ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

BE GROUP

CUT AND BENT REINFORCING STEEL BARS

BE GROUP SVERIGE AB

Programme:	Programme operator:	EPD registration number:	Publication date:	Valid until:
The International EPD®	EPD International AB	S-P-04449	2021-08-25	2026-07-26

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.

GENERAL INFORMATION

MANUFACTURER INFORMATION

Manufacturer EPD-008	BE Group Sverige AB
Address	Krangatan 4B, 211 24 Malmö
Contact details	info@begroup.se
Website	https://www.begroup.se/

PRODUCT IDENTIFICATION

Product name	Cut and bent reinforcing steel bars
Additional label(s)	Cut and bent rebar
Product number / reference	Reinforcing steel bar
Place(s) of production	Malmö, Sweden
CPC code	4126

The International EPD System

EPDs within the same product category but from different programmes may not be comparable

EPD INFORMATION

The EPD owner has the sole ownership, liability, and responsibility for the EPD. Construction products EPDs may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

EPD program operator	The International EPD System
EPD standards	This EPD is in accordance with EN 15804+A2 and ISO 14025 standards.
Product category rules	The CEN standard EN 15804 serves as the core PCR. In addition, the International EPD system PCR 2019:14 Construction products, version 1.11 (05.02.2021) is used.
EPD author	Jens Karlsson, BE Group Sverige AB
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
Verification date	2021-07-26
EPD verifier	Silvia Vilčeková, Silcert s.r.o.
EPD number	S-P-04449
Publishing date	2021-08-25
EPD valid until	2026-07-26

PRODUCT INFORMATION

PRODUCT DESCRIPTION

This EPD represents cut and bent reinforcing steel produced at the manufacturing unit of BE Group in Malmö, Sweden. The rebar is cut, or cut and bent, according to the customer´s specification.

PRODUCT APPLICATION

Cut and bent reinforcing steel bars are used as a tension device in reinforced concrete and reinforced masonry structures to strengthen and aid the concrete under tension.

TECHNICAL SPECIFICATIONS

Cut and bent reinforcing steel is cut to different lengths and bent according to the customer´s specification. The production process is planned with computerized equipment and therefor the cutting and bending operations can be made at the same moment. Reinforcing steel used for cut and bent rebars come in different dimensions (diameters 6 - 32 mm) and in different steel grades. The steel grades mainly delivered by BE Group are K500C-T and SS260S. K500C-T is produced with hot rolling and quick cooling, while SS260S is produced with hot rolling without cooling.

PRODUCT STANDARDS

The rebar complies with the standard SS 212540:2014 - Product specification for SS-EN 10080:2005 - Steel for the reinforcement of concrete.

PHYSICAL PROPERTIES OF THE PRODUCT

Detailed technical information about the product can be found at: *https://www.begroup.se/armering*

ADDITIONAL TECHNICAL INFORMATION

Further information can be found at ***https://www.begroup.se/***

PRODUCT RAW MATERIAL COMPOSITION

Product and Packaging Material	Steel
Weight, kg	1
Post-consumer %	100%
Renewable %	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

MANUFACTURING AND PACKAGING (A1-A3)

BE Group purchase reinforcing steel bars from suppliers (A1). The exact allocation of volume between suppliers varies over the years depending on supply and cost. The reinforcing steel is delivered to the production site in Malmö (A2) where the bars are cut and bent to different shapes and sizes (A3). Some already cut and bent products are bought as ready made products and are either delivered directly from the supplier to the customer or delivered to BE Group warehouse (A2) for distribution to customers later. The transport from the suppliers is made by ferry, railway and/or lorry, the packaging material is steel wire, EU pallets and sometimes also textile slings. When sent to customers from BE Group site the packaging material is steel wire, EU pallets and textile slings. During loading and unloading or displacement of the product diesel powered trucks are used. Electricity used at the site is fossil free, waste from production is steel scrap (A3).

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Transportation to construction site goes either directly from the supplier or from BE Group warehouse (A4). Transport from BE Group is done by lorry which mostly use renewable fuel, 82% of all transports. Stockholm has been chosen as a proxy for customers location, that means in average 600 km distance when shipping from BE Group site. For transport directly from the supplier to the construction site, the distance from the supplier to Stockholm have been used. Vehicle capacity utilization volume factor is assumed to be 1 which means full load. Empty returns are not taken into account as it is assumed that return trips is used by the transportation company to serve needs of other clients.

A5 is excluded in the scenario since BE Group do not have knowledge of how the installation is executed.

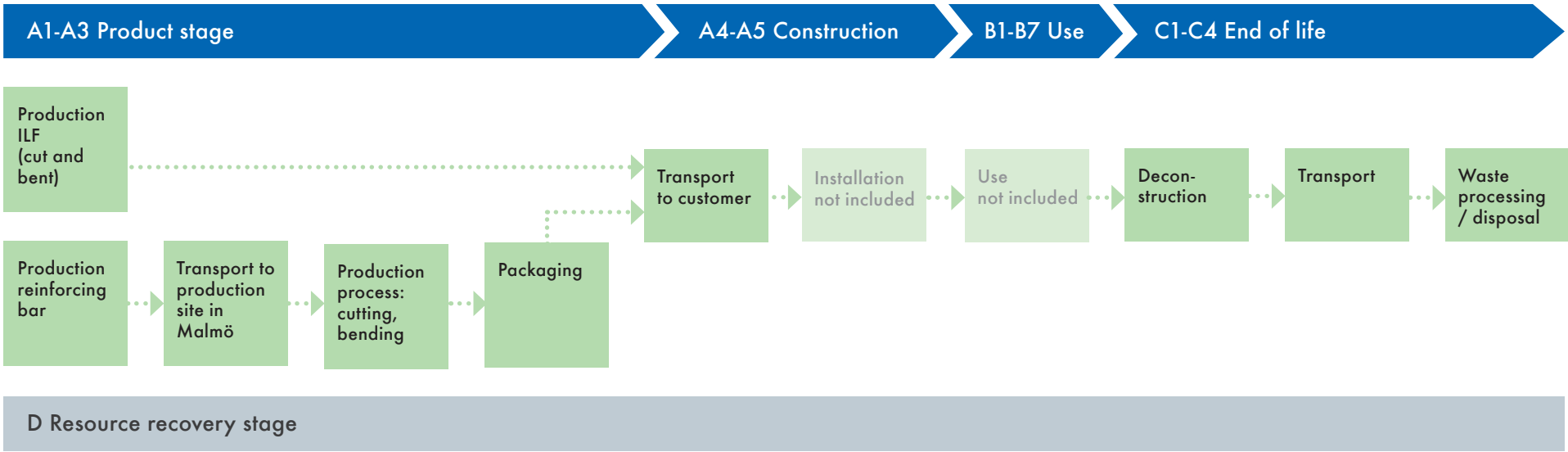
PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase. Air, soil and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

At end of life the de-construction and demolition of the reinforced concrete is assumed to be made by diesel powered machinery which consumes 0,01 kWh/kg of product. It is assumed that 100% of the waste is collected (C1). Distance for transportation to treatment is assumed to be 50 km and the transportation method is assumed to be lorry (C2). 95% of the reinforcing bar is assumed to be recycled, this assumption is based on World Steel Association, 2020 (C3). It is assumed that 5% of the product is taken to landfill (C4). Due to the recycling process the end- of- life product is converted into recycled steel (D).

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

LIFE-CYCLE ASSESSMENT INFORMATION

Period for data	2020

DECLARED AND FUNCTIONAL UNIT

Declared unit	1 kg
Mass per declared unit	1

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate	
Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0

SYSTEM BOUNDARY

This EPD covers the cradle to gate with options scope with following modules; A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing), A4 (Transport), as well as C1 (Deconstruction), C2 (Transport at end-of-life), C3 (Waste processing) and C4 (Disposal). In addition, module D - benefits and loads beyond the system boundary is included.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	D	D
x	x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x	x	x
Geography, by two-letter ISO country code or regions.																		
EU	EU	EU	EU	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr. / demol	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the EN 15804:2012+A2:2019 and the applied PCR. The study does not exclude any hazardous materials or substances.

The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

Because of lack of accuracy in available modelling resources steel wire and textile straps are excluded, they constituents under 0,1% of product mass. Also the EU pallets are excluded they have a low mass share compared to the product and are reused. The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation.
In this study, as per EN 15804, allocation is conducted in the following order;

1. Allocation should be avoided.

2. Allocation should be based on physical properties (e.g. mass, volume) when the difference in revenue is small.

3. Allocation should be based on economic values.

Diesel consumption for trucks used when loading and unloading in the warehouse as well as they use of electricity is allocated based on volume (mass).

Allocation used in Ecoinvent 3.6 environmental data sources follows the methodology 'allocation, cut-off by classification'. This methodology is in line with the requirements of the EN 15804 -standard.

BIOGENIC CARBON CONTENT

The International EPD System additional data requirements
Data specificity and GWP-GHG variability for GWP-GHG for A1-A3.

Supply-chain specific data for GWP-GHG	70 %
Variation in GWP-GHG between products	%
Variation in GWP-GHG between sites	%

ENVIRONMENTAL IMPACT

Note: additional environmental impact data may be presented in annexes.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total	kg CO2e	5,95E−1	3,08E−2	1,98E−3	6,28E−1	1,03E−1	MND	MND	MND	MND	MND	MND	MND	MND	3,3E−3	6,59E−3	2,21E−2	2,64E−4	−7,17E−2
GWP – fossil	kg CO2e	5,87E−1	3,08E−2	2E−3	6,19E−1	1,04E−1	MND	MND	MND	MND	MND	MND	MND	MND	3,3E−3	6,58E−3	2,34E−2	2,63E−4	−7,22E−2
GWP – biogenic	kg CO2e	7,62E−3	2,32E−5	−2,58E−5	7,62E−3	−6,22E−3	MND	MND	MND	MND	MND	MND	MND	MND	9,17E−7	4E−6	−1,34E−3	5,22E−7	5,36E−4
GWP – LULUC	kg CO2e	6,88E−4	3,08E−5	1,38E−6	7,2E−4	6,19E−5	MND	MND	MND	MND	MND	MND	MND	MND	2,79E−7	2,37E−6	2,66E−5	7,82E−8	2E−6
Ozone depletion pot.	kg CFC11e	6,61E−8	5,46E−9	1,66E−9	7,32E−8	2,09E−8	MND	MND	MND	MND	MND	MND	MND	MND	7,12E−10	1,52E−9	3,37E−9	1,08E−10	−1,92E−9
Acidification potential	mol H+e	3,16E−3	6,92E−4	1,99E−5	3,87E−3	1,44E−3	MND	MND	MND	MND	MND	MND	MND	MND	3,45E−5	3,75E−5	2,84E−4	2,5E−6	−2,79E−4
EP-freshwater[2)]	kg Pe	3,74E−5	4,54E−7	5,29E−8	3,79E−5	4,14E−6	MND	MND	MND	MND	MND	MND	MND	MND	1,33E−8	5,76E−8	1,62E−6	3,18E−9	−2,9E−6
EP-marine	kg Ne	6,63E−4	1,89E−4	7,3E−6	8,6E−4	6,95E−4	MND	MND	MND	MND	MND	MND	MND	MND	1,52E−5	1,34E−5	6,27E−5	8,61E−7	−5,48E−5
EP-terrestrial	mol Ne	7,65E−3	2,1E−3	7,85E−5	9,83E−3	5,4E−3	MND	MND	MND	MND	MND	MND	MND	MND	1,67E−4	1,48E−4	7,28E−4	9,48E−6	−5,8E−4
POCP (“smog”)	kg NMVOCe	2,67E−3	5,48E−4	2,16E−5	3,24E−3	1,08E−3	MND	MND	MND	MND	MND	MND	MND	MND	4,59E−5	4,23E−5	1,99E−4	2,75E−6	−3,79E−4
ADP-minerals & metals	kg Sbe	2,97E−6	2,21E−7	3,71E−8	3,23E−6	3,33E−6	MND	MND	MND	MND	MND	MND	MND	MND	5,03E−9	1,7E−7	1,3E−6	2,41E−9	−7,17E−8
ADP-fossil resources	MJ	9,06E0	3,97E−1	3,51E−1	9,81E0	1,44E0	MND	MND	MND	MND	MND	MND	MND	MND	4,54E−2	1,01E−1	3,25E−1	7,36E−3	−5,33E−1
Water use[1)]	m3e depr.	4,79E−1	2,3E−3	3,59E−3	4,85E−1	1,77E−2	MND	MND	MND	MND	MND	MND	MND	MND	8,46E−5	3,57E−4	4,61E−3	3,4E−4	−1,03E−2

1) GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential. 2) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. 3) Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy	MJ	1,02E0	1,17E−2	1,75E−3	1,04E0	4,37E−1	MND	MND	MND	MND	MND	MND	MND	MND	2,45E−4	1,45E−3	5,1E−2	5,95E−5	7,08E−3
Renew. PER as material	MJ	1,3E−2	0E0	0E0	1,3E−2	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Total use of renew. PER	MJ	1,03E0	1,17E−2	1,75E−3	1,05E0	4,37E−1	MND	MND	MND	MND	MND	MND	MND	MND	2,45E−4	1,45E−3	5,1E−2	5,95E−5	7,08E−3
Non-re. PER as energy	MJ	1,02E1	3,97E−1	3,51E−1	1,1E1	1,44E0	MND	MND	MND	MND	MND	MND	MND	MND	4,54E−2	1,01E−1	3,25E−1	7,36E−3	−5,33E−1
Non-re. PER as material	MJ	3,78E−5	0E0	0E0	3,78E−5	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Total use of non-re. PER	MJ	1,02E1	3,97E−1	3,51E−1	1,1E1	1,44E0	MND	MND	MND	MND	MND	MND	MND	MND	4,54E−2	1,01E−1	3,25E−1	7,36E−3	−5,33E−1
Secondary materials	kg	1,03E0	0E0	0E0	1,03E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	3,38E−2
Renew. secondary fuels	MJ	8,81E−3	0E0	0E0	8,81E−3	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	8,05E−2	0E0	0E0	8,05E−2	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m3	1,02E−2	7,93E−5	8,72E−5	1,04E−2	2,04E−3	MND	MND	MND	MND	MND	MND	MND	MND	4,01E−6	1,9E−5	1,33E−4	8,05E−6	−4,79E−4

6) PER = Primary energy resources

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	Kg	6,1E−2	9,91E−4	1,5E−4	6,21E−2	2,83E−3	MND	MND	MND	MND	MND	MND	MND	MND	4,88E−5	1,06E−4	0E0	6,87E−6	−8,67E−3
Non-hazardous waste	Kg	7,62E−1	2,15E−2	3,07E−3	7,87E−1	1,38E−1	MND	MND	MND	MND	MND	MND	MND	MND	5,22E−4	8,54E−3	0E0	5E−2	−9,77E−2
Radioactive waste	Kg	4,01E−4	2,52E−6	5,41E−6	4,08E−4	9,12E−6	MND	MND	MND	MND	MND	MND	MND	MND	3,18E−7	6,9E−7	0E0	4,87E−8	3,91E−7

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	Kg	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	Kg	8,55E−2	0E0	1,9E−2	1,04E−1	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	9,5E−1	0E0	0E0
Materials for energy rec	Kg	9,36E−5	0E0	0E0	9,36E−5	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG	kg CO2e	5,87E−1	3,08E−2	2E−3	6,19E−1	1,04E−1	MND	MND	MND	MND	MND	MND	MND	MND	3,3E−3	6,58E−3	2,34E−2	2,63E−4	−7,22E−2

8) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013) This indicator Is almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity production, nuclear, boiling water reactor (Reference product: electricity, high voltage)
Electricity CO2e / kWh	0.0122
District heating data source and quality	-
District heating CO2e / kWh	-

BIBLIOGRAPHY

ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations. Principles and procedures.

ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.

ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.

Ecoinvent database v3.6 (2019) and One Click LCA database.

EN 15804:2012+A2:2019 Sustainability in construction works – Environmental product declarations – Core rules for the product category of construction products.

International EPD system PCR 2019:14 Construction products, version 1.11 (05.02.2021) EPD. General Programme Instructions of the international EPD® system. Version 4.0

BE Group Sverige AB Cut and bent reinforcing steel bars LCA background report 07.07.2021

ABOUT THE MANUFACTURER

BE Group is a trading and service company, offering a broad range of steel, stainless steel and aluminium products. With extensive expertise and efficient processes in purchasing, logistics and production, we offer inventory sales, production service and direct deliveries to customers based on their specific needs for steel and metal products. The customers mainly operate in the manufacturing and construction industries in Sweden, Finland and the Baltic States. BE Group is certified according to ISO 14001 and ISO 9001.

EPD AUTHOR AND CONTRIBUTORS

Manufacturer	BE Group Sverige AB
EPD author	Jens Karlsson, BE Group Sverige AB
EPD verifier	Silvia Vilčeková, Silcert s.r.o.
EPD program operator	The International EPD System
Background data	This EPD is based on Ecoinvent 3.6 (cut-off) and One Click LCA databases.
LCA software	The LCA and EPD have been created using One Click LCA Pre-Verified EPD Generator for Primary Steel and Aluminium and all Metal-Based Products

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with EN 15804, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The background report (project report) for this EPD

VERIFICATION OVERVIEW

Following independent third party has verified this specific EPD:

EPD verification information	Answer
Independent EPD verifier	Silvia Vilčeková, Silcert s.r.o.
EPD verification started on	2021-07-15
EPD verification completed on	2021-07-26
Supply-chain specific data %	70 % of A1-A3 GWP-GHG/fossil
Approver of the EPD verifier	The International EPD System
Author & tool verification	**Answer**
EPD author	Jens Karlsson, BE Group Sverige 2
EPD author training completion	021-03-23
EPD Generator module	Primary Steel and Aluminium and all Metal-Based Products
Independent software verifier	Ugo Pretato, Studio Fieschi & soci Srl
Software verification date	11.5.2021

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of

- the data collected and used in the LCA calculations,
- the way the LCA-based calculations have been carried out,
- the presentation of environmental data in the EPD, and
- other additional environmental information, as present

with respect to the procedural and methodological requirements in ISO 14025:2010 and EN 15804:2012+A2:2019.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

VERIFICATION AND REGISTRATION (ENVIRONDEC)

ISO standard ISO 21930 and CEN standard EN 15804 serves as the core Product Category Rules (PCR)	
PCR	PCR 2019:14 Construction products, version 1.11
PCR review was conducted by:	The Technical Committee of the International EPD® System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact.
Independent third-party verification of the declaration and data, according to ISO 14025:2006:	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
Third party verifier	Silvia Vilčeková, Silcert s.r.o
	Approved by: The International EPD® System Technical Committee, supported by the Secretariat
Procedure for follow-up during EPD validity involves third party verifier	☐ yes ☑ no

EPD®

THE INTERNATIONAL EPD® SYSTEM

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ANNEX 1 : ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO2e	6,2E−1	3,05E−2	1,98E−3	6,53E−1	1,03E−1	MND	MND	MND	MND	MND	MND	MND	MND	3,27E−3	6,52E−3	2,31E−2	2,58E−4	−6,87E−2
Ozone depletion Pot.	kg CFC11e	4,63E−8	4,37E−9	2,49E−9	5,31E−8	1,72E−8	MND	MND	MND	MND	MND	MND	MND	MND	5,63E−10	1,21E−9	2,86E−9	8,59E−11	−1,7E−9
Acidification	kg SO2e	2,14E−3	5,42E−4	6,82E−6	2,69E−3	9,05E−4	MND	MND	MND	MND	MND	MND	MND	MND	4,87E−6	1,35E−5	1,77E−4	1,04E−6	−2,19E−4
Eutrophication	kg PO4 3e	1,23E−3	7,87E−5	2,93E−6	1,31E−3	3,19E−4	MND	MND	MND	MND	MND	MND	MND	MND	8,57E−7	2,82E−6	7,21E−5	2,02E−7	−1,21E−4
POCP (“smog”)	kg C2H4e	1,63E−4	1,47E−5	4,19E−7	1,78E−4	2,49E−5	MND	MND	MND	MND	MND	MND	MND	MND	5,01E−7	9,28E−7	8,28E−6	7,64E−8	−5,66E−5
ADP-elements	kg Sbe	2,97E−6	2,21E−7	3,71E−8	3,23E−6	3,33E−6	MND	MND	MND	MND	MND	MND	MND	MND	5,03E−9	1,7E−7	1,3E−6	2,41E−9	−7,17E−8
ADP-fossil	MJ	9,06E0	3,97E−1	3,51E−1	9,81E0	1,44E0	MND	MND	MND	MND	MND	MND	MND	MND	4,54E−2	1,01E−1	3,25E−1	7,36E−3	−5,33E−1