

# Environmental Product Declaration



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

## Bending welded wire reinforcement, tunnel segment reinforcement and welded mesh

from

**Société Nouvelle SOTRALENTZ CONSTRUCTION**

The logo for SOTRALENTZ CONSTRUCTION, featuring the company name in a bold, blue, sans-serif font with a horizontal line underneath.

Programme:

The International EPD® System, [www.environdec.com](http://www.environdec.com)

Programme operator:

EPD International AB

EPD registration number:

EPD-IES-0024811

Publication date:

2025-06-20

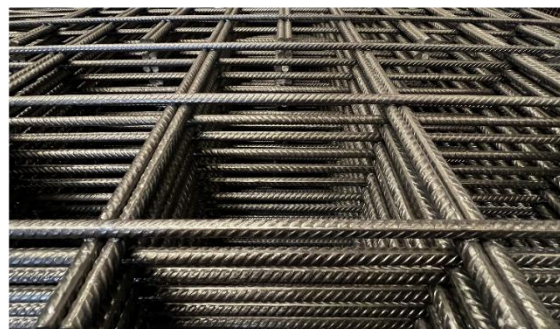
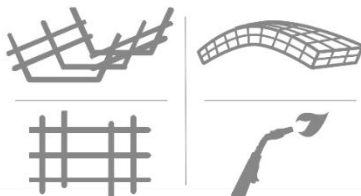
Valid until:

2030-06-20

Type of EPD :

EPD of multiple products (Welded mesh, Bending Welded wire reinforcement and tunnel segment reinforcement), based on the average results of the product group

*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](http://www.environdec.com)*



## General information

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

<b>Accountabilities for PCR, LCA and independent, third-party verification</b>
<b>Product Category Rules (PCR)</b>
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): 2019:14 Construction products (EN 15804+A2) 1.3.4
PCR review was conducted by: <i>The Technical Committee of the International EPD System. A full list of members available on <a href="http://www.environdec.com">www.environdec.com</a>. The review panel may be contacted via <a href="mailto:info@environdec.com">info@environdec.com</a>. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR moderator or PCR committee and if so were excused from the review.</i>
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: Estean 567 rue Maréchal Lyautey 83220 Le Pradet France
<b>Third-party verification</b>
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:  <input checked="" type="checkbox"/> EPD verification by individual verifier  Third-party verifier: Lees-Perasso Étienne, TIDE  Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier:  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation

factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

## Company information

Owner of the EPD: Société Nouvelle Sotralentz Construction

Contact: Pierre Huder, Société Nouvelle Sotralentz Construction

Description of the organisation: Spin-off from the metallurgy branch of the Group, Société Nouvelle SOTRALENTZ CONSTRUCTION is today one of the major players in the field of large size and customized welded meshes: welded meshes in stock or special, coils and bars, Bending welded wire reinforcement, tunnel segment reinforcement and welded mesh, etc.

Since its creation, the company Société Nouvelle SOTRALENTZ CONSTRUCTION has cultivated the values of quality and know-how, which have been transmitted from generation to generation. This tradition has enabled it to develop a true quality policy within each subsidiary over the years.

Product-related or management system-related certifications:

Produkt Certification , NFA 35-080-2, NFA 35-027, DIN 488, NEN 6008, NBN A 24-301, SIA 262, EN ISO 17660-1 et EN ISO 17660-2

Name and location of production site(s): 2A, Rue de Sarreguemines, 67320 Drulingen, France

## Product information

Product name: Bending welded wire reinforcement, tunnel segment reinforcement and welded mesh

Product identification:

-Welded mesh

-Bending Welded wire reinforcement

-Tunnel segment reinforcement

Product description: steel frames for concrete reinforcement

UN CPC code: NAF code or APE: 2593Z

Geographical scope: The products are manufactured in France (A3). The raw materials are produced and transported from France and Europe (A1-A2). The distribution, construction, use and end-of-life were modelled based on the European market (A4-A5; B1-B7; C1-C4 and D)..

## LCA information

Functional unit : Reinforcing concrete with 1000 kg of reinforcing steel for a reference service life of 100 years.

Reference service life: 100 years

Time representativeness: Data for the production process, the transport of raw materials (A2) and the transport to construction sites is based on average data for the production year 2024.

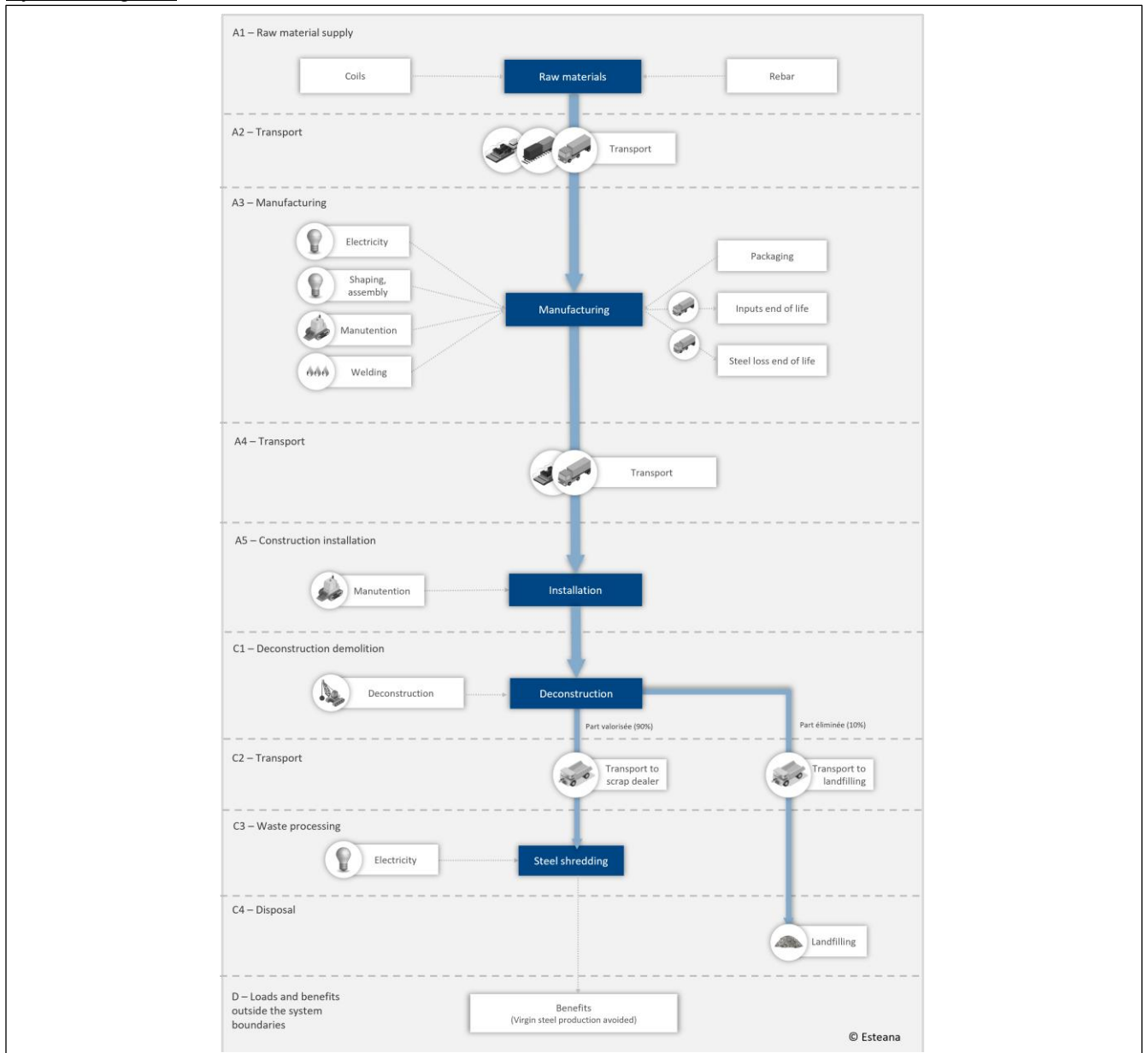
Data for supply mix is based on average data from 2021, 2022, 2023 and 2024 years.

Database(s) and LCA software used: The background data are based on ecoinvent 3.11 (system model: allocation, cut-off, EN 15804 ), released in 2024.

Description of system boundaries: Cradle to grave and module D (A + B + C + D).

The system boundaries have been set in compliance with NF EN 15804+A2, in particular with the 'modularity' principle (processes are assigned to the module in which they take place) and the 'polluter pays' principle (waste treatment processes are assigned to the processes that generate the waste).

System diagram:



More information:

Cut-off criteria: The cut-off rules set out in standard NF EN 15804+A2 have also been respected (1% per process, 5% per module, in terms of mass and primary energy consumption).

Allocation: The allocation rules set out in standard NF EN 15804+A2 have been complied with:

- Allocation avoided wherever possible;
- Allocation based on physical properties (e.g. mass, volume) when the difference in revenue generated by the co-products is small;
- In all other cases, allocation based on economic values;
- Material flows with specific inherent properties, e.g. energy content, elemental composition (e.g. biogenic carbon content), always assigned to reflect physical flows, regardless of the process assignment chosen.

The data for A3 production sites has been reduced to the functional unit per division, since there is a proportional relationship between the consumption dedicated to the products and manufacturing volumes.

Average France electricity mix is used for A3 consumption with a GWP-GHG impact of 0,0775 kgCO<sub>2</sub>eq/kWh.

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

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EU27	EU27	FR	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27
Specific data used	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-0,06% / +2,91%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%					-	-	-	-	-	-	-	-	-	-	-	-

## Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Reinforcing steel	1000	100%	0%
TOTAL	1000	100%	0%
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Lifting sling	0,73	0%	0%
Wood	0,198	0%	41,6%
TOTAL	0,928	0%	8,9%

The product does not contain more than 0.1% by mass of a substance classified as a Substance of Very High Concern (SVHC) according to the candidate list provided by Annex XIV of the REACH Regulation.

# Results of the environmental performance indicators

## Mandatory impact category indicators according to EN 15804

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	4,59E+02	4,89E+01	6,07E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,40E+00	2,18E+01	8,99E+00	6,26E-01	0,00E+00
GWP-biogenic	kg CO <sub>2</sub> eq.	2,45E+01	2,88E-02	3,04E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,37E-04	1,41E-02	3,05E-01	2,81E-04	0,00E+00
GWP-luluc	kg CO <sub>2</sub> eq.	3,76E-01	1,82E-02	6,22E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,50E-04	7,37E-03	2,68E-02	3,58E-04	0,00E+00
GWP-total	kg CO <sub>2</sub> eq.	4,84E+02	4,90E+01	6,37E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,40E+00	2,19E+01	9,32E+00	6,26E-01	0,00E+00
ODP	kg CFC 11 eq.	5,96E-05	1,11E-06	9,01E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,53E-08	4,76E-07	1,50E-07	1,74E-08	0,00E+00
AP	mol H <sup>+</sup> eq.	1,72E+00	1,19E-01	5,42E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,93E-02	4,69E-02	4,47E-02	4,38E-03	0,00E+00
EP-freshwater	kg P eq.	7,40E-02	3,58E-03	1,96E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,41E-04	1,52E-03	8,29E-03	5,48E-05	0,00E+00
EP-marine	kg N eq.	3,44E-01	3,13E-02	2,52E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,83E-02	1,13E-02	7,89E-03	1,68E-03	0,00E+00
EP-terrestrial	mol N eq.	4,21E+00	3,38E-01	2,76E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,00E-01	1,22E-01	6,76E-02	1,84E-02	0,00E+00
POCP	kg NMVOC eq.	1,30E+00	1,99E-01	8,27E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,99E-02	7,44E-02	2,17E-02	6,63E-03	0,00E+00
ADP-minerals&metals*	kg Sb eq.	3,14E-03	1,46E-04	2,20E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,58E-06	7,66E-05	1,97E-05	9,32E-07	0,00E+00
ADP-fossil*	MJ	1,13E+04	7,42E+02	7,90E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,73E+01	3,10E+02	2,09E+02	1,53E+01	0,00E+00
WDP*	m <sup>3</sup>	1,50E+02	4,31E+00	2,10E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,47E-01	1,65E+00	5,39E+00	6,73E-01	0,00E+00
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption															

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

## Additional mandatory and voluntary impact category indicators

### Results per functional or declared unit

Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG <sup>1</sup>	kg CO <sub>2</sub> eq.	4,59E+02	4,89E+01	6,07E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,40E+00	2,19E+01	9,03E+00	6,26E-01	0,00E+00

Disclaimers shall be added, if required by EN 15804.

## Resource use indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	1,55E+03	1,14E+01	4,97E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,59E-01	5,12E+00	4,62E+01	1,43E-01	0,00E+00
PERM	MJ	4,07E+01	0,00E+00	-1,82E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,59E+03	1,14E+01	-1,33E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,59E-01	5,12E+00	4,62E+01	1,43E-01	0,00E+00
PENRE	MJ	1,11E+04	7,42E+02	7,90E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,73E+01	3,10E+02	2,09E+02	1,53E+01	0,00E+00
PENRM	MJ	4,46E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,16E+04	7,42E+02	7,90E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,73E+01	3,10E+02	2,09E+02	1,53E+01	0,00E+00
SM	kg	8,29E+02	3,13E-01	3,28E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,37E-02	1,41E-01	2,11E-02	3,81E-03	0,00E+00
RSF	MJ	3,20E+01	4,13E-03	8,60E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,21E-05	1,85E-03	9,22E-05	7,96E-05	0,00E+00
NRSF	MJ	1,07E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m <sup>3</sup>	4,79E+00	1,00E-01	5,10E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,67E-03	3,80E-02	1,25E-01	1,58E-02	0,00E+00
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water															

## Waste indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	2,20E-01	2,49E-02	3,56E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,18E-04	9,56E-03	6,90E-03	2,90E-04	0,00E+00
Non-hazardous waste disposed	kg	2,28E+02	7,18E+01	4,89E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,51E-01	1,85E+01	2,86E+00	1,00E+02	0,00E+00

<sup>1</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

Radioactive waste disposed	kg	9,43E-02	2,04E-04	8,28E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,99E-06	9,25E-05	1,51E-03	2,24E-06	0,00E+00
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## Output flow indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	3,60E+01	8,96E-03	4,39E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,55E-04	3,76E-03	9,00E+02	1,66E-04	0,00E+00
Materials for energy recovery	kg	4,02E-03	3,28E-05	1,13E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,14E-07	2,00E-05	1,80E-06	2,95E-07	0,00E+00
Exported energy, electricity	MJ	5,15E+01	1,25E-01	3,75E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,71E-03	6,17E-02	9,99E-01	9,95E-04	0,00E+00
Exported energy, thermal	MJ	7,48E+01	1,33E-01	1,78E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,27E-03	7,56E-02	1,17E-02	5,28E-04	0,00E+00

## Other environmental performance indicators

### References

General Programme Instructions of the International EPD® System. Version 5.0.1

PCR 2019:14. Construction products (EN 15804:A2) (1.3.4)

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

ISO 14025:2009: Environmental labels and declarations - Type III environmental product declarations

ISO 14040:2006, Environmental management - Life cycle assessment – Principles

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

