Environmental Product Declaration
In accordance with ISO 14025 and EN 15804

Light gauge steel profiles and components

Programme:	The International EPD® System
Programme operator:	EPD International AB
EPD registration number:	S-P-00537
Publication date/Issue date	2015-09-15
Revision date:	2020-09-15
Valid until:	2025-07-03

EPD®

ECO PLATFORM EPD EN 15804 VERIFIED

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EUROPROFIL

making room for tomorrow

Company information

Owner of the EPD:
Europrofil AB

Description of the organisation:
The company Europrofil AB, founded 1982, is a leading producer of light gauge steel profiles for the building construction industry. Our headquarters and production site are located in Nora, Sweden, from where products are distributed throughout the Nordic market.

Europrofil is, since 2006, included in the Danish industrial group Ib Andresen Industries A/S, IAI. Europrofil is the sole supplier in the Nordic market that exclusively focus on light gauge steel building systems and to develop these systems and solutions on the absolute best level. The range of light gauge steel building systems are custom designed for internal and external walls, internal and external ceilings, internal floors and sub-floors. The guiding principles behind Europrofil's work are the overall construction economy as well as the construction environmental performance throughout the entire life cycle of the construction. Our customers should, seen in a holistic way, always benefit from selecting Europrofil's solutions.

In short, Europrofil's ambition is to develop tomorrow's systems of light gauge steel building systems, something we communicate through the expression Making room for tomorrow!

Name and location of production site:
Europrofil AB, Industrivägen 9, S-713 23 NORA, Sweden

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Product information

Product name:
Light gauge steel profiles and components for internal and external walls, internal and external ceilings and internal floors and sub-floors.

Product identification:
The table below presents the steel grades relevant for the steel profiles and components covered by this EPD. The steel grades are expressed according to the standard EN 10027 where e.g. S250GD+Z140 designates a structural steel (S) with a specified yield strength of 250 MPa (250) and a surface layer of 140 g plain zinc per square meter (Z140).

Reference number, Steel	1	2	5	6	7
Steel grade	S250GD+Z140	S350GD+Z275	S250GD+ZM310	S350GD+ZM310	S350GD+Z140
Manufactured in accordance with European standard	SS-EN 10346:2015				
Corrosion class	C1	C2	C5	C5	C1
Product uses	Material of 0.46-0.7 mm mm thickness for use in steel profiles for interior walls and ceilings.	Material of 0.7-3.0 mm for use in profiles and components for external walls and light weight steel beams	Products for use in external environments with greater demands on corrosion protection.	Products for use in external environments with greater demands on corrosion protection.	Steel plates used for burglar protection.

Product description:
Europrofil's products are mainly roll formed from hot dip galvanized steel with different surface treatment to obtain requested corrosion protection properties. Europrofil systems and products are light gauge steel profiles and components for internal and external walls, internal and external ceilings and internal floors and sub-floors.

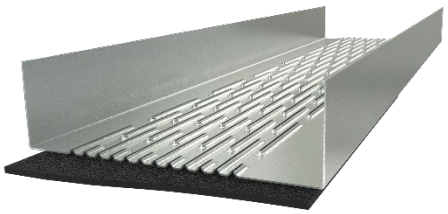
Europrofil products are made of different steel grades and different surface treatments. Products used in internal walls and ceilings have a surface layer of 140 g zinc per square meter, steel no 1, and products used in external walls are manufactured from steel coated with a minimum of 275 g zinc per square meter, steel no 2. Products intended for use outside of a constructions shelter or in humid conditions are manufactured from steel with a minimum coating of of 310 g zinc/aluminium/magnesium per square meter, Steel 5. For each steel grade there are several steel thicknesses required to cover the different products.

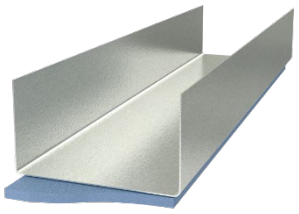
Product additions
Different types of additions can be added to enhance the properties of the products. The most common addition is to add different types of sealing materials to improve the sound reduction properties of the finished product. The addition of plywood is a commonly used solution to improve the stability and fastening properties of the profiles. All profiles are bundled and strapped with plastic straps and wooden spacers.

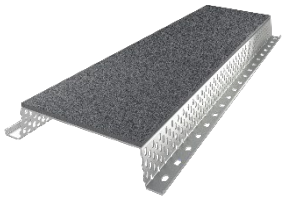
Products included in the EPD

Roll formed profiles and other components produced from the steel grades presented in the table below, with or without the addition of sealing material or plywood are included in the LCA presented in this EPD. A list of all products included is presented on Europrofil website including information regarding the products weight to simplify the calculation of the one article's unique environmental impact.

Steel no.	Steel grade	Thickness
Steel 1a	S250GD+Z140	0,46
Steel 1b		0,5
Steel 1c		0,6
Steel 1d		0,56
Steel 1e		0,7
Steel 2a	S350GD+Z275	0,7
Steel 2b		1,0
Steel 2c		1,2
Steel 2d		1,5
Steel 2e		2,0
Steel 2f		2,5
Steel 2g		3,0
Steel 5a	S250GD+ZM310	0,7
Steel 5b		1,0
Steel 5c		0,5
Steel 6a	S350GD+ZM310	0,6
Steel 6b		1,5
Steel 6c		2,0
Steel 6d		3,0
Steel 7a	S350GD+Z140	1,0
Steel 7b		2,0

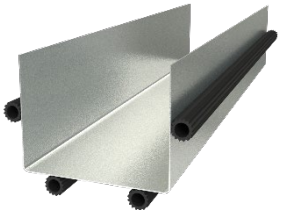






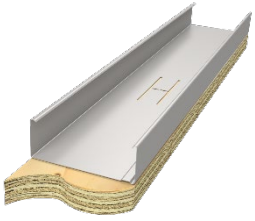
UN CPC code:

CPC 4219 Other structures (except prefabricated buildings) and parts of structures, of iron, steel or aluminium; plates, rods, angles, shapes, sections, profiles, tubes and the like, prepared for use in structures, of iron, steel or aluminium; props and similar equipment for scaffolding, shuttering or pit propping



Geographical scope:

Europe



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LCA information

Declared unit:
The declared unit is set to **1 ton** of light gauge steel profiles or components.

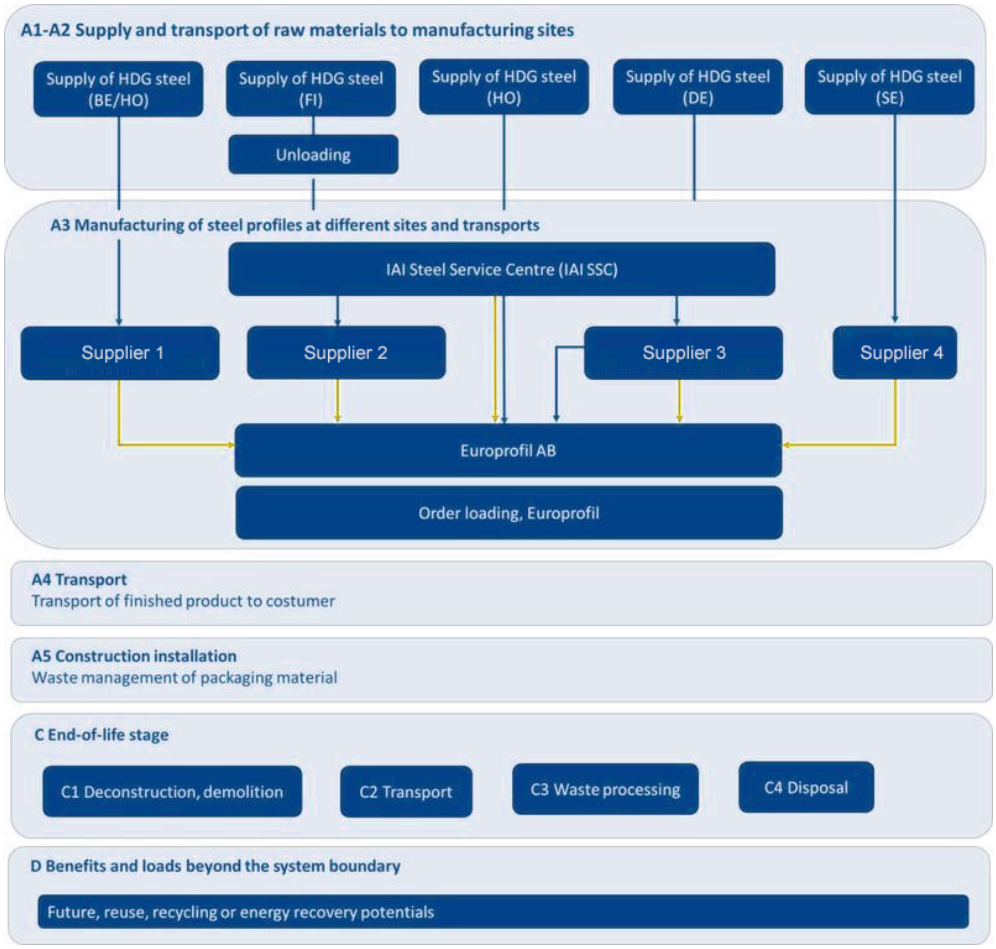
Profiles are normally sold in meters or weight. It is considered easier to perform calculations of a products environmental impact throughout its weight.

Reference service life:
The expected service life is 50 years.

Time representativeness:
The data used to model product manufacturing corresponds to 2019. The data from generic databases are from 2011 – 2018. No data used is older than 10 years.

Database(s) and LCA software used:
Databases used are mainly from Thinkstep´s own database from 2019. The LCA software used is GaBi version 9.2, service pack 40.

System diagram:



Description of system:
Cradle to gate with module C1-C4, module D and with optional modules. The life cycle stages included are described in the table below:

Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
Raw material	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction, demolition	Transport	Waste processing	Disposal	Reuse, recycling or energy recovery potentials
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
D	D	D	D	ND	ND	ND	ND	ND	ND	ND	ND	ND	D	D	D	D

D: Module declared
ND: Module not declared

Allocation:
The co-products from the factory of steel profiles (A3) were allocated using factors based on physical relationships (produced quantities in mass), since the difference in revenue is low. No other by-products are produced besides steel profiles. For the upstream steel production process (A1), all the impacts from the steel mill was allocated to the steel as a conservative approach.

Scenarios:
The analysis is carried out using factory-specific data for use of energy and utilities and waste generation, as well as product-specific data for use of raw materials. Therefore, the results represent the product system and no other scenarios were applied.

Data quality:
Site-specific production data has been retrieved for 2019 from the production site. The upstream and downstream processes have been modelled based on data from generic databases, mostly Thinkstep (now Sphera) database. The collected data was reviewed in terms of consistency, and it is deemed as good quality.

Cut-off criteria:
The study applies a cut-off criterion of maximum 1%.

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Modelling of transportation modules:
Three types of transportation processes are included in this LCA study; the transport of raw materials and its packaging to the production sites (A2), the transport of the final products to the customers (A4) and the transport of waste materials from the production sites to the disposal (C2). The following table presents the transport scenarios applied and the modelling assumptions:

Transport module	Transport mode	Average distance (km)	Capacity utilization (%)
Suppliers to manufacturing (A2)	40-ton, EURO6 diesel truck	140	50%
	Electric train	750	70%
	Boat	1100	70%
Manufacturing to costumer (A4)	20-ton, EURO6 diesel truck	190	43%
Customer to waste management (C2)	20-ton, EURO5 diesel truck	150	50%

Modelling of product manufacturing (A3):
The steel produced in upstream modules is roll-formed from rolls of slitted steel in various widths, thicknesses, steel qualities and surface treatments. The basic product is a roll formed profile made of steel, which are for the most part manufactured at Europrofil's factory. In some cases, specific process steps take place at supplier's sites, depending on the final form of the product. The transport between sites is also included in this EPD.

The production process consists of the energy (electricity) and heat flows needed during the production process as well as the energy demands (electricity or diesel) for auxiliary process such as loading/unloading performed by forklifts. Electricity and heat are used at the production site. The electricity is obtained from the grid, which has been modelled using the Swedish residual electricity grid mix in the Thinkstep / Sphera database. The heat is supplied by district heating, so data for Swedish district heating from Thinkstep / Sphera was used.

The only direct emissions at the production site correspond to the diesel-powered forklifts. No water use was reported or accounted for. The waste streams from the manufacturing sites include steel scrap and packing straps (to recycling) and wood and plastic waste (to incineration for energy recovery).

Modelling of End-Of-Life (C1-C4):
The impacts from deconstruction were modelled based on literature data for energy use in demolition, accounting for 0,085 kwh of diesel-powered machinery work per kg of steel deconstructed. The following end-of-life scenario has been applied:

Scenario	% of waste	Source for scenario
Recycling, waste processing at treatment plant. (C3)	95%	Assumption
Disposal, at inert construction waste landfill (C4)	5%	Assumption

Modelling of benefits beyond End-Of-Life (D):
For module D, the benefits from the recycling waste are presented. The steel recycled is credited with the avoided production of the raw material they would be displacing in the technosphere if recycled. A loss factor of 97 % was applied to the benefits from the recycling waste streams since losses exits in the recycling process. The following are the assumptions made for this substitution:

Parameter	Source	Value used
R2 – Departure of recovered material (in kg/kg)	Assumption, as applied in C1	0.95
R1 - Use of recovered material (in kg/kg)	Data from the share of secondary material use in A1-A3	0.18
Erecycled – Environmental load of recycling	Ecoinvent 3.4 (2017): Treatment of waste reinforcement steel, recycling	NG
E*V – Environmental load of primary product	Ecoinvent 3.4 (2017): cast iron production	NG
Qs/Qp – Quality of secondary material/Quality of primary material	Assumption	1

Key estimates and assumptions:
The most relevant assumptions for the LCA are:

- Manufacturing of equipment and infrastructure were not included.
- For the upstream steel production, 2,6% of the scrap use is assumed to be external scrap, while the rest is internal scrap. This assumption has been made since the data source only presents the total use of steel scrap without distinguishing between internal and external scrap. In order to calculate the category “Use of secondary material” and the module D correctly, only external scrap should be accounted for. This is considered a conservative approach since the alternative would be to account all scrap use as external scrap use, while this is most probably not the reality.
- The scenarios and assumptions applied in this study for all the life cycle stages included are based on data provided by Europrofil and correspond to the most likely scenario.

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Content declaration

Material content:
No substances that appear in the REACH candidate list of SVHC (Candidate List of Substances of Very High Concern) are present or used in the product concerning this EPD.

The products are for the most part made of steel; with zinc, aluminium and magnesium contents depending on the steel grade. The table below presents specific material content for each grade included in the EPD:

Steel grade	Steel content (%)	Zinc content (%)	Aluminum content (%)	Magnesium content (%)
Steel 1a	96%	4%	-	-
Steel 1b	97%	3%	-	-
Steel 1c	97%	3%	-	-
Steel 1d	97%	3%	-	-
Steel 1e	98%	2%	-	-
Steel 2a	95%	5%	-	-
Steel 2b	97%	3%	-	-
Steel 2c	97%	3%	-	-
Steel 2d	98%	2%	-	-
Steel 2e	98%	2%	-	-
Steel 2f	99%	1%	-	-
Steel 2g	99%	1%	-	-
Steel 5a	94.7%	5.0%	0.2%	0.2%
Steel 5b	96.2%	3.6%	0.1%	0.1%
Steel 5c	92.7%	6.8%	0.3%	0.2%
Steel 6a	100%	-	-	-
Steel 6b	97.4%	2.4%	0.1%	0.1%
Steel 6c	98.1%	1.8%	0.1%	0.1%
Steel 6d	98.7%	1.22%	0.04%	0.04%
Steel 7a	98%	2%	-	-
Steel 7b	99%	1%	-	-

Packaging:
The product is transported to the customers on wood spacers, with plastic straps.

Recycled material:
A share of 18% of the steel content in the products corresponds to post-consumer scrap.

Environmental performance for Steel 1a, S250GD+Z140, t=0,46 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.58E+03	2.55E+03	5.44E+01	-2.83E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.60E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.61E+03	2.54E+03	5.40E+01	1.94E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.60E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.25E+01	5.34E+00	-7.29E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	2.00E-04
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.21E+00	7.10E-01	4.00E-01	1.03E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	7.50E-05
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.61E+03	2.54E+03	5.45E+01	1.94E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	-1.60E+00
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.89E-14	2.73E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.40E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.40E+00	7.10E+00	1.80E-01	1.24E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.50E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.65E-03	2.23E-03	1.55E-04	2.65E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.70E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.87E+00	1.77E+00	4.72E-02	5.09E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.20E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.02E+01	1.91E+01	5.32E-01	5.30E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.30E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.50E+00	5.23E+00	1.32E-01	1.33E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.60E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.41E-01	1.41E-01	4.16E-06	5.31E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.50E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.09E+04	2.96E+04	7.27E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.30E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-6.35E+01	-6.90E+01	8.67E-01	4.63E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.20E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.64E+03	1.79E+03	5.19E+01	7.98E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.00E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.64E+03	1.79E+03	5.19E+01	7.98E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.00E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.09E+04	2.96E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.30E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.09E+04	2.96E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.30E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	7.30E-01	3.72E-01	6.02E-02	2.98E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.80E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.52E+01	3.04E-05	7.12E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.74E+01	7.70E+01	1.28E-01	2.53E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.59E-01	5.24E-01	6.03E-03	1.30E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.70E+01	0E+00	0E+00	2.70E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 1b, S250GD+Z140, t=0,5 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.57E+03	2.54E+03	5.38E+01	-2.81E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.61E+03	2.54E+03	5.34E+01	1.96E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.25E+01	5.33E+00	-7.19E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.21E+00	7.07E-01	3.95E-01	1.03E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.61E+03	2.53E+03	5.39E+01	1.97E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.88E-14	2.92E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.38E+00	7.08E+00	1.79E-01	1.24E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.62E-03	2.20E-03	1.53E-04	2.67E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.86E+00	1.76E+00	4.70E-02	5.07E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.01E+01	1.90E+01	5.30E-01	5.28E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.49E+00	5.23E+00	1.32E-01	1.33E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.32E-01	1.32E-01	4.12E-06	5.53E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.09E+04	2.96E+04	7.19E+02	5.55E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-6.70E+01	-7.26E+01	8.62E-01	4.73E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.61E+03	1.75E+03	5.15E+01	8.07E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.61E+03	1.75E+03	5.15E+01	8.07E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.09E+04	2.96E+04	7.20E+02	5.55E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.09E+04	2.96E+04	7.20E+02	5.55E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	6.82E-01	3.07E-01	5.97E-02	3.15E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.53E+01	6.53E+01	3.00E-05	7.14E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.72E+01	7.68E+01	1.27E-01	2.56E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.60E-01	5.12E-01	6.02E-03	1.42E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.70E+01	0E+00	0E+00	2.70E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 1c, S250GD+Z140, t=0,6 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.56E+03	2.53E+03	5.44E+01	-2.83E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.59E+03	2.52E+03	5.40E+01	1.94E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.26E+01	5.28E+00	-7.29E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.20E+00	6.96E-01	4.00E-01	1.03E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.60E+03	2.52E+03	5.45E+01	1.94E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.89E-14	2.73E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.32E+00	7.02E+00	1.80E-01	1.24E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.55E-03	2.13E-03	1.55E-04	2.65E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.85E+00	1.75E+00	4.72E-02	5.09E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.00E+01	1.89E+01	5.32E-01	5.30E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.47E+00	5.20E+00	1.32E-01	1.33E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.11E-01	1.11E-01	4.16E-06	5.31E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.06E+04	2.93E+04	7.27E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-7.54E+01	-8.09E+01	8.67E-01	4.63E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.50E+03	1.65E+03	5.19E+01	7.98E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.50E+03	1.65E+03	5.19E+01	7.98E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.06E+04	2.93E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.06E+04	2.93E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	5.12E-01	1.54E-01	6.02E-02	2.98E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.52E+01	3.04E-05	7.12E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.65E+01	7.61E+01	1.28E-01	2.53E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.21E-01	4.85E-01	6.03E-03	1.30E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.70E+01	0E+00	0E+00	2.70E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 1d, S250GD+Z140, t=0,56 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.56E+03	2.53E+03	5.44E+01	-2.83E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.60E+03	2.53E+03	5.40E+01	1.94E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.26E+01	5.30E+00	-7.29E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.20E+00	7.00E-01	4.00E-01	1.03E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.60E+03	2.52E+03	5.45E+01	1.86E-04	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.89E-14	2.73E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.34E+00	7.04E+00	1.80E-01	1.24E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.58E-03	2.16E-03	1.55E-04	2.65E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.86E+00	1.76E+00	4.72E-02	5.09E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.01E+01	1.90E+01	5.32E-01	5.30E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.48E+00	5.21E+00	1.32E-01	1.33E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.18E-01	1.18E-01	4.16E-06	5.31E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.07E+04	2.94E+04	7.27E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-7.24E+01	-7.79E+01	8.67E-01	4.63E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.54E+03	1.69E+03	5.19E+01	7.98E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.54E+03	1.69E+03	5.19E+01	7.98E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.07E+04	2.94E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.07E+04	2.94E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	5.67E-01	2.09E-01	6.02E-02	2.98E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.52E+01	6.52E+01	7.12E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.67E+01	7.63E+01	7.67E+01	2.53E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.30E-01	4.94E-01	6.30E-01	1.30E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.70E+01	0E+00	0E+00	2.70E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 1e, S250GD+Z140, t=0,7 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.53E+03	2.52E+03	3.59E+01	-2.21E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.57E+03	2.51E+03	3.57E+01	2.57E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.26E+01	5.25E+00	-4.15E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.04E+00	6.88E-01	2.51E-01	1.05E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.57E+03	2.51E+03	3.59E+01	2.57E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.22E-10	4.66E-14	7.99E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.25E+00	6.97E+00	1.61E-01	1.17E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.48E-03	2.08E-03	9.90E-05	3.02E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.84E+00	1.75E+00	4.19E-02	4.42E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	1.97E+01	1.88E+01	4.68E-01	4.49E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.41E+00	5.17E+00	1.17E-01	1.24E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	9.59E-02	9.59E-02	2.84E-06	1.19E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.10E+04	2.91E+04	4.82E+02	1.43E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-7.88E+01	-8.68E+01	7.02E-01	7.29E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.64E+03	1.58E+03	3.81E+01	1.03E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.64E+03	1.58E+03	3.81E+01	1.03E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.10E+04	2.91E+04	4.83E+02	1.43E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.10E+04	2.91E+04	4.83E+02	1.43E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	9.05E-01	4.33E-02	4.42E-02	8.18E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.51E+01	6.51E+01	1.90E-05	7.00E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.60E+01	7.56E+01	9.07E-02	3.27E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	9.51E-01	4.64E-01	5.72E-03	4.81E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.52E+01	0E+00	0E+00	2.52E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 2a, S350GD+Z275, t=0,7 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.60E+03	2.57E+03	5.44E+01	-2.83E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.64E+03	2.57E+03	5.40E+01	1.94E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.24E+01	5.41E+00	-7.29E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.23E+00	7.30E-01	4.00E-01	1.03E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.64E+03	2.56E+03	5.45E+01	1.94E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.89E-14	2.73E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.50E+00	7.20E+00	1.80E-01	1.24E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.78E-03	2.36E-03	1.55E-04	2.65E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.88E+00	1.78E+00	4.72E-02	5.09E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.03E+01	1.92E+01	5.32E-01	5.30E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.55E+00	5.28E+00	1.32E-01	1.33E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.81E-01	1.81E-01	4.16E-06	5.31E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.14E+04	3.01E+04	7.27E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-4.71E+01	-5.26E+01	8.67E-01	4.63E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.83E+03	1.98E+03	5.19E+01	7.98E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.83E+03	1.98E+03	5.19E+01	7.98E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.14E+04	3.01E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.14E+04	3.01E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0.00E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	1.03E+00	6.70E-01	6.02E-02	2.98E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.52E+01	3.04E-05	7.12E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.84E+01	7.81E+01	1.28E-01	2.53E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	7.13E-01	5.77E-01	6.03E-03	1.30E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.70E+01	0E+00	0E+00	2.70E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 2b, S350GD+Z275, t=1,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.58E+03	2.55E+03	5.37E+01	-2.66E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.62E+03	2.55E+03	5.34E+01	2.11E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.25E+01	5.34E+00	-7.19E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.22E+00	7.08E-01	3.95E-01	1.14E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.62E+03	2.54E+03	5.38E+01	2.12E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.85E-14	2.92E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.41E+00	7.10E+00	1.80E-01	1.27E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.64E-03	2.20E-03	1.53E-04	2.84E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.87E+00	1.77E+00	4.74E-02	5.16E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.02E+01	1.91E+01	5.34E-01	5.37E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.51E+00	5.24E+00	1.33E-01	1.35E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.30E-01	1.30E-01	4.11E-06	5.70E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.10E+04	2.97E+04	7.19E+02	5.75E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-6.81E+01	-7.38E+01	8.58E-01	4.82E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.62E+03	1.75E+03	5.13E+01	8.18E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.62E+03	1.75E+03	5.13E+01	8.18E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.10E+04	2.97E+04	7.20E+02	5.75E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.10E+04	2.97E+04	7.20E+02	5.75E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.68E+01	2.68E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	6.73E-01	2.92E-01	5.95E-02	3.22E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.55E+01	6.55E+01	3.00E-05	7.85E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.74E+01	7.70E+01	1.27E-01	2.71E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.60E-01	5.11E-01	5.98E-03	1.43E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	3.24E+01	0E+00	0E+00	3.24E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 2c, S350GD+Z275, t=1,2 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.56E+03	2.53E+03	5.30E+01	-2.73E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.59E+03	2.52E+03	5.27E+01	2.05E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.26E+01	5.28E+00	-7.09E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.19E+00	6.95E-01	3.89E-01	1.11E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.59E+03	2.52E+03	5.31E+01	2.05E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.23E-10	1.23E-10	4.69E-14	2.75E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.32E+00	7.01E+00	1.80E-01	1.27E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.54E-03	2.12E-03	1.51E-04	2.69E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.85E+00	1.75E+00	4.73E-02	5.19E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.00E+01	1.89E+01	5.33E-01	5.42E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.46E+00	5.19E+00	1.33E-01	1.35E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.09E-01	1.09E-01	4.05E-06	5.39E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.05E+04	2.93E+04	7.09E+02	5.40E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-7.62E+01	-8.17E+01	8.37E-01	4.65E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.49E+03	1.64E+03	5.03E+01	7.99E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.49E+03	1.64E+03	5.03E+01	7.99E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.05E+04	2.93E+04	7.10E+02	5.40E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.05E+04	2.93E+04	7.10E+02	5.40E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	4.99E-01	1.40E-01	5.83E-02	3.00E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.52E+01	2.96E-05	7.72E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.65E+01	7.61E+01	1.25E-01	2.56E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.19E-01	4.82E-01	5.79E-03	1.31E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.68E+01	0E+00	0E+00	2.68E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 2d, S350GD+Z275, t=1,5 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.54E+03	2.51E+03	4.82E+01	-2.21E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.58E+03	2.51E+03	4.79E+01	2.56E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.26E+01	5.24E+00	-5.48E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.17E+00	6.85E-01	3.41E-01	1.44E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.58E+03	2.50E+03	4.83E+01	2.57E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.22E-10	1.22E-10	8.48E-14	3.70E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.26E+00	6.96E+00	1.65E-01	1.33E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.49E-03	2.06E-03	1.36E-04	2.94E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.84E+00	1.74E+00	4.30E-02	5.37E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	1.98E+01	1.88E+01	4.84E-01	5.60E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.43E+00	5.17E+00	1.21E-01	1.40E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	8.85E-02	8.85E-02	4.10E-06	6.90E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.04E+04	2.90E+04	6.52E+02	7.57E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-8.37E+01	-9.00E+01	1.16E+00	5.18E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.45E+03	1.54E+03	5.93E+01	8.49E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.45E+03	1.54E+03	5.93E+01	8.49E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.05E+04	2.91E+04	6.53E+02	7.57E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.05E+04	2.91E+04	6.53E+02	7.57E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	4.52E-01	-1.50E-02	6.87E-02	3.99E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.68E+01	2.64E-05	1.01E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.59E+01	7.74E+01	1.37E-01	2.84E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.57E-01	4.65E-01	1.06E-02	1.94E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.64E+01	0E+00	0E+00	2.64E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 2e, S350GD+Z275, t=2,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.59E+03	2.56E+03	3.72E+01	-7.83E+00	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.63E+03	2.55E+03	3.70E+01	3.97E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.25E+01	5.33E+00	-4.25E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.19E+00	6.90E-01	2.57E-01	2.42E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.63E+03	2.55E+03	3.72E+01	4.00E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.25E-10	1.25E-10	4.36E-14	4.08E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.41E+00	7.06E+00	1.86E-01	1.63E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.52E-03	2.03E-03	1.01E-04	3.88E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.89E+00	1.78E+00	4.83E-02	6.48E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.04E+01	1.92E+01	5.38E-01	6.78E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.56E+00	5.26E+00	1.35E-01	1.64E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	6.92E-02	6.92E-02	2.87E-06	8.60E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.10E+04	2.95E+04	4.97E+02	1.00E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-9.45E+01	-1.01E+02	6.78E-01	5.85E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.43E+03	1.47E+03	3.76E+01	9.25E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.05E-10	1.05E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.43E+03	1.47E+03	3.76E+01	9.25E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.10E+04	2.95E+04	4.98E+02	1.00E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.05E-10	1.05E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.10E+04	2.95E+04	4.98E+02	1.00E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.73E+01	2.73E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.05E-10	1.05E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.05E-10	1.05E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	3.39E-01	-1.78E-01	4.36E-02	4.73E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.67E+01	6.67E+01	1.95E-05	1.72E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.71E+01	7.66E+01	9.13E-02	3.85E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	6.59E-01	4.32E-01	5.35E-03	2.22E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	5.02E+01	0E+00	0E+00	5.02E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 2f, S350GD+Z275, t=2,5 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.50E+03	2.48E+03	2.40E+01	-3.42E+00	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.54E+03	2.47E+03	2.39E+01	4.41E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.27E+01	5.16E+00	-2.67E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.10E+00	6.65E-01	1.56E-01	2.83E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.54E+03	2.47E+03	2.40E+01	4.44E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.22E-10	1.22E-10	2.76E-15	2.97E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.22E+00	6.84E+00	2.00E-01	1.81E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.32E-03	1.93E-03	5.96E-05	3.34E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.85E+00	1.72E+00	5.14E-02	7.46E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.00E+01	1.86E+01	5.69E-01	7.95E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.43E+00	5.10E+00	1.44E-01	1.81E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	5.48E-02	5.48E-02	1.50E-06	7.28E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	2.97E+04	2.85E+04	3.13E+02	8.87E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-9.79E+01	-1.03E+02	1.81E-01	4.95E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.22E+03	1.37E+03	1.46E+01	8.34E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.02E-10	1.02E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.22E+03	1.37E+03	1.46E+01	8.34E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	2.97E+04	2.85E+04	3.14E+02	8.87E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.02E-10	1.02E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	2.97E+04	2.85E+04	3.14E+02	8.87E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.66E+01	2.66E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.02E-10	1.02E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.02E-10	1.02E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	1.01E-01	-2.72E-01	1.70E-02	3.56E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.49E+01	6.49E+01	1.19E-05	2.09E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.46E+01	7.42E+01	4.51E-02	3.34E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	5.48E-01	4.01E-01	3.81E-04	1.47E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.20E+01	0E+00	0E+00	2.20E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 2g, S350GD+Z275, t=3,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.53E+03	2.50E+03	2.69E+01	2.97E+00	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.57E+03	2.49E+03	2.68E+01	5.06E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.26E+01	5.20E+00	2.13E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.09E+00	6.69E-01	1.24E-01	3.00E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.57E+03	2.49E+03	2.69E+01	5.08E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.24E-10	1.23E-10	2.79E-13	8.68E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.14E+00	6.89E+00	8.57E-02	1.62E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.44E-03	1.93E-03	7.37E-05	4.37E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.82E+00	1.74E+00	2.13E-02	6.07E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	1.97E+01	1.88E+01	2.34E-01	6.27E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.37E+00	5.15E+00	5.93E-02	1.61E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	4.69E-02	4.69E-02	4.62E-06	1.47E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.10E+04	2.87E+04	4.10E+02	1.87E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-9.71E+01	-1.08E+02	2.87E+00	8.04E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.57E+03	1.34E+03	1.08E+02	1.12E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.57E+03	1.34E+03	1.08E+02	1.12E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.10E+04	2.87E+04	4.10E+02	1.87E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.10E+04	2.87E+04	4.10E+02	1.87E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.69E+01	2.69E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	7.05E-01	-3.37E-01	1.25E-01	9.17E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.56E+01	6.56E+01	8.20E-06	2.14E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	6.56E+01
Non-hazardous waste disposed, NHWD	kg	7.54E+01	7.48E+01	1.86E-01	4.37E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	7.54E+01
Radioactive waste disposed, RWD	kg	9.55E-01	3.95E-01	3.39E-02	5.27E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	9.55E-01

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	3.36E+01	0E+00	0E+00	3.36E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 5a, S250GD+ZM310, t=0,7 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.98E+03	2.93E+03	5.31E+01	-2.24E+00	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	3.02E+03	2.92E+03	5.28E+01	4.53E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.18E+01	6.02E+00	-6.87E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.49E+00	8.39E-01	3.85E-01	2.68E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	3.02E+03	2.92E+03	5.32E+01	4.55E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	2.75E-10	2.74E-10	5.32E-14	7.92E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	8.63E+00	8.25E+00	1.91E-01	1.89E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	3.53E-03	2.66E-03	1.50E-04	7.23E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	2.14E+00	2.02E+00	5.01E-02	7.25E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.31E+01	2.18E+01	5.64E-01	7.15E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	6.30E+00	5.98E+00	1.40E-01	1.83E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	2.09E-01	2.09E-01	4.10E-06	1.50E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.65E+04	3.41E+04	7.11E+02	1.67E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-2.81E+01	-3.88E+01	8.96E-01	9.80E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	3.77E+03	2.39E+03	5.22E+01	1.32E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.13E-10	1.13E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	3.77E+03	2.39E+03	5.22E+01	1.32E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.65E+04	3.41E+04	7.12E+02	1.67E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.13E-10	1.13E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.65E+04	3.41E+04	7.12E+02	1.67E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.95E+01	2.95E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.13E-10	1.13E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.13E-10	1.13E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	2.34E+00	1.36E+00	6.05E-02	9.22E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	7.20E+01	7.20E+01	2.93E-05	1.65E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	9.47E+01	9.39E+01	1.28E-01	6.82E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	1.15E+00	6.69E-01	6.55E-03	4.79E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	1.38E+02	0E+00	0E+00	1.38E+02	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 5b, S250GD+ZM310, t=1,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.97E+03	2.91E+03	5.59E+01	1.21E+00	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	3.00E+03	2.90E+03	5.55E+01	4.87E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.18E+01	6.00E+00	-7.32E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.52E+00	8.15E-01	4.07E-01	2.98E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	3.01E+03	2.90E+03	5.60E+01	4.90E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	2.38E-10	2.37E-10	5.34E-14	7.73E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	8.54E+00	8.14E+00	1.97E-01	2.02E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	3.45E-03	2.50E-03	1.58E-04	7.90E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	2.14E+00	2.01E+00	5.17E-02	7.76E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.30E+01	2.17E+01	5.82E-01	7.66E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	6.31E+00	5.97E+00	1.45E-01	1.94E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	1.52E-01	1.52E-01	4.29E-06	1.53E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.61E+04	3.37E+04	7.48E+02	1.68E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-5.73E+01	-6.83E+01	9.19E-01	1.01E+01	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	3.52E+03	2.10E+03	5.41E+01	1.37E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.15E-10	1.15E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	3.52E+03	2.10E+03	5.41E+01	1.37E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.61E+04	3.37E+04	7.48E+02	1.68E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.15E-10	1.15E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.61E+04	3.37E+04	7.48E+02	1.68E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.99E+01	2.99E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.15E-10	1.15E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.15E-10	1.15E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	1.76E+00	7.77E-01	6.28E-02	9.23E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	7.31E+01	7.31E+01	3.10E-05	1.83E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	9.23E+01	9.15E+01	1.33E-01	7.37E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	1.07E+00	5.94E-01	6.58E-03	4.66E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	1.55E+02	0E+00	0E+00	1.55E+02	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 5c, S250GD+ZM310, t=0,5 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.72E+03	2.71E+03	3.43E+01	-2.57E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.77E+03	2.71E+03	3.41E+01	2.20E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.22E+01	5.57E+00	-3.88E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.11E+00	8.00E-01	2.38E-01	7.10E-02	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.76E+03	2.70E+03	3.43E+01	2.20E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	2.95E-10	2.94E-10	4.64E-14	8.44E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.99E+00	7.72E+00	1.59E-01	1.13E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	3.03E-03	2.64E-03	9.41E-05	2.92E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.95E+00	1.87E+00	4.14E-02	4.26E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.10E+01	2.01E+01	4.62E-01	4.28E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.77E+00	5.53E+00	1.16E-01	1.19E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	2.58E-01	2.58E-01	2.73E-06	1.21E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.36E+04	3.17E+04	4.61E+02	1.46E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	6.16E+00	-2.02E+00	6.88E-01	7.49E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	3.62E+03	2.54E+03	3.69E+01	1.04E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	3.62E+03	2.54E+03	3.69E+01	1.04E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.37E+04	3.18E+04	4.61E+02	1.46E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.37E+04	3.18E+04	4.61E+02	1.46E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	2.82E+00	1.92E+00	4.28E-02	8.59E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.51E+01	6.51E+01	1.80E-05	4.37E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	8.96E+01	8.92E+01	8.74E-02	3.26E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	1.22E+00	7.01E-01	5.69E-03	5.12E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.50E+01	0E+00	0E+00	2.50E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 6a, S350GD+ZM310, t=0,6 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.71E+03	2.68E+03	5.44E+01	-2.83E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.74E+03	2.67E+03	5.40E+01	1.94E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.23E+01	5.51E+00	-7.29E-02	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.28E+00	7.77E-01	4.00E-01	1.03E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.74E+03	2.67E+03	5.45E+01	1.94E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	2.67E-10	2.67E-10	4.89E-14	2.73E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.88E+00	7.58E+00	1.80E-01	1.24E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.93E-03	2.51E-03	1.55E-04	2.65E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.95E+00	1.85E+00	4.72E-02	5.09E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.10E+01	1.99E+01	5.32E-01	5.30E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.74E+00	5.47E+00	1.32E-01	1.33E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	2.18E-01	2.18E-01	4.16E-06	5.31E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.25E+04	3.12E+04	7.27E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-1.57E+01	-2.12E+01	8.67E-01	4.63E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	3.17E+03	2.32E+03	5.19E+01	7.98E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	3.17E+03	2.32E+03	5.19E+01	7.98E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.25E+04	3.12E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.25E+04	3.12E+04	7.28E+02	5.25E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.67E+01	2.67E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.03E-10	1.03E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	1.89E+00	1.53E+00	6.02E-02	0.00E+00	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.52E+01	6.52E+01	3.04E-05	7.12E-06	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	8.72E+01	8.68E+01	1.28E-01	2.53E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	7.82E-01	6.46E-01	6.03E-03	1.30E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2.70E+01	0E+00	0E+00	2.70E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 6b, S350GD+ZM310, t=1,5 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.69E+03	2.65E+03	3.76E+01	6.06E-01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.74E+03	2.65E+03	3.74E+01	4.82E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.23E+01	5.48E+00	-5.21E-03	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.23E+00	7.28E-01	2.20E-01	2.80E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.73E+03	2.64E+03	3.76E+01	4.84E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.91E-10	1.90E-10	2.40E-13	8.54E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.64E+00	7.38E+00	1.07E-01	1.55E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.76E-03	2.16E-03	1.06E-04	4.97E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.92E+00	1.84E+00	2.73E-02	5.68E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.08E+01	1.99E+01	3.04E-01	5.75E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.68E+00	5.45E+00	7.62E-02	1.54E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	9.66E-02	9.66E-02	4.96E-06	1.48E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.30E+04	3.06E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-7.39E+01	-8.49E+01	2.57E+00	8.42E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.96E+03	1.69E+03	1.03E+02	1.17E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.96E+03	1.69E+03	1.03E+02	1.17E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.30E+04	3.06E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.30E+04	3.06E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.78E+01	2.78E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	1.30E+00	2.63E-01	1.19E-01	9.22E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.79E+01	6.79E+01	1.57E-05	1.93E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	8.27E+01	8.20E+01	1.88E-01	4.96E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	1.03E+00	4.83E-01	2.92E-02	5.18E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	6.88E+01	0E+00	0E+00	6.88E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 6c, S350GD+ZM310, t=2,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.67E+03	2.63E+03	3.76E+01	6.06E-01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.72E+03	2.63E+03	3.74E+01	4.82E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.24E+01	5.44E+00	-5.21E-03	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.21E+00	7.14E-01	2.20E-01	2.80E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.71E+03	2.62E+03	3.76E+01	4.84E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.75E-10	1.74E-10	2.40E-13	8.54E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.55E+00	7.29E+00	1.07E-01	1.55E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.69E-03	2.09E-03	1.06E-04	4.97E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.91E+00	1.83E+00	2.73E-02	5.68E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.06E+01	1.97E+01	3.04E-01	5.75E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.64E+00	5.41E+00	7.62E-02	1.54E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	7.39E-02	7.39E-02	4.96E-06	1.48E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.27E+04	3.03E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-8.48E+01	-9.58E+01	2.57E+00	8.42E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.84E+03	1.57E+03	1.03E+02	1.17E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.84E+03	1.57E+03	1.03E+02	1.17E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.27E+04	3.03E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.27E+04	3.03E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.78E+01	2.78E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	1.07E+00	3.37E-02	1.19E-01	9.22E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.79E+01	6.79E+01	1.57E-05	1.93E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	8.13E+01	8.06E+01	1.88E-01	4.96E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	9.98E-01	4.51E-01	2.92E-02	5.18E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	6.88E+01	0E+00	0E+00	6.88E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 6d, S350GD+ZM310, t=3,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.65E+03	2.61E+03	3.76E+01	6.09E-01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.69E+03	2.60E+03	3.74E+01	4.82E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.24E+01	5.39E+00	-5.21E-03	-4.78E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.20E+00	7.00E-01	2.20E-01	2.80E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.69E+03	2.60E+03	3.76E+01	4.84E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.59E-10	1.58E-10	2.40E-13	8.54E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	7.46E+00	7.20E+00	1.07E-01	1.55E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.61E-03	2.01E-03	1.06E-04	4.97E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.89E+00	1.81E+00	2.73E-02	5.68E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	2.05E+01	1.96E+01	3.04E-01	5.75E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.60E+00	5.37E+00	7.62E-02	1.54E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	5.09E-02	5.09E-02	4.96E-06	1.48E-05	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	3.23E+04	2.99E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-9.60E+01	-1.07E+02	2.57E+00	8.42E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.71E+03	1.44E+03	1.03E+02	1.17E+03	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.71E+03	1.44E+03	1.03E+02	1.17E+03	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	3.24E+04	3.00E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	3.24E+04	3.00E+04	5.44E+02	1.81E+03	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.78E+01	2.78E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.07E-10	1.07E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	8.42E-01	-1.99E-01	1.19E-01	9.22E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.79E+01	6.79E+01	1.57E-05	1.93E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.98E+01	7.91E+01	1.88E-01	4.96E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	9.66E-01	4.19E-01	2.92E-02	5.18E-01	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	6.88E+01	0E+00	0E+00	6.88E+01	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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Environmental performance for Steel 7a, S350GD+Z140, t=1,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.45E+03	2.43E+03	1.05E+01	1.22E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.50E+03	2.43E+03	1.05E+01	5.97E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.28E+01	5.07E+00	1.24E-03	-4.79E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.09E+00	6.58E-01	4.66E-02	3.84E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.50E+03	2.42E+03	1.05E+01	6.01E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.19E-10	1.19E-10	4.25E-14	2.04E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	6.97E+00	6.72E+00	1.33E-01	1.20E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.13E-03	1.94E-03	2.22E-05	1.63E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.77E+00	1.69E+00	3.39E-02	4.22E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	1.91E+01	1.83E+01	3.73E-01	4.75E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.23E+00	5.01E+00	9.48E-02	1.27E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	6.70E-02	6.70E-02	1.02E-06	5.68E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	2.89E+04	2.80E+04	1.45E+02	7.94E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-9.22E+01	-9.55E+01	4.66E-01	2.80E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	2.03E+03	1.40E+03	1.89E+01	6.15E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	2.03E+03	1.40E+03	1.89E+01	6.15E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	2.89E+04	2.80E+04	1.45E+02	7.95E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	2.89E+04	2.80E+04	1.45E+02	7.95E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.60E+01	2.60E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	-1.83E-02	-1.67E-01	2.19E-02	1.27E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.35E+01	6.35E+01	3.37E-06	3.02E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.32E+01	7.30E+01	3.86E-02	1.82E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	4.34E-01	4.10E-01	5.18E-03	1.88E-02	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2,7E+01	0E+00	0E+00	2,7E+010	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

Environmental performance for Steel 7b, S350GD+Z140, t=1,0 mm

Potential environmental impact per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Global warming potential total, GWP - total	kg CO_2 eq.	2.43E+03	2.41E+03	1.05E+01	1.22E+01	1.52E+01	4.98E+01	2.47E+01	1.70E+01	2.56E+00	7.01E-01	-1.5E+00
Global warming potential fossil, GWP – fossil	kg CO_2 eq.	2.48E+03	2.41E+03	1.05E+01	5.97E+01	1.51E+01	1.17E+01	2.37E+01	1.69E+01	2.55E+00	7.58E-01	-1.6E+00
Global warming potential biogenic, GWP – biogenic	kg CO_2 eq.	-4.29E+01	5.02E+00	1.24E-03	-4.79E+01	-2.59E-02	3.81E+01	1.21E+00	-2.88E-02	-1.32E-03	-6.01E-02	-1.6E+00
Global warming potential land use and land use change, GWP – LULUC	kg CO_2 eq.	1.07E+00	6.43E-01	4.66E-02	3.84E-01	1.23E-01	3.40E-04	-2.06E-01	1.36E-01	1.74E-02	2.18E-03	2.0E-04
Indicator for climate impact, GWP – GHG	kg CO_2 eq.	2.48E+03	2.40E+03	1.05E+01	6.01E+01	1.52E+01	1.17E+01	2.35E+01	1.70E+01	2.56E+00	7.61E-01	7.5E-05
Depletion potential of the stratospheric ozone layer, ODP	kg CFC-11 eq.	1.19E-10	1.19E-10	4.25E-14	2.04E-13	1.82E-15	3.04E-15	-1.45E-16	2.02E-15	6.17E-15	2.81E-15	3.4E-15
Acidification potential of soil and water, AP	Mol H^+ eq.	6.89E+00	6.64E+00	1.33E-01	1.20E-01	1.48E-02	2.67E-02	2.73E-02	6.25E-02	2.50E-02	5.44E-03	-3.5E-03
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP-freshwater	kg $(PO_4)^{3-}$ eq.	2.02E-03	1.83E-03	2.22E-05	1.63E-04	4.61E-05	1.09E-06	-7.24E-05	5.12E-05	7.42E-06	1.30E-06	-8.7E-07
Eutrophication potential, fraction of nutrients reaching freshwater end compartment, EP – marine	kg N eq.	1.76E+00	1.68E+00	3.39E-02	4.22E-02	4.17E-03	1.21E-02	1.16E-02	2.88E-02	1.21E-02	1.40E-03	-6.2E-04
Eutrophication potential, Accumulated Exceedance, EP-terrestrial	mol N eq.	1.89E+01	1.81E+01	3.73E-01	4.75E-01	5.06E-02	1.46E-01	1.21E-01	3.21E-01	1.33E-01	1.54E-02	-6.3E-03
Formation potential of tropospheric ozone, POCP	kg NMVOC eq.	5.19E+00	4.97E+00	9.48E-02	1.27E-01	1.19E-02	3.10E-02	3.25E-02	5.54E-02	3.53E-02	4.24E-03	-2.6E-03
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	kg Sb eq.	3.56E-02	3.56E-02	1.02E-06	5.68E-06	1.09E-06	8.19E-08	-1.07E-06	1.21E-06	2.79E-06	6.81E-08	-2.5E-05
Abiotic depletion potential for fossil resources, ADP-fossil fuels	MJ, net calorific value	2.86E+04	2.77E+04	1.45E+02	7.94E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.97E+01	9.95E+00	-1.3E+01
Water (user) deprivation potential, deprivation weighted water consumption, WDP	m^3 world eq. deprived	-1.05E+02	-1.08E+02	4.66E-01	2.80E+00	1.36E-01	5.46E+00	-1.48E-01	1.51E-01	4.91E-01	7.95E-02	-1.2E-01

Use of resources per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Use of renewable primary energy excluding renewable primary energy resources used as raw materials, PERE	MJ, net calorific value	1.88E+03	1.25E+03	1.89E+01	6.15E+02	1.14E+01	2.62E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of renewable primary energy resources used as raw materials, PERM	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	2.62E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of renewable primary energy resources, PERT	MJ, net calorific value	1.88E+03	1.25E+03	1.89E+01	6.15E+02	1.14E+01	0E+00	-1.79E+01	1.26E+01	3.59E+00	1.30E+00	1.0E+00
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials, PENRE	MJ, net calorific value	2.86E+04	2.77E+04	1.45E+02	7.95E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of non-renewable primary energy resources used as raw material, PENRM	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Total use of non-renewable primary energy resources, PENRT	MJ, net calorific value	2.86E+04	2.77E+04	1.45E+02	7.95E+02	2.02E+02	1.41E+01	2.00E+01	2.24E+02	4.98E+01	9.96E+00	-1.3E+01
Use of secondary material, SM	kg	2.60E+01	2.60E+01	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of renewable secondary fuels, RSF	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Use of non-renewable secondary fuels, NRSF	MJ, net calorific value	1.00E-10	1.00E-10	0E+00	0E+00	1.00E-10	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Net use of fresh water, FW	m^3	-2.50E-01	-3.99E-01	2.19E-02	1.27E-01	1.32E-02	1.31E-01	-1.95E-02	1.46E-02	1.40E-02	2.51E-03	-2.8E-03

Waste production per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed, HWD	kg	6.35E+01	6.35E+01	3.37E-06	3.02E-05	9.41E-06	9.04E-09	-1.58E-05	1.04E-05	1.30E-06	1.52E-07	-1.7E-06
Non-hazardous waste disposed, NHWD	kg	7.23E+01	7.21E+01	3.86E-02	1.82E-01	3.10E-02	3.60E-01	2.66E-02	3.43E-02	1.35E-02	5.00E+01	1.6E-01
Radioactive waste disposed, RWD	kg	3.92E-01	3.68E-01	5.18E-03	1.88E-02	2.50E-04	9.85E-04	-2.56E-05	2.78E-04	6.58E-04	1.13E-04	4.8E-07

Output flows per ton of steel

Parameter describing environmental impacts	Unit	A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Materials for Recycling (MFR)	kg	2,7E+01	0E+00	0E+00	2,7E+010	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Material for Energy Recovery (MER)	Kg	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported electrical energy (EEE)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00
Exported thermal energy (EET)	MJ	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00

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PCR review was conducted by: The Technical Committee of the International EPD® System. Chair: Claudia A. Peña. Contact via info@environdec.com

Product category rules (PCR): PCR 2019:14 Construction products. Version 1.0, date 2019-12-20.

Independent third-party EPD verification of the declaration and data, according to ISO 14025:2006. Procedure for follow-up of data during EPD validity involves third party verifier.

Third party verifier: Pär Lindman from Miljögiraff AB Approved by The International EPD® System

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804.

Differences with previous version:
When compared to the previous version of the EPD, the difference in the results is caused by the following factors:

- Wider scope of the EPD in terms of modules reported, sites included in the geographical boundaries and products declared.
- Methodology based on a new PCR.
- More recent data for upstream processes, mostly for steel production.
- More recent site-specific data for the core processes (A3).

A description of the percentage change in results can be found in the table below, for selected impact categories for guidance:

Parameter describing environmental impacts	Change in A1-A3 results from previous version (%)
Global warming potential fossil, GWP – fossil	1%
Acidification potential of soil and water, AP	22%
Abiotic depletion potential for non-fossil resources, ADP- minerals & metals	324%
Abiotic depletion potential for fossil resources, ADP-fossil fuels	16%

Additional information

Certifications and labels:
Europrofil AB is certified under ISO 14001 and ISO 9001.

References

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General Programme Instructions of the International EPD® System. Version 3.0 of 11/12/2017.

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Erlandsson, M. & Petterson, D. (2015). Klimatpåverkan för byggnader med olika energiprestanda Underlagsrapport till kontrollstation 2015 (In Swedish). NR U 5176. Available at: https://www.boverket.se/contentassets/4599afc689cd43f0892ad72bf133dadc/klimatpaverkan-for-byggnader-med-olika-energiprestanda.pdf

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Thinkstep / Sphera (2017).
GaBi Databases:
http://www.gabi-software.com/international/databases/gabi-databases/

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