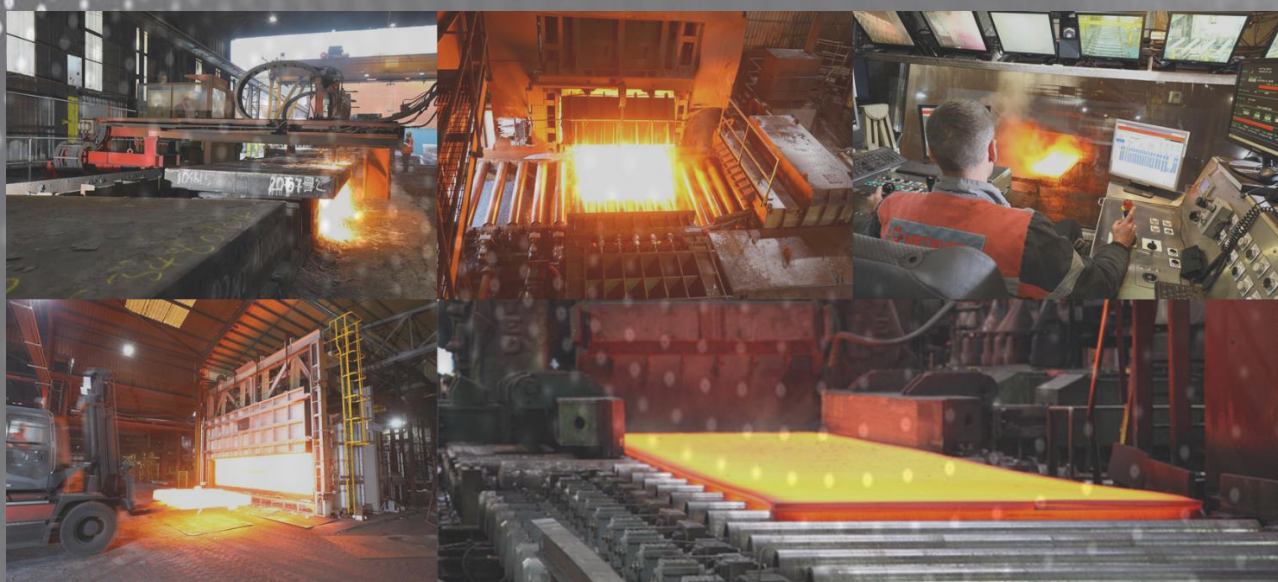


ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH ISO 14025 AND EN 15804

SPARTAN UK LTD

HOT ROLLED REVERSING MILL STEEL PLATES



EPD registration number: S-P-03571 - Version 2.0

Issued on: 2021-06-12

Revised on: 2023-04-27

Valid until: 2026-06-12

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

The environmental impacts of this product have been assessed from cradle to gate with modules C&D

This Environmental Product Declaration has been verified by an independent third party.



Programme: The International EPD® System
www.environdec.com



Introduction

This EPD provides environmental performance indicators for steel plates manufactured by Spartan UK Ltd. This is a cradle-to-gate with options EPD in accordance with the requirements of EN 15804, covering modules A1 - A3, C and D defined in that standard.

The EPD is based on a life cycle assessment (LCA) study which used production data for 2022 from Spartan UK's manufacturing facilities in Gateshead, Tyneside, UK. Background data were taken from the ecoinvent database (v3.6). The EPD presents details of the LCA, a description of the product life cycle it covers, values for the environmental indicators specified by EN 15804 and a brief explanation of those results.

HOT ROLLED REVERSING MILL STEEL PLATE EPD		PROGRAMME INFORMATION
EPD programme	The International EPD® System	
EPD programme operator	EPD International AB - Box 210 60 - SE 100 31 Stockholm - Sweden www.environdec.com - info@environdec.com	
EPD based on Product Category Rules	The CEN standard EN 15804 serves as the core PCR	
	The International EPD® System's PCR 2019:14 Construction products, Version 1.11, 2021-02-05	
PCR review conducted by	The Technical Committee of the International EPD® System Chair: Claudia Peña; contact via info@environdec.com	
EPD verification	Independent verification of this EPD and data, according to ISO 14025:2006: <input type="checkbox"/> EPD process certification <input checked="" type="checkbox"/> EPD verification	
Third party verifier	Andreas Ciroth, Recognized Individual Verifier	
Approved by:	The International EPD® System	
Procedure for data follow-up during EPD validity	involves third party Verifier: yes <input type="checkbox"/> no <input checked="" type="checkbox"/>	
Declaration No (& version)	S-P-03571 - Version 2.0	
Date of publication	2021-06-12	
Date of revision	2023-04-27	
EPD valid until	2026-06-12	
EPD owner	Spartan UK Ltd Ropery Road, Teams, Gateshead, NE8 2RD, United Kingdom www.spartanuk.co.uk	
Product name	Hot rolled reversing mill steel plate	
UN CPC code	41211	
Declared unit	1 tonne steel plate	
System boundaries	Cradle to gate with modules C1–C4 and D (A1–A3 + C + D)	
EPD geographical scope	Europe	
LCA conducted by	EuGeos Limited, UK - +44 (0)1625 434423 www.eugeos.co.uk	
LCA software	openLCA	
Background database	ecoinvent V3.6	

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. For further information about comparability, see EN 15804 and ISO 14025.

Company profile

Spartan UK Ltd – a part of the Metinvest group - from its site in Gateshead, UK operates a plate re-rolling mill offering a wide range of steel plates for use in many sectors such as construction, civil engineering, yellow goods, process and power generation, pipes and general mechanical engineering and metal goods.

Spartan UK offers a roll to size service with each plate being bespoke for its specific order and produced with the shortest possible lead time.

Spartan UK recognises its role to protect communities and environments now and for the future. We are therefore committed to understanding and managing the environmental, economic, and social impacts of our operations.

Integral to this is the goal of sourcing from third party steel makers not only slabs of high quality but also with strong environmental and sustainability credentials and ambitions.

By doing this we can give assurance that the steel plates we provide will meet both current and future market sector requirements and allow us to retain market our competitiveness.



CONTACT

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Product information

This EPD applies to Spartan UK's hot rolled reversing mill steel plates produced at our mill in Gateshead, Tyneside.

These are classified CPC 41211 under the UN CPC classification system v2.1.

HOT ROLLED REVERSING MILL STEEL PLATES

Spartan UK produces hot rolled reversing mill steel plates with a thickness ranging from 10 to 150 mm and a maximum width of 2100 mm. Plates are available in lengths up to a maximum of 20m. The maximum weight of a single plate is 22 tons.

Hot rolled reversing mill steel plates can be supplied in the as-rolled, normalised by rolling, furnace normalised, normalised and tempered, or annealed condition.



MANUFACTURING & USE

The production of Spartan UK's steel plates begins with steel in the form of slabs weighing between 26 and 30 tonnes each. These slabs are cut into smaller pieces, heated in one of 5 furnaces and then hot rolled into plates in a single stand 4-high reversing rolling mill to the required dimensions. Secondary processes such as end shearing, edge trimming, heat treatment and levelling may also be carried out dependent upon grade and order requirements to achieve final mechanical properties, dimension and flatness.

PACKAGING & TRANSPORTATION

The only packaging used on Spartan UK's steel plates are lengths of timber; the quantity of wood used amounts to less than 0.5kg per tonne of steel.

The steel plates are transported by road and or sea by approved third party haulage contractors to customers in the UK, Northern Europe and Scandinavia.

PRODUCT USE AND MAINTENANCE

Steel is passive in use and requires no maintenance or repair during the 50-year lifetime of building assumed in EN 15804 and EN 15978.

END-OF-LIFE

At the end of the building's life, it is anticipated that Spartan UK's steel plates will be removed from the building.

As wastes Spartan UK's steel plates fall under European Waste Catalogue (EWC) code 17 04 05.

Reference service life

No reference service life is specified in this EPD.

CONTENTS INFORMATION

The material composition of Spartan UK's hot rolled reversing mill steel plates, including delivery packaging, is shown below:

Material	Weight (kg)	% of mass per declared functional unit
steel	1000	>99.9
Packaging	Weight (kg)	% of mass per declared functional unit
wood	0.4	<0.1

Wood used in the transport of product to users is the only renewable material in the declared unit, which contains 280kg of post-consumer material.

No substance included in the Candidate List of Substances of Very High Concern for authorization under the REACH Regulations is present in the protection materials, either above the threshold for registration with the European Chemicals Agency or above 0.1% (wt/wt).

TECHNICAL DATA

Steel plates produced by Spartan UK have intended uses as structural steels, steels for pressure purposes, heat treatable steels, alloy steels and free cutting steels.

Steel plates where applicable are produced in compliance with the Construction Products Regulations EU 305/2011, AD2000 W0, The Pressure Equipment Directive 2014/68/EU and The UK Highways Agency Sector Scheme NHSS3B.

The table below is a list of the most common standards and grades produced.

Standard Name	Standard Number	Steel Name
Hot rolled products of structural steels. Technical delivery conditions for non-alloy structural steels	BS EN 10025-2	S235JR, J0, J2 S275JR, J0, J2 S355JR, J0, J2, K2
Hot rolled products of structural steels. Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels	BS EN 10025-3	S275N, NL S355N, NL S420N, NL S460N, NL
Hot rolled products of structural steels. Technical delivery conditions for structural steels with improved atmospheric corrosion resistance	BS EN 10025-5	S355J0W, J2W, K2W, J4W, J5W
Flat products made of steels for pressure purposes. Non-alloy and alloy steels with specified elevated temperature properties	BS EN 10028-2	P235GH P265GH P295GH P355GH
Flat products made of steels for pressure purposes. Weldable fine grain steels, normalized	BS EN 10028-3	P275NH, NL1, NL2 P355N, NH, NL1, NL2 P420NH, NL1, NL2 P460NH, NL1, NL2
Heat-treatable steels, alloy steels and free-cutting steels.	BS EN ISO 683-1, -2, -3	C45, N Various others

RESIDUAL RISKS AND EMERGENCIES

There are no residual risks associated with the normal day-to-day use of Spartan UK's steel plates. Care must be taken to select the materials in accordance with their declared properties and any other associated regulations governing their usage.

FURTHER PRODUCT INFORMATION

Detailed product information and datasheets can be found

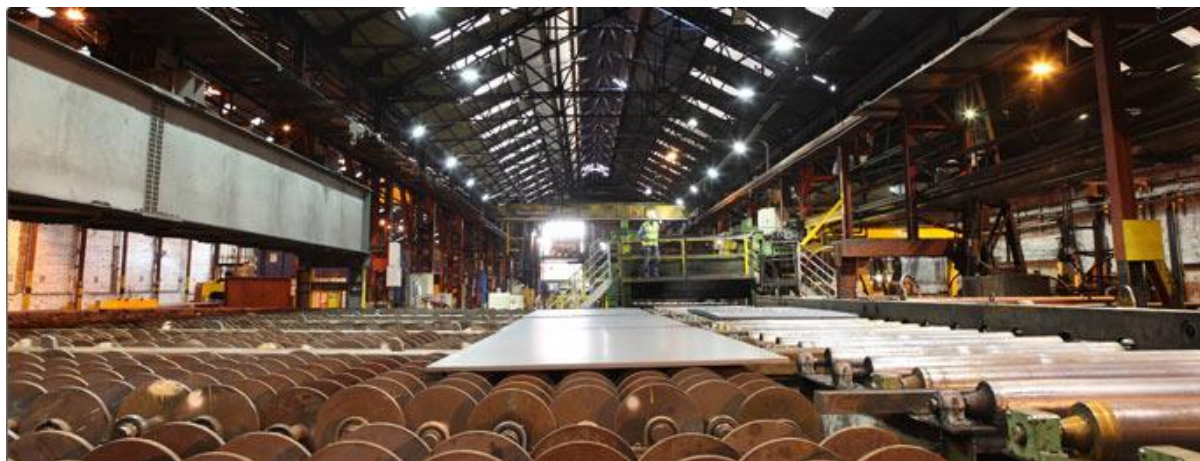
- on our website: <https://spartan.metinvestholding.com>
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LCA information

This section of the EPD records key features of the LCA on which it is based.

The LCA was carried out by EuGeos using openLCA software.

The EPD was updated in 2023, because from March 2022 onwards steel slab from Azovstal and Ilyich works in Mariupol, Ukraine, was no longer available for use at Spartan UK. The update took into account steel sources used in 2022 as well as Spartan UK factory data for that year. Modules A4, C and D were unchanged.

SCOPE

This EPD covers the production stage (modules A1-A3) and end-of-life management (C & D) - see below; as permitted by EN 15804, modules A1-A3 are declared in aggregated form.

Product stage			Construction process stage		Use stage							End of life stage				Benefits & loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste treatment	Disposal	Reuse- recovery- recycling- potential
A 1	A 2	A 3	A 4	A 5	B1	B2	B3	B4	B5	B6	B7	C 1	C 2	C 3	C 4	D
Modules declared X included in LCA - ND: module not declared - NR: module not relevant																
X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography																
GLO		UK	-	-	-	-	-	-	-	-	-	RER				
Specific data used																
>90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - products																
n/a			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - sites																
n/a			-	-	-		-	-	-	-	-	-	-	-	-	-

DECLARED UNIT

The declared unit is one tonne of hot rolled reversing mill steel plate.

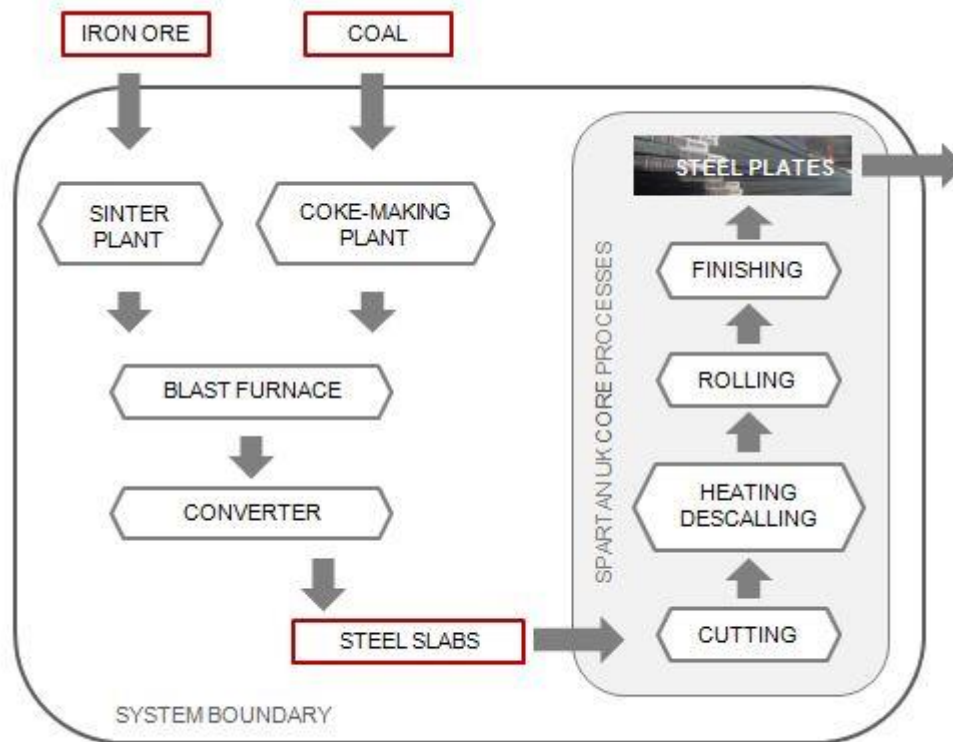
SYSTEM BOUNDARIES

The system boundary of the EPD is defined using the modular approach set out in EN 15804.

As well as the core processes which cover manufacture of steel plates at Spartan UK's Gateshead site, the system includes production of all raw materials and components from basic resources; transport of those materials at all stages up to users' sites, subsequent installation and end-of-life management; the production of fuels and energy carriers and their delivery to manufacturing sites; the treatment of all wastes.

The upstream processing of recycled material inputs that have passed the end-of-waste state is outside the system boundary.

The product life cycle covered by this EPD is illustrated on the next page.



STEEL PLATE LIFE- CYCLE

CUT-OFF CRITERIA

The collected data covered all raw materials, consumables and packaging materials; associated transport to the manufacturing site; process energy and water use; direct production wastes; emissions to air and water.

According to EN 15804 and the PCR, flows can be omitted (cut off) from a core process in the LCA up to a maximum of 1% of the total mass of material inputs or 1% of the total energy content of fuels and energy carriers; some ancillary materials used in small quantities within the process and amounting, in combination, to <0.1% of total input materials were omitted from the LCA underpinning this EPD.

DATA SOURCES AND DATA QUALITY

Data characterising Spartan UK's core processes (see above figure) and the converter unit supplying most of the steel processed by Spartan UK were collected for a continuous 12-month period between 01/01/2019 and 31/12/2019; these primary data were updated for 2022. The data have therefore been updated within the last 5 years.

These data were checked to ensure that sufficient materials and water are included within the inputs to account for all products, wastes and emissions.

BACKGROUND DATA

Background (generic) data were taken from the ecoinvent database (v3.6); this fulfils the EN 15804 requirement that generic data used in the LCA have been updated within the last 10 years. The quality of generic data has been reviewed and datasets adjusted to better reflect actual operations in Spartan UK's supply chain.

Product-specific data accounts for >90% of the GWP total values reported for the product stage (A1-A3).

ALLOCATION

In the background data, the ecoinvent default allocation is applied to all processes except those in which secondary materials are used, where the "cut-off" allocation is applied. This ensures that secondary materials are free of

upstream burdens that arise prior to their reaching the "end of waste" state, in accordance with Section 6.3.4.2 of EN 15804.

ASSUMPTIONS AND ESTIMATES

Inputs to and outputs from the system are accounted for over a 100-year time period; long-term emissions are therefore omitted from the impact assessment part of the LCA, except for biogenic carbon-containing flows, which are accounted for on an indefinite timeframe.

The "primary energy used as material" indicators (PERM; PENRM) are calculated using - as characterisation factors - published values for constituent materials which can yield energy on combustion, where available, and from published calorific values where PE(N)RM values are not available. In this study PERM is approximated to zero, omitting the wood, which accounts for 0.05% of the declared unit. "Primary energy as fuel" indicators (PENRE, PERE) are calculated as the total primary energy demand minus primary energy used as material. Module D calculations exclude any third-party recycling of packaging or process wastes arising in Module D.

Transport to waste processing, waste treatment and final disposal are modelled using scenarios. The relevant parameters for the transport scenarios are shown in the tables below.

Scenario Parameters – C2 transport to waste treatment	
Parameter	Quantity & unit
Vehicle type	lorry
Vehicle load capacity	10t; n/a
Fuel type and consumption	diesel, 0.1 l/km
Volume capacity utilisation factor	1
Capacity utilisation (including empty returns)	33%
Distance to site	75 km
Bulk density of transported products	7400 kg/m ³

Waste treatment (module C3) is modeled as shredding and crushing of steel scrap, using generic data. A recycling rate of 95% is assumed, in line with that reported for steel sheet from buildings in material published by the European Commission to support Product environmental Footprint (PEF) studies.

Final disposal (module C4) is modeled as the disposal of 50kg non-recycled steel per declared unit in an inert material landfill.

Module D is also calculated on the basis of a 95% recycling rate, with recycled steel displacing generic converter steel (before rolling or other finishing) with a quality factor of 1 (i.e. with no reduction in overall quality attributes compared to new material). The displaced converter steel is represented by generic data for unalloyed converter steel. Module D is calculated for the net quantity of material recycled, in this case 670kg.

ENVIRONMENTAL INDICATORS

This EPD contains environmental information about Spartan UK's steel plates in the form of quantitative indicator values for a number of parameters, which encompass calculated environmental impact potentials, resource and energy use, waste generation and material and energy outputs from the product system that may be reused, recycled or recovered into other, unspecified product life cycles. These parameters are listed below along with the abbreviations used for them in the tables of indicator values that follow.

Parameter	Abbreviation	Units
Potential environmental impacts		
Climate change – GWP fossil	GWP-fossil	kg CO ₂ eq
Climate change – GWP biogenic	GWP-biogenic	kg CO ₂ eq
Climate change – GWP land transformation	GWP-luluc	kg CO ₂ eq
Climate change – GWP total	GWP-total	kg CO ₂ eq
Climate change - GWP fossil & land transformation ¹	GWP-GHG	kg CO ₂ eq
Acidification potential	AP	mol H ⁺ eq
Eutrophication – freshwater	EP-freshwater	kg P eq & kg PO ₄ ³⁻ eq
Eutrophication – marine	EP-marine	kg N eq
Eutrophication – terrestrial	EP-terrestrial	mol N eq
Photochemical ozone formation	POFP	kg NMVOC eq
Ozone depletion	ODP	kg CFC-11 eq
Depletion of abiotic resources – minerals & metals ²	ADPMM	kg Sb eq
Depletion of abiotic resources – fossil fuels ²	ADPFF	MJ, ncv
Water (user) deprivation potential ²	WDP	m ³ world-eq deprived
Resource use		
Renewable primary energy as energy carrier	PERE	MJ
Renewable primary energy resources as material utilisation	PERM	MJ
Total renewable primary energy use (sum of the two parameters above)	PERT	MJ
Non-renewable primary energy as energy carrier	PENRE	MJ
Non-renewable primary energy resources as material utilisation	PENRM	MJ
Total non-renewable primary energy use (sum of the two parameters above)	PENRT	MJ
Use of secondary material	SM	kg
Use of renewable secondary fuels	RSF	MJ
Use of non-renewable secondary fuels	NRSF	MJ
Net use of fresh water	FW	m ³
Wastes		
Hazardous waste disposed	HWD	kg
Non-hazardous waste disposed	NHWD	kg
Radioactive waste disposed	TRWD	kg
Output flows		
Components for re-use	CRU	kg
Materials for recycling	MFR	kg
Materials for energy recovery	MER	kg
Exported energy - electrical	EEE	MJ
Exported energy - thermal	EET	MJ

¹ - GWP-GHG includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013

² - The results of this environmental impact indicator shall be used with care because either the uncertainties associated with the results are high or there is limited experience with the indicator

ENVIRONMENTAL INDICATOR RESULTS (PER DECLARED UNIT)

Environmental indicator results for all declared modules are shown in the following tables for the declared unit of one tonne hot rolled reversing mill steel plate; the A1 - A3 modules are shown on an aggregated basis.

SPARTAN UK LTD - HOT ROLLED REVERSING MILL STEEL PLATES							
ENVIRONMENTAL IMPACTS EN15804 + A2	Unit	A1 - A3	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq	2.10E+03	9.89E-01	3.85E+01	2.44E+01	1.34E-01	-1.26E+03
GWP-biogenic	kg CO ₂ eq	-8.19E+00	7.35E-05	-2.43E-02	-1.57E+00	3.30E-04	6.00E+00
GWP-luluc	kg CO ₂ eq	5.91E-01	8.36E-05	2.16E-02	2.44E-02	1.23E-05	-3.92E-01
GWP-total	kg CO ₂ eq	2.09E+03	9.89E-01	3.85E+01	2.28E+01	1.34E-01	-1.26E+03
GWP-GHG	kg CO ₂ eq	2.10E+03	9.88E-01	3.85E+01	2.45E+01	1.34E-01	-1.26E+03
AP	mol H ⁺ eq	7.79E+00	1.69E-03	9.61E-02	1.94E-01	2.60E-04	-4.88E+00
EP-freshwater	kg P eq	9.81E-02	3.99E-06	4.50E-04	1.45E-03	8.84E-07	-5.69E-02
EP-freshwater	kg PO ₄ ³⁻ eq	3.01E-01	1.22E-05	1.38E-03	4.44E-03	2.71E-06	-1.74E-01
EP-marine	kg N eq	1.48E+00	2.22E-04	1.26E-02	1.97E-02	3.10E-05	-9.12E-01
EP-terrestrial	mol N eq	1.58E+01	2.43E-03	1.40E-01	2.43E-01	3.40E-04	-9.72E+00
POFP	kg NMVOC eq	7.52E+00	2.42E-03	6.48E-02	8.58E-02	3.20E-04	-4.67E+00
ODP	kg CFC-11 eq	1.10E-04	2.10E-07	8.25E-06	3.57E-06	2.69E-08	-5.62E-05
ADPMM	kg Sb eq	7.97E-03	1.51E-06	1.89E-03	1.36E-03	1.95E-07	-5.27E-03
ADPFF	MJ, ncv	3.08E+04	1.34E+01	5.65E+02	3.35E+02	1.79E+00	-1.68E+04
WDP	m ³ world-eq deprived	3.25E+04	2.89E+00	8.86E+02	1.10E+03	3.89E-01	-4.09E+03
RESOURCE USE	Unit	A1 - A3	C1	C2	C3	C4	D
PERE	MJ	7.74E+02	7.36E-02	1.22E+01	5.39E+01	1.37E-02	-4.22E+02
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	7.74E+02	7.36E-02	1.22E+01	5.39E+01	1.37E-02	-4.22E+02
PENRE	MJ	3.08E+04	1.35E+01	5.82E+02	3.82E+02	1.80E+00	-1.71E+04
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	3.08E+04	1.35E+01	5.82E+02	3.82E+02	1.80E+00	-1.71E+04
SM	kg	2.34E+02	6.68E-03	3.57E-01	0.00E+00	8.50E-04	-1.46E+02
RSF	MJ	2.50E+01	1.81E-03	4.44E-01	4.57E-01	3.50E-04	-4.28E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	9.57E+00	3.74E-04	6.05E-02	1.02E-01	4.92E-05	-4.64E+00

WASTES	Unit	A1 - A3	C1	C2	C3	C4	D
HWD	kg	3.34E+02	1.46E-02	8.17E-01	1.77E+00	2.38E-03	-2.04E+02
NHWD	kg	3.70E+03	1.57E-01	3.57E+01	9.47E+01	5.00E+01	-2.14E+03
TRWD	kg	4.49E-02	9.55E-05	3.82E-03	2.15E-03	1.20E-05	-1.74E-02
OUTPUT FLOWS	Unit	A1 - A3	C1	C2	C3	C4	D
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	2.32E+02	6.56E-03	0.00E+00	9.50E+02	0.00E+00	-1.45E+02
MER	kg	3.04E-01	2.04E-05	0.00E+00	0.00E+00	0.00E+00	-7.67E-02
EEE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

INTERPRETATION OF THE LCA RESULTS

Indicator values obtained for resource depletion (ADPMM, ADPFF), stratospheric ozone depletion (ODP) and water deprivation (WDP) potential should be used with caution; all are subject to uncertainties in data or method which limit the scope for their use as the basis for comparisons. In this study, the FW indicator is strongly driven by generic data characterising upstream processes which may not represent well the actual activities in Spartan's particular supply chain.

Acidification and POFP indicators are much lower in Version 2.0 than in Version 1.0; SO₂ & NO_x emissions in data characterising blast furnace operation strongly influence these indicators. SO₂ emissions in the generic blast furnace data used for Version 2.0 of this LCA are significantly less than the low end of the range reported in the European Iron and Steel BREF.

No untreated wastes leave the modelled system, which includes waste treatment activities as required by EN 15804. The waste indicators HWD, NHWD and TRWD presented in this EPD therefore represent waste flows *within* the modelled system.

Additional environmental information

ENVIRONMENTAL IMPACTS (EN 15804+A1:2013)

For information, indicator values calculated using the methods prescribed in the earlier version of EN 15804 (EN 15804+A1:2013) are provided in the table below for the declared unit of 1 tonne hot rolled reversing mill steel plate; modules A1 - A3 are shown on an aggregated basis.

ENVIRONMENTAL IMPACTS (EN 15804 + A1)	Unit	A1 - A3	C1	C2	C3	C4	D
GWP	kg CO ₂ -eq	2.01E+03	9.82E-01	3.81E+01	2.40E+01	1.32E-01	-1.21E+03
ODP	kg CFC11-eq	1.00E-04	1.70E-07	6.60E-06	3.02E-06	2.13E-08	-5.05E-05
AP	kg SO ₂ -eq	6.57E+00	1.45E-03	8.34E-02	1.73E-01	2.30E-04	-4.14E+00
EP	kg PO ₄ ³⁻ -eq	8.51E-01	1.51E-04	8.17E-03	1.28E-02	2.13E-05	-5.13E-01
POCP	kg ethene-eq	1.37E+00	1.50E-04	5.05E-03	8.50E-03	3.75E-05	-8.55E-01
ADPE	kg Sb-eq	7.97E-03	1.51E-06	1.89E-03	1.36E-03	1.95E-07	-5.27E-03
ADPF	MJ	2.92E+04	1.34E+01	5.65E+02	3.35E+02	1.79E+00	-1.68E+04

Global warming potential (GWP) - Depletion potential of the stratospheric ozone layer (ODP) - Acidification potential of land and water (AP) - Eutrophication potential (EP) - Formation potential of tropospheric ozone photochemical oxidants (POCP) - Abiotic depletion potential for non-fossil resources (ADPE) - Abiotic depletion potential for fossil resources (ADPF)

BIOGENIC CARBON

Carbon dioxide (CO₂) is absorbed from the atmosphere by trees, so any wood-based product contains some carbon from this source. This carbon is considered as a negative emission in some carbon accounting systems.

The biogenic carbon in the wood contained in the declared unit in this EPD is shown below, and is associated with packaging only.

Biogenic carbon content per declared unit	Unit	Quantity
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.2

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂

ENVIRONMENTAL ACCREDITATIONS

At Spartan UK Limited we care about our environmental and societal responsibilities; our Gateshead site operates an environmental management system, which has been certified to ISO 14001 since 2014 (certificate GB01178), and our responsible product sourcing has been certified 'good' to BES 6001 standard since 2020 (certificate GB01178).

References

BES 6001 - Responsible Sourcing of Construction Products - British Standards Institute, London

ecoinvent database (v3.6) - www.ecoinvent.ch

EN 15804:2012 + A1:2013 and EN 15804:2012 + A2:2019 - Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products

General Program Instructions, V4.0, 2021-03-29 - The International EPD® System - EPD International AB

ISO 14001:2015 - Environmental management systems – Requirements with guidance for use

ISO 14025:2009-11 - Environmental labels and declarations - Type III environmental declarations - Principles and procedures

PCR 2019:14 Construction products Version 1.11, 2021-02-05 - The International EPD® System - EPD International AB

Best Available Techniques Reference Document (BREF) for Iron and Steel Production R. Remus, M.A. Aguado-Monsonet, S. Roudier, L.D. Sancho, European Commission 2013

Steel Plate LCA (2023 update) - Report for Spartan UK Ltd - EuGeos

Glossary

The International EPD® System: a programme for Type III environmental declarations, maintaining a system to verify and register EPDs as well as keeping a library of EPDs and PCRs in accordance with ISO 14025. (www.environdec.com)

Life cycle assessment (LCA): LCA studies the environmental aspects and quantifies the potential impacts (positive or negative) of a product (or service) throughout its entire life. ISO standards ISO 14040 and ISO 14044 set out conventions for conducting LCA.

REACH Regulation: REACH is the European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals. It entered into force in 2007, replacing the former legislative framework for chemicals in the EU.