential – GWP-GHG	kg CO_2 eq.	0,00E+00	-1,65E+03	0,00E+00	-2,70E+03	1,43E+01	7,98E+01

Impact category indicators according to EN 15804+A1

To ensure consistency within the different versions of the EN 15804 for user performing a complete LCA of a building, the table below indicates the environmental performances of heavy steel plates following the version EN 15804+A1. The end-of life scenario for steel is 93% recycling and 7% reuse.

Results per 1 metric ton of Heavy Steel Plates							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Global warming potential	kg CO_2 eq.	2,68E+03	4,14E+01	2,59E+01	1,34E+00	2,84E-01	-1,59E+03
Depletion potential of stratospheric ozone layer	kg CFC 11 eq.	2,19E-09	1,82E-11	4,06E-12	2,59E-11	8,99E-13	2,56E-09
Acidification potential of land and water	kg SO_2 eq,	4,92E+00	2,01E-01	1,31E-01	2,57E-03	1,70E-03	-3,39E+00
Eutrophication potential	kg$(PO_4)^{3-}$ eq,	5,67E-01	5,07E-02	3,31E-02	4,06E-04	1,92E-04	-2,17E-01
Formation potential of tropospheric ozone photochemical oxidants	kg ethene-eq.	8,52E-01	-7,71E-02	-5,10E-02	2,30E-04	1,28E-04	-7,69E-01
Abiotic depletion potential for non-fossil resources	kg Sb eq.	2,22E-04	2,77E-06	1,75E-06	2,22E-07	1,41E-08	-9,18E-03
Abiotic depletion potential for fossil resources	MJ	2,25E+04	5,67E+02	3,55E+02	1,56E+01	3,84E+00	-1,67E+04

ABBREVIATIONS

Abbreviation	**Definition**
General Abbreviations	
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CLC	Co-location centre
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared

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VERSION HISTORY

Original Version of the EPD, 2026-01-09

EPD
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