7 STEEL

Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:
Hot rolled steel Norwegian production
From: 7 Steel Nordic Manufacturing AS

Programme: The International EPD System, www.environdec.com
Programme operator: EPD International AB
Type of EPD: EPD of multiple products, based on the average results of the product group
This EPD covers multiple products, the list of products can be found in page 7 of the EPD.
EPD registration number: EPD-IES-0004910:006
Version date: 2026-03-12
Validity date: 2031-03-12

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.

EPD
INTERNATIONAL EPD SYSTEM

ECO PLATFORM EPD VERIFIED

General information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	support@environdec.com

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	
PCR review was conducted by: The Technical Committee of the International EPD@ System. Review chair: Rob Rouwette. The review panel may be contacted via the Secretariat www.environdec.com/contact	
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: : Maria Feced Mateu, CERTINALIA SLU Accredited by ENAC, nº 125/C-PR283	
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 the EPD owner

Owner of the EPD:
7 Steel Nordic Manufacturing As

Address:
Postboks 500, Mo Industripark
8601 Mo i Rana (Norway)

Contact:
Halvard Meisfjord
halvard.meisfjord@7-steel.com

Address and contact information of the LCA practitioner commissioned by the EPD owner:

Abaleo S.L.
José Luis Canga Cabañes
(+34) 639 901 043
jlcanga@abaleo.es
info@abaleo.es

Description of the organisation:

7 Steel Nordic Manufacturing is a leading producer of reinforcing steel in the Nordic region, headquartered in Mo i Rana, Norway. The company operates advanced steelmaking and rolling facilities, as well as several cut-and-bend service units across Norway, Sweden, Finland, and Denmark.

The company manufactures and sells reinforcing products in the form of rebars, rebar in coils, and mesh wire rod. In addition, an increasing volume of high-quality steel products is produced and supplied to market segments beyond the construction sector. The production facilities include a scrap-based steel mill for billet production and a rolling mill for hot rolling steel products from billets made in the melt shop. Most reinforcement products are sold within the Nordic market, supporting local infrastructure and industrial projects.

Sustainability and innovation are core elements of 7 Steel Nordic's operations. The company relies on electric arc furnace (EAF) technology powered by renewable hydropower, significantly reducing CO_2 emissions compared to traditional blast furnace processes. It also engages in continuous development of low-carbon production methods, including the potential use of hydrogen in steelmaking. Through its circular approach and commitment to responsible growth, 7 Steel Nordic contributes to a more sustainable and competitive steel industry in the Nordic region.

Management system-related certifications

The company operates under certified management systems and holds certifications in accordance with ISO 9001 (quality management), ISO 14001 (environmental management), ISO 45001 (occupational health and safety management), and ISO 50001 (energy management).

Product information

Product name:
Hot-rolled steel products

UN CPC code:
4124 - Bars and rods, hot-rolled, of iron or steel

Product description:

Hot-rolled bars and rods of steel are long metal products obtained through the hot rolling process of steel ingots or billets. This process involves heating the material to high temperatures (approximately between 1,000 and 1,200 °C) and passing it through a series of rollers that give it its final shape, generally round, square, hexagonal, or flat.

These products are widely used in various industrial and construction applications. In the construction sector, they are commonly used as reinforcement in concrete structures, metal frameworks, and general structural components. In manufacturing and mechanical industries, hot-rolled bars and rods serve as raw materials for machining, forging, and further processing such as cold drawing or rolling. They are also used in the automotive sector and in the production of tools, fasteners, and machinery parts due to their strength, versatility, and good mechanical properties.

Technical properties

Material Characteristics	Value, units
Product diameter range	5.5 – 40 mm
Yield stress, Re	As per material standard
Tensile/yield ratio (Rm/Re)	As per material standard
Elongation Agt	As per material standard
Density	7850 kg/m^3
Bunde weight	1-5 tons

Product content	Value, units
Iron	98-99 %
Carbon	0,05-0,2 %
Manganese	0,3-0,7 %
Silicon	0,2 %

Material standard for hot rolled steel

Denmark: DS/EN 10080:2006, DS/EN 1992-1-1, DS/INF 165
Norway: NS-EN 10080:2005, "Bedriftens system for produksjonskontroll", NS 3576-1
Sweden: SS 212540:2014, Nordcert A1-rules
Finland: SFS 1300:2020 SFS 1300:2018 and National Type Approval Decrees 125/2016 and 126/2016
Germany: DIN 488-2, DIN 488-6, DIN 488-1, DIN 488-3
Netherlands: BRL 0501, BRL 0502, NEN 6008
UK: BS 4449, BS 4482
Czech Republic: ČSN 42 0139
Wire rod: EN-ISO 16120, EN 10017

Product Certification

Denmark: Dancert B283-01, B283-02, B283- 03, B283-04
Norway: Kontrollrådet Nr. 910624, Prod-117
Sweden: Nordcert SBS A1/001
Finland: Kiwa Inspecta Type Approval Decision No. 10017-05 and 10018-03
Germany: ZERT-1/956-a/11 and ZERT-1/956-b/11
Netherlands: KOMO K7414 and KOMO K64450
UK: Certificate No.: SE009390

Name and location of production site:

7 STEEL NORDIC MANUFACTURING AS
Postboks 500, Mo Industripark. 8601 Mo i Rana

www.7-steelnordic.com

Content declaration

This content declaration refers to 1 tonne of final product (hot-rolled steel) and represents the average production for the year 2024.

This EPD covers hot-rolled steel products manufactured through the hot rolling of steel billets, including the following product types:

- Reinforcing steel bars, with diameters ranging from 6 to 40 mm
- Reinforcing steel coils, with diameters ranging from 6 to 16 mm
- Wire rod in coils, with diameters ranging from 5.5 to 13.5 mm

Product

The products for which this EPD is prepared are produced from scrap. The melt shop utilizes the electric arc furnace (EAF) technology to produce billets from recovered ferrous scrap (76% post-consumer and 24% pre-consumer), cast iron (90% post-consumer and 10% pre-consumer), and other components (ferrous alloys, etc.). The steel products do not contain any renewable or biogenic material inputs.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material*, kg C/ product or declared unit
Steel scrap	1000	70.60%	0%	0
Total	1000	70.60%	0%	0

Packaging

The product does not use packaging in its distribution; distribution is carried out in bulk.

The manufacturer declares that during the life cycle of the studied product, no hazardous substances listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorisation" are used in a percentage over of 0.1% of the weight of the product.

LCA information

Declared unit

The declared unit is one tonne (1.000 kg) of product.

Reference service life (RSL)

RSL not specified - product use stage has not been included in the study.

Time representativeness

The data used correspond to the year 2024, a period with representative production data.

Geographical scope:

Product manufactured in Norway and distributed to Nordic region. The LCA study was conducted with European parameters.

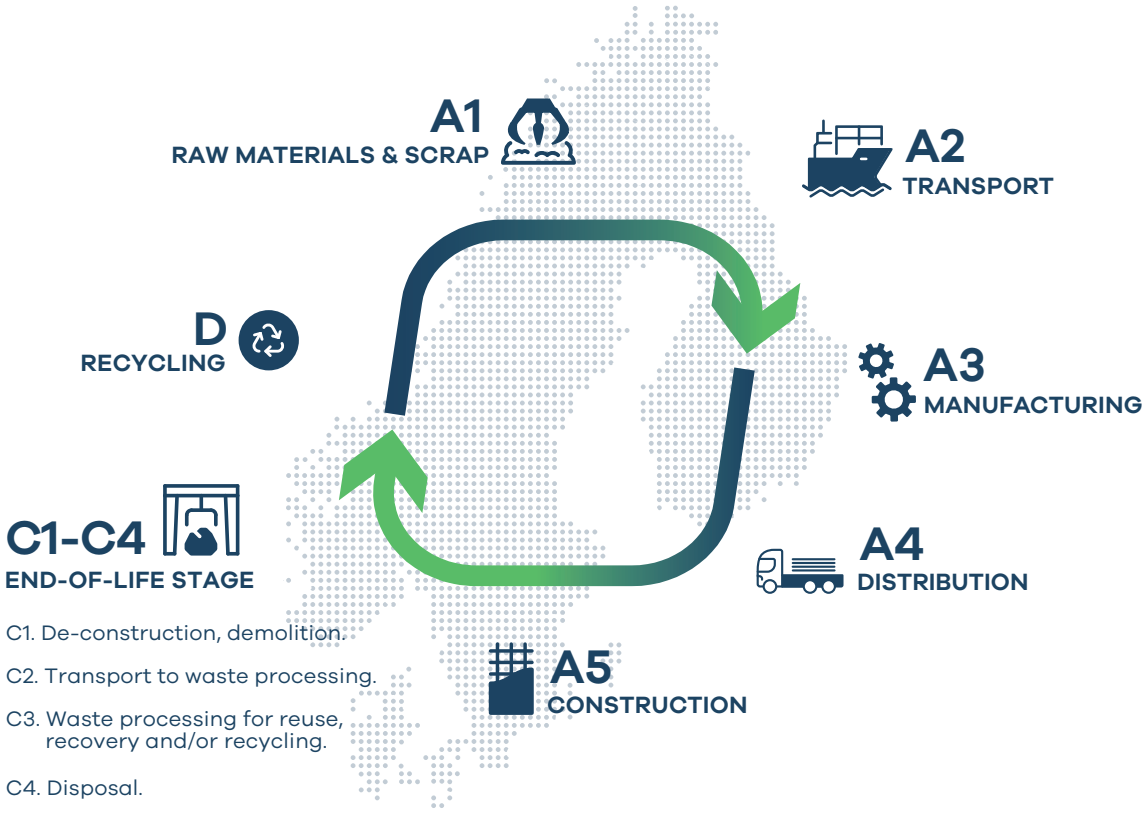
Database(s) and LCA software used

Database Ecoinvent 3.11. allocation, cut-off by classification - unit.
LCA software SimaPro 10.2.0.0.

Description of system boundaries

Cradle to gate (A1 - A3) with modules A4, C1 - C4 and module D (A1 - A3 + A4 + C + D).

System boundaries (A1 to D)



Product stage (A1-A3):

A1 – raw material supply. Extraction of resources and production of raw materials; transport to raw materials treatment/production centres; energy and fuel consumption during the production of raw materials; consumption of other resources (such as water) during the production of raw materials; generation of waste and emissions into the air and discharges into water and soil during the production of raw materials; generation of electricity and heat from primary energy resources.

The scrap enters the melt shop as waste, and it is in this facility where it ceases to have waste status. The scrap consists of external pre-consumer and post-consumer scrap, which do not carry any environmental burden from the product systems from which they originate; therefore, no allocation rules have been applied to them.

A2 – transport to the manufacturer

A3 – Manufacturing. Consumption of auxiliary materials for production has been considered and the transport and treatment to the waste manager of the waste generated during the product stage.

The LCA results are presented in an aggregated format for the product stage, where modules A1, A2, and A3 are consolidated into a single module, denoted as A1-A3.

* Data from Ecoinvent database

Distribution Stage (A4): In this stage, we considered the transportation of final products from the 7 Steel's facilities to the building site. The data represents over 80% of the distributed production. For the calculation, the weighted average of the different locations was assumed. No product losses during transport are assumed.

Installation stage (A5): Non-relevant modules. Shipping to customer and usage scenarios depend on multiple factors, so it cannot represent a single scenario.

Parameter A4	Value
Fuel type and consumption: - EURO6 truck (gross weight 29,96t) - ship, container ship	 Diesel: 0.044 l/tkm Fuel oil: 0.003 l/tkm
Average distance - Truck - Ship	53.01 km by truck 1675.76 km by ship
Capacity utilization (including empty return)	50 % *
Density of transported products	7850 kg/m3.
Volume capacity utilisation factor	1

Use stage (B1-B7): Non-relevant modules. The product studied is integrated into larger structures, so it does not require any material or energy consumption.

End-of-life stage (C1-C4): Stage C1 – de-construction/demolition. To represent the deconstruction/demolition process, a generic process from the Ecoinvent database has been used to represent the demolition process. The manufacturer declares that operations during the disassembly of its products do not generate particulate emissions into the air. Energy required by the process according to PCR 2019:14 v2.0.1

Stage C2 – transport to the waste processing according to PCR 2019:14 v2.0.1

Stage C3 and C4 – Default rates for reuse, recycling and landfill of these two types of steel products were sourced from prEN 17662 (Annex H) (CEN, 2021). Such EoL rates were defined as 90% recycling and 10% landfilling for hot rolled products.

Parameter	Value
Demolition	Diesel consumption, 1,1 kWh/tonne
Waste processing	0 kg for reuse
	900 kg for recycling.
	100 kg to landfill site.
Disposal	100 kg sent for landfill
Scenario development assumptions (transport of waste to waste manager)	Average distance – EURO 5 truck (16-32 ton) - for recycling and landfill: 80 km

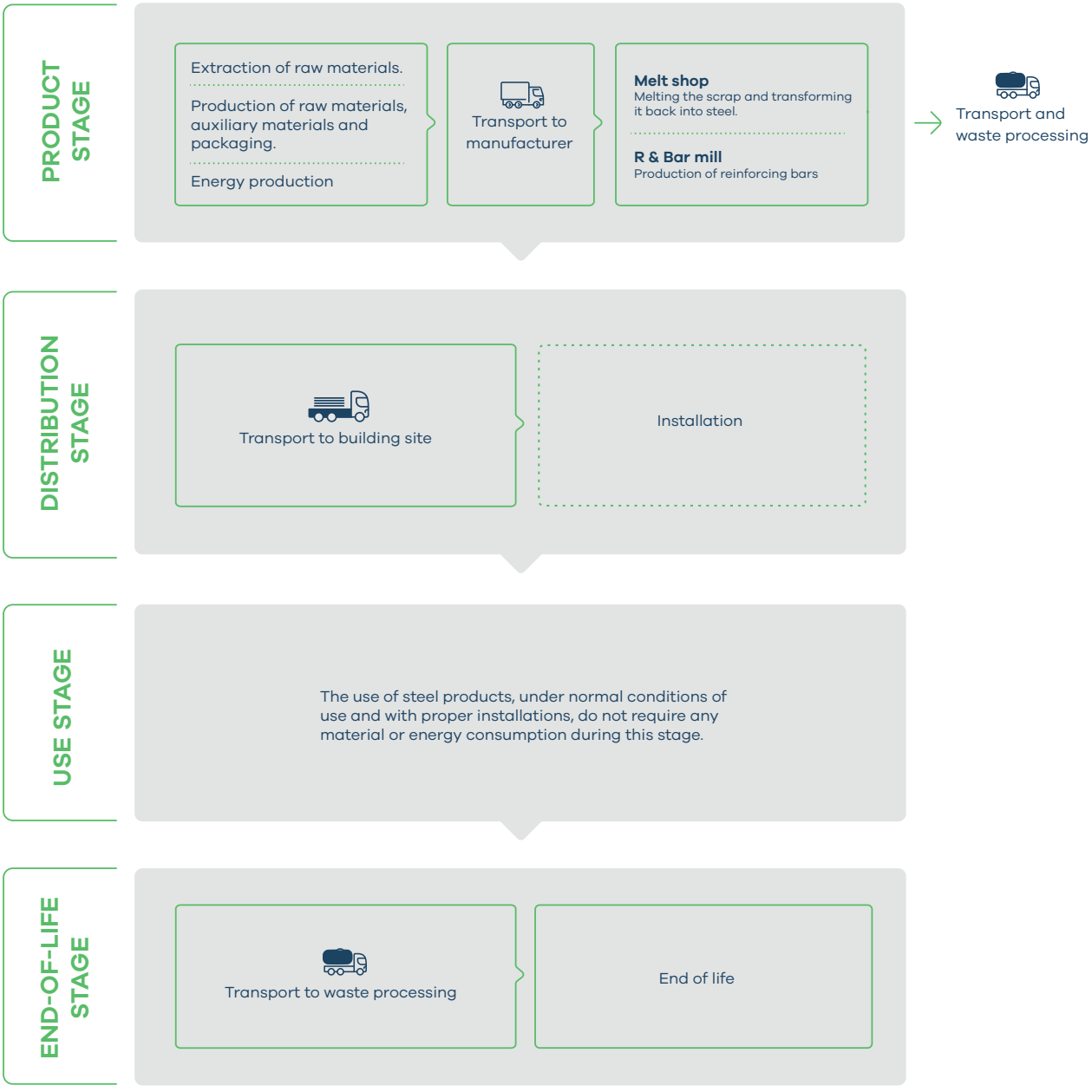
Module D:

Module D includes the reuse and recycling potential expressed as net charges and benefits related to the secondary material recovered when leaving the product system, calculating material substitution effects only for the resulting net outflow from the product stage excluding the secondary material used as input to the product stage (A1-A3).

In Hot Rolled case more scrap is used than is generated at the end of life, so in module D there are no environmental benefits; instead the environmental burdens of producing the virgin raw material needed to supply the missing scrap are accounted for.

Plant	Overview
Hot rolled	Material input: 1,0315 tons of Steel billets Scrap input: 1,134 tons Output: 0,90 tons Scrap balance: 0,234 tons

Process flow diagram



Steel scrap and other commodities are supplied to the production facility in Mo i Rana. The steel scrap is transporded to the melt shop and melted in an electric arc furnace (EAF) using Consteel technology. The molten steel is tapped into ladles and tranferred to the ladle furnace where adjustments in the chemistry of the steel is made according to product specification. The ladle is then transferred to the caster where the steel is casted into billets in five strands using 160x160 mm molds. During the production process in the melt shop four different by-products are generated; EAF slag, LF slag, steel mill dust and mill scale.

In the rolling mill the billets are heated to rolling temperature in a reheat furnace by use of different fuels. The hot billets are fed one by one into the rolling line and hot rolled into different products according to customer specifications. The finished products are supplied to customeres mainly by ship.

Representativeness, quality and selection of data:

In order to model the manufacturing process of the 7 Steel Nordic steel products, production data corresponding to the year 2024 have been used. Data on material and energy consumption, distances from suppliers and waste generation have been obtained for the lamination plant.

To assess the quality of the primary data used, the semi-quantitative evaluation criteria for data quality proposed by the European Union in its Guide to the Environmental Footprint of Products and Organizations are applied, obtaining a Data Quality Rating (DQR) = 1.63 for Hot Rolled, which indicates that the quality of the data in both cases is high.

Hot Rolled:

The data quality criteria assessed for the primary data are:

Representatividad tecnológica (TeR) – 1,75

Representatividad geográfica (GeR) – 1,75

Representatividad temporal (TiR) – 1

Precisión (P) – 2

Data quality summary according to EN 15941

The EPD is based on data collected by 7 Steel Nordic from their site in Mo i Rana, Norway, over one year from 2024. The EPD is representative of the production of hot rolled steel produced in Mo i Rana, Norway and data are collected directly from production site. The end-of-life stage of the EPD covers Norway. The EPD uses background data from the Ecoinvent database v3.11. The quality of the relevant data used for the EPD in terms of its time, geography and technology representativeness using EN 15804:2012+A2:2019, Annex E, E.2 is mainly very good. Datasets that represents Diesel consumption (Diesel, burned in building machine {GLO}| diesel, burned in building machine | Cut-off, U) is from 2019, resulting in a fair time representativeness. This dataset has 4,1% contribution towards Climate change. As no specific data could be obtained for this process, these have been assessed as best available data.

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

	Product stage			Installation stage		Use stage							End of life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	DeOconstruction 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	x	ND	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x
Geography	NO	NO	NO	EU27	-	-	-	-	-	-	-	-	EU 27	EU 27	EU 27	EU 27	EU27
Share of primary data	20.4% GWP-GHG			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

* ND: not declared module
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.

Process name	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG
Steel billet	EPD	Ecoinvent v3.11	2026	12,5% primary data	10,9%
CO gas	Company Data, Database	Ecoinvent v3.11	2024	Primary data	2,4%
Diesel	Database	Ecoinvent v3.11	2019	Primary data	4,1%
Electricity	Company Data, Database, Public National Data, Database	Ecoinvent v3.11	2026	Primary data	0,4%
Natural gas	Database	Ecoinvent v3.11	2024	Primary data	1,4%
Oxygen	Database	Ecoinvent v3.11	2025	Secundary data	0,0%
Transport	Database	Ecoinvent v3.11	2022	Primary data	1,1%
Total share of primary data, of GWP-GHG results					**20,4%**

Energy information

7 Steel Nordic purchases guarantee of origin to obtain renewable energy for Mo i Rana facilities, where Steel billets and hot rolled are produced.

This electricity mix has been modelled using background inventory data from Ecoinvent 3.11, including electricity losses reported for Norway. The year of reference is 2024.

The carbon footprint (GWP-GHG) of the electricity mix used was calculated to be 0,0019 kg CO2 eq./kWh

Cut-off rules:

As general rule, according to the criteria of the reference standard 95% of the total inflows (mass and energy) used in the manufacturing process have been included in the LCA. In addition, at least 95% of the environmental impacts of each module have been considered.

There has been no exclusion of energy consumption.

Allocation rules applied:

In accordance with the criteria of the reference standard, the allocation of the inputs and outputs of the system has been used on an economic allocation. The economic allocation has been applied as per the difference in price per unit of mass between the product and the co-product is more than 25%. For by-products, economic allocation based on the relative revenues from the allocable products is applied. This allocation criterion has been applied for the general consumption of 7 Steel Nordic plant (consumption of raw materials and energy), emissions and discharges, and for waste.

The melt shop operates as a licensed waste manager, and scrap enters the facility as waste for recycling. The economic allocation to co-products across 7Steel plants is consistently very low (always below 1%). As a result, the environmental burden assigned to co-products—and consequently transferred to scrap entering the melt shop—is negligible. In line with PCR 2019:14, section 4.5.3, and given that the economic allocation percentages are well below the 5% threshold, no adjustment of the database or additional environmental burden for pre-consumer scrap is required.

The quantities of the different materials used and produced in the manufacturing process come from measurements taken in the plant itself.

The manufacture of the steel billets and hot-rolled steel products studied generates mill scale as a by-product.

Study exlusions:

The LCA did not include:

- All equipment with a useful life of more than 3 years, because it is considered capital equipment and its impact on the declared unit is insignificant.
- The construction of plant buildings and other capital assets.
- Staff business travel: nor staff travel to and from work.
- Research and development activities.
- Long-term emissions.
- Infrastructure processes from Eecoinvent datasets.

Environmental performance

LCA results of the product(s) - main environmental performance results

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). 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.

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP-GHG*	kg CO2 eq.	1,83E+02	2,00E+01	3,75E-01	2,45E+01	1,10E-01	2,63E-01	3,97E+02
GWP-total	kg CO2 eq.	1,82E+02	2,00E+01	3,75E-01	2,45E+01	1,10E-01	2,63E-01	3,97E+02
GWP-fossil	kg CO2 eq.	1,82E+02	2,00E+01	3,75E-01	2,45E+01	1,10E-01	2,63E-01	3,97E+02
GWP-biogenic	kg CO2 eq.	6,42E-02	8,15E-04	1,88E-05	8,52E-04	5,80E-04	5,78E-05	4,53E-02
GWP-luluc	kg CO2 eq.	2,63E-01	6,15E-04	1,54E-05	3,88E-04	1,69E-05	1,61E-05	6,14E-02
ODP	kg CFC 11 eq.	1,82E-06	3,24E-07	5,70E-09	5,57E-07	2,91E-09	4,04E-09	9,47E-07
AP	mol H+ eq.	7,44E-01	5,02E-01	3,46E-03	6,33E-02	7,10E-04	2,38E-03	1,34E+00
EP-freshwater	kg P eq.	7,70E-03	1,54E-05	3,53E-07	1,51E-05	2,13E-07	2,53E-07	1,28E-02
EP-	kg N eq.	1,84E-01	1,25E-01	1,63E-03	2,41E-02	3,30E-04	1,12E-03	2,78E-01
marine	kg N eq.	1,84E-01	1,25E-01	1,63E-03	2,41E-02	3,30E-04	1,12E-03	2,78E-01
EP-terrestrial	m ol N eq.	2,06E+00	1,39E+00	1,79E-02	2,64E-01	3,58E-03	1,23E-02	3,24E+00
POCP	kg NMVOC eq.	6,12E-01	3,78E-01	5,34E-03	1,05E-01	1,07E-03	3,67E-03	1,10E+00
ADP-minerals & metals[2]	kg Sb eq.	7,42E-05	2,42E-07	1,31E-08	6,39E-07	3,11E-08	9,10E-09	5,44E-05
ADP-fossil[2]	MJ	2,10E+03	2,52E+02	4,90E+00	3,26E+02	1,14E+01	3,44E+00	3,93E+03
WDP[2]	m3	1,56E+02	8,51E-02	4,02E-03	1,04E-01	5,85E-02	2,57E-03	2,66E+01

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

Additional mandatory and voluntary impact category indicators

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
PM	Disease Incidence	2,39E-05	6,87E-07	9,97E-08	1,63E-06	1,84E-08	6,98E-08	3,96E-05
IRP 1	kBq U235 eq.	1,11E+01	2,01E-02	4,07E-04	3,13E-02	2,90E-01	4,82E-04	9,49E-01
ETP-fw 2	CTUe	7,48E+02	8,39E+00	1,40E-01	1,17E+01	7,30E-02	9,91E-02	1,21E+03
HTP-c 2	CTUh	4,18E-07	2,60E-09	2,00E-11	1,65E-09	9,89E-12	1,47E-11	5,06E-07
HTP-nc 2	CTUh	8,78E-07	6,67E-08	3,68E-10	1,63E-07	2,84E-10	2,88E-10	8,23E-07
SQP 2	dimensionless	3,01E+02	3,24E-01	8,32E-03	4,14E-01	3,92E-01	4,23E+00	4,49E+02

* This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero

Acronyms:
PM = Particulate matter emissions; IRP= Ionising radiation. human health; ETP-fw: Ecotoxicity (freshwater); ETP-c: Human toxicity. cancer e ects; HTP-nc: Human toxicity. non-cancer e ects; SQP: Land use related impacts / soil quality

Disclaimer 1. This impact category primarily addresses the potential impacts of low doses of ionizing radiation on human health from the nuclear fuel cycle. It does not consider effects from potential nuclear accidents or occupational exposure due to radioactive waste disposal at underground facilities. The ionizing radiation potential of soil, due to radon or some building materials, is also not measured in this parameter.

Disclaimer 2. 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.

Resource use indicators

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
PERE	MJ	5,22E+03	5,02E-01	1,05E-02	8,01E-01	2,81E+01	2,02E+00	4,39E+01
PERM*	MJ	1,94E+01	0,00E+00	0,00E+00	0,00E+00	-1,75E+01	-1,94E+00	0,00E+00
PERT	MJ	5,24E+03	5,02E-01	1,05E-02	8,01E-01	1,06E+01	8,24E-02	4,39E+01
PENRE	MJ	2,70E+03	2,52E+02	4,90E+00	3,26E+02	4,09E+01	6,71E+00	3,93E+03
PENRM*	MJ	3,28E+01	0,00E+00	0,00E+00	0,00E+00	-2,95E+01	-3,28E+00	0,00E+00
PENRT	MJ	2,73E+03	2,52E+02	4,90E+00	3,26E+02	1,14E+01	3,44E+00	3,93E+03
SM	Kg	1,14E+03	0,00E+00	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	0,00E+00
NRSF	MJ	6,02E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	4,40E+01	4,71E-03	1,48E-04	6,31E-03	2,97E-02	1,25E-04	7,01E-01

* To calculate the primary energy indicators, the indications provided in PCR Annex 3, Option A, have been followed.

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

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste disposed	kg	5,44E-03	1,32E-03	3,36E-05	2,17E-03	9,18E-06	2,35E-05	4,56E-02
Non-hazardous waste disposed	kg	1,34E+01	5,42E-03	1,75E-04	1,10E-02	1,16E-03	9,99E+01	5,08E+00
Radioactive waste disposed	kg	7,49E-03	1,14E-05	2,29E-07	1,97E-05	1,51E-04	2,63E-07	6,02E-04

Output flow indicators

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	8,84E+03	0,00E+00	0,00E+00	0,00E+00	9,00E+02	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,51E+05	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	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	0,00E+00

Additional end-of-life scenarios

The following tables show the environmental impact of the end-of-life stages, if 100% of 1 ton of product is sent to a landfill, incinerated, or recycled.

Additional environmental information

End-of-life scenario with 100% recycling (per declared unit)

Indicator	Unit	C1	C2	C3	C4
GWP-GHG	kg CO2 eq.	3,75E-01	2,45E+01	1,22E-01	0
GWP-total	kg CO2 eq.	3,75E-01	2,45E+01	1,22E-01	0
GWP-fossil	kg CO2 eq.	3,75E-01	2,45E+01	6,45E-04	0
GWP-biogenic	kg CO2 eq.	1,88E-05	8,52E-04	5,84E-04	0
GWP-luluc	kg CO2 eq.	1,54E-05	3,88E-04	1,88E-05	0
ODP	kg CFC 11 eq.	5,70E-09	5,57E-07	3,23E-09	0
AP	mol H+ eq.	3,46E-03	6,33E-02	7,89E-04	0
EP-freshwater	kg P eq.	3,53E-07	1,51E-05	2,37E-07	0
EP-marine	kg N eq.	1,63E-03	2,41E-02	3,67E-04	0
EP-terrestrial	mol N eq.	1,79E-02	2,64E-01	3,98E-03	0
POCP	kg NMVOC eq.	5,34E-03	1,05E-01	1,19E-03	0
ADP-minerals&metals	kg Sb eq.	1,31E-08	6,39E-07	3,45E-08	0
ADP-fossil	MJ	4,90E+00	3,26E+02	1,27E+01	0
WDP	m3	4,02E-03	1,04E-01	6,50E-02	0

End-of-life scenario with 100% landfill (per declared unit)

Indicator	Unit	C1	C2	C3	C4
GWP-GHG	kg CO_2 eq.	3,75E-01	2,45E+01	0	2,63E+00
GWP-total	kg CO_2 eq.	3,75E-01	2,45E+01	0	2,63E+00
GWP-fossil	kg CO_2 eq.	3,75E-01	2,45E+01	0	5,78E-04
GWP-biogenic	kg CO_2 eq.	1,88E-05	8,52E-04	0	5,23E-04
GWP-luluc	kg CO_2 eq.	1,54E-05	3,88E-04	0	1,61E-04
ODP	kg CFC 11 eq.	5,70E-09	5,57E-07	0	4,04E-08
AP	mol H+ eq.	3,46E-03	6,33E-02	0	2,38E-02
EP-freshwater	kg P eq.	3,53E-07	1,51E-05	0	2,53E-06
EP-marine	kg N eq.	1,63E-03	2,41E-02	0	1,12E-02
EP-terrestrial	mol N eq.	1,79E-02	2,64E-01	0	1,23E-01
POCP	kg NMVOC eq.	5,34E-03	1,05E-01	0	3,67E-02
ADP-minerals&metals	kg Sb eq.	1,31E-08	6,39E-07	0	9,10E-08
ADP-fossil	MJ	4,90E+00	3,26E+02	0	3,44E+01
WDP	m3	4,02E-03	1,04E-01	0	2,57E-02

Additional environmental information

By-products

The manufacture of hot rolled steel products generates the following co-products, which are sold to third parties:

By-products	Kg per declared unit
Mill scale	7,39

Indoor air emissions

The manufacturer declares that steel billets does not generate indoor air emissions during its useful life.

Emissions to soil and water

The manufacturer declares that steel billets does not generate emissions to soil or water during its useful life.

Abbrevations

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
SVHC	Substances of Very High Concern
ND	Not Declared
EPD	Environmental Product Declaration
EUR	European Union
GLO	Global
LCA	Life Cycle Assessment
PCR	Product Category Rules
DQR	Data Quality Rating

References

A. PCR 2019:14 Construction products, version 2.0.1 Date 2025-06-05. Valid until: 2030-04-07

B. EN 15804:2012+A2:2019/AC:2021. Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products.

C. General Programme Instructions for the Internacional EPD® System. Version 5.0 (Date 2024-06-19)

D. Databases and methodologies of environmental impact applied through SimaPro 10.2.0.0.

E. UNE-EN ISO 14025:2010. Environmental labels and declarations. Type III environmental declarations. Principles and procedures (ISO 14025:2006).

F. UNE-EN ISO 14040:2006/A1:2021. Environmental management. Life cycle assessment. Principles and framework. Amendment 1 (ISO 14040:2006/Amd 1:2020).

G. UNE-EN ISO 14044:2006/A2:2021. Environmental management. Life cycle assessment. Requirements and guidelines. Amendment 2 (ISO 14044:2006/Amd 2:2020).

H. Life Cycle Assessment report for the Environmental Product Declarations for Steel Billets And Hot Rolled Steel Products Manufactured At 7 Steel Nordic by Abaleo S.L., February 2026. Version 1.

Version history

Original Version of the EPD, 2021-11-09
Revision 1 EPD version : 2022-11-03

Changes from original EPD version: In the EPD published in 2021 (based on production year 2020), products alloyed with ferro vanadium (FeV) and ferro niob (FeNb) were not covered. In this new version of EPD the product including ferro vanadium (FeV) and ferro niob (FeNb) are included in the EPD for CELSA Armeringsstål. The Cut off method have been utilized to secure this change. The amount of FeV corresponds to 0.003% and the FeNb to 0.004% (% of total raw materials). At a meeting with the verifier it was concluded that this can be considered as negligible.

Revision 2: 2026-03-12

Differences between the EPD and previous versions

- Change in the allocation methodology in accordance with PCR 2019:14 v2.0.1.
- The methodology has been updated from EF 3.0 to EF 3.1.
- Ecoinvent database has been updated from v3.7 to v3.11.
- Software has been changed from GaBi (Sphera Solutions GmbH) to SimaPro 10.2.0.0.
- PCR version has been changed to 2019:14 v2.0.1
- Updated from 2022 to 2024 data.
- The EPD is only used for hot rolled. Steel billets has a separate EPD

VERIFICATION STATEMENT CERTIFICATE

CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD014901

CERTINALIA S.L.U., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:
CERTINALIA S.L.U., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

7 STEEL NORDIC MANUFACTURING AS
Postboks 500, Mo Industripark
8601 Mo i Rana (Norway)

for the following product(s):
para el siguiente(s) producto(s):

Hot rolled steel Norwegian production
Acero laminado en caliente producido en Noruega

with registration number **EPD-IES-0004910** in the International EPD® System *(www.environdec.com).*
*con número de registro **EPD-IES-0004910** en el Sistema International EPD® (www.environdec.com).*

it´s in conformity with:
es conforme con:

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **General Programme Instructions for the International EPD® System v5**
- **PCR 2019:14 Construction products (EN 15804:A2) v2.0**
- **UN CPC 4124 Bars and rods, hot-rolled, of iron or steel.**

Issued date / *Fecha de emisión:*	09/03/2026
Update date / *Fecha de actualización:*	09/03/2026
Serial Nº / *Nº Serie:*	EPD1490100-E

Carlos Nazabal Alsua
Manager

ENAC
CERTIFICACIÓN
ISO 17065
Nº125 / C-PR283

The validity of this certificate is subject to the validity of its related EPD.
La validez de este certificado está sujeta a la vigencia de su correspondiente EPD.

This certificate is subject to modifications, temporary suspensions and withdrawals by CERTINALIA.
El presente certificado está sujeto a modificaciones, suspensiones temporales y retiradas por CERTINALIA.

The validity of this certificate can be checked through consultation in www.certinalia.com.
El estado de vigencia del certificado puede confirmarse mediante consulta en www.certinalia.com.

STEEL

EPD
INTERNATIONAL EPD SYSTEM

ECO PLATFORM
EPD
VERIFIED