

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Alumi Combi Light Screen 1190x2006



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**abstracta**

The Norwegian EPD Foundation

**Owner of the declaration:**

Abstracta AB

**Product:**

Alumi Combi Light Screen 1190x2006

**Declared unit:**

1 pcs

**This declaration is based on Product Category Rules:**

CEN Standard EN 15804:2012+A2:2019 serves as core PCR  
NPCR 026:2022 Part B for Furniture

**Program operator:**

The Norwegian EPD Foundation

**Declaration number:**

**Registration number:**

**Issue date:**

**Valid to:**

**EPD software:**

LCAno EPD generator ID: 569975

## General information

### Product

Alumi Combi Light Screen 1190x2006

### Program operator:

The Norwegian EPD Foundation  
Post Box 5250 Majorstuen, 0303 Oslo, Norway  
Phone: +47 977 22 020  
web: [www.epd-norge.no](http://www.epd-norge.no)

### Declaration number:

### This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR  
NPCR 026:2022 Part B for Furniture

### Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

### Declared unit:

1 pcs Alumi Combi Light Screen 1190x2006

### Declared unit (cradle to gate) with option:

A1-A3,A4,A5,B2,B3,B4,C1,C2,C3,C4,D

### Functional unit:

This EPD considers one pcs of Alumi Combi Light Screen. The product is a sound absorbing floor screen with a whiteboard combined. One side is upholstered and the other is completely covered with a whiteboard. At the end of its life it can be dismantled and recycled or returned to Abstracta for reuse or recycling.

### General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Norway's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Norway, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools

### Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

### Owner of the declaration:

Abstracta AB  
Contact person: Tim Wisme  
Phone:  
e-mail: [tim.wisme@abstracta.se](mailto:tim.wisme@abstracta.se)

### Manufacturer:

Abstracta AB

### Place of production:

Abstracta AB  
Lammengatan 2  
363 45 Lammhult, Sweden

### Management system:

ISO 9001, 14001 och 45001

### Organisation no:

556046-3852

### Issue date:

### Valid to:

### Year of study:

2023

### Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

### Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.

Developer of EPD: Tim Wisme

Reviewer of company-specific input data and EPD: Erik Graesen

### Approved:

## Product

### Product description:

Nina Jobs designed Alumi Combi Light with the aim of encouraging colleagues to have spontaneous meetings wherever they want. The screens, which function both as sound absorbers and writing boards, are mounted on wheels for easy portability. The versatile writing boards have the same understated look as the other sound-absorbing screens in the Alumi series, allowing them to be combined in harmonious unity.

One side of the Alumi Combi Light Screen is upholstered in fabric. The other side with an e3 ceramic steel whiteboard from PolyVision.

Visit the product page for more information: <https://abstracta.se/product/alumi-combi-sound-absorbing-writingboard/>

### Product specification

The floor screen consists of a sound-absorbent filling mounted within a solid frame. One side of the Alumi Combi Screen is upholstered in fabric. The other side with an e3 ceramic steel whiteboard. Choose your upholstery from a wide variety of options.

This EPD includes the following variants:

Alumi Combi Light 1190x1806

Alumi Combi Light 1190x2006

Alumi Combi Light 806x1806

Alumi Combi Light 806x2006

It also includes the following options:

Alumi Combi Light 1190x1806 with polyester upholstery

See the product sheet for more information: <https://lammhults.sharepoint.com/:b/s/abs-webpage/EdPWNCsxlBFij6fDiTtHpN8BQPNRjHD0GdfxfOra9pIIPQ?e=0vcUgX>

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Filt	2,39	5,85	1,19	50,00
Glue for wood	0,47	1,16	0,00	0,00
Insulation - stone wool	6,70	16,44	1,08	16,15
Plastic - Polypropylene (PP)	0,27	0,67	0,00	0,00
Powder coating	0,01	0,03	0,00	0,00
Tape	0,22	0,54	0,00	0,00
Textile - Wool	1,12	2,76	0,00	0,00
Unverified data	9,24	22,64	0,30	3,24
Wood - Medium Density Fibreboard (MDF)	7,58	18,58	0,00	0,00
Metal - Aluminium	10,04	24,62	0,00	0,00
Metal - Stainless steel	0,02	0,04	0,00	21,83
Metal - Steel	2,72	6,66	0,00	0,00
<b>Total</b>	<b>40,78</b>	<b>100,00</b>	<b>2,58</b>	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Pallet	0,86	22,79	0,00	0,00
Packaging - Paper	0,01	0,19	0,00	0,00
Packaging - Polystyrene	0,17	4,40	0,00	0,00
Recycled cardboard	2,74	72,62	2,74	100,00
<b>Total incl. packaging</b>	<b>44,56</b>	<b>100,00</b>	<b>5,32</b>	

### Technical data:

The dimensions of Alumi Combi Light Screen are 1190x2006x63, but other sizes are also available. The product does not include a leg set, but in this EPD a standard choice for legs has been included.

For more information on the technical data of Alumi Combi Light Screen, see the technical data sheet: <https://lammhults.sharepoint.com/:b/s/abs-webpage/EVG5OSXsEwtMvIptvAXvi8BZokBd966-FyAkBR1igZaTg?e=A2L40u>

### Market:

The product is available worldwide. The distance to the market is based on shipping to Scandinavia or Western Europe.

### Reference service life, product

At least 15 years, with a 5-year warranty and a 10-year spare part guarantee.

### Reference service life, building

Assumed to be 60 years.

### LCA: Calculation rules

#### Declared unit:

1 pcs Alumi Combi Light Screen 1190x2006

#### Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

#### Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

#### Data quality:

Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Materials	Source	Data quality	Year
Filt	S-P-04908	EPD	2020
Glue for wood	ecoinvent 3.6	Database	2019
Insulation - stone wool	NEPD-4117-3336-EN	EPD	2021
Metal - Aluminium	ecoinvent 3.6	Database	2019
Metal - Aluminium	S-P-07377	EPD	2021
Metal - Stainless steel	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Packaging - Pallet	ecoinvent 3.6	Database	2019
Packaging - Paper	ecoinvent 3.6	Database	2019
Packaging - Polystyrene	ecoinvent 3.6	Database	2019
Plastic - Polypropylene (PP)	ecoinvent 3.6	Database	2019
Powder coating	Ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Tape	Ecoinvent 3.6	Database	2019
Textile - Wool	Modified ecoinvent 3.6	Database	2019
Unverified data	ecoinvent 3.6	Database	2019
Wood - Medium Density Fibreboard (MDF)	ecoinvent 3.6	Database	2019

**System boundaries (X=included, MND=module not declared, MNR=module not relevant)**

Product stage			Construction installation stage		Use stage						End of life stage				Beyond the system boundaries	
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MNR	X	X	X	MNR	MNR	MNR	X	X	X	X	X

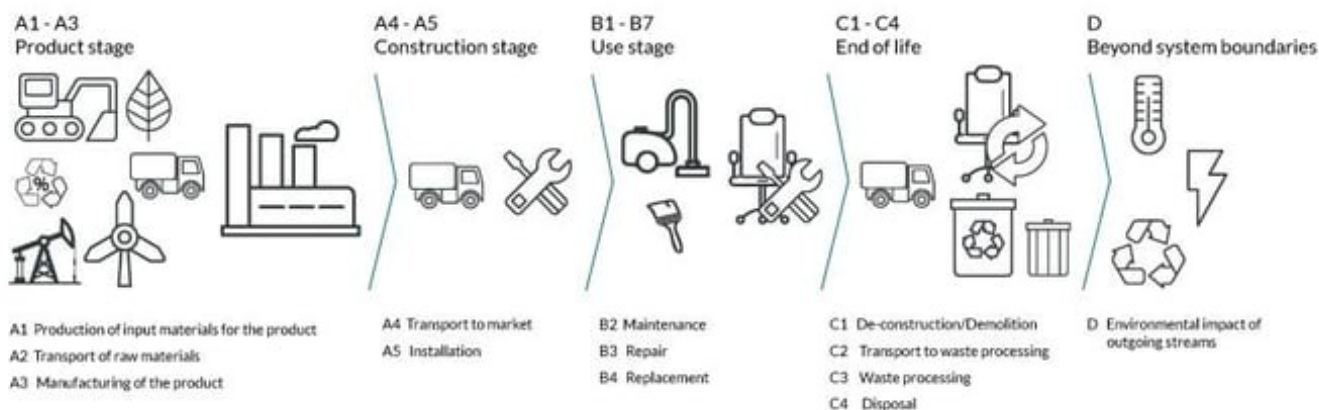
**System boundary:**

The EPD is a cradle-to-grave analysis, A1-D, where some B-stages (use phase) that were assumed to be neglectable are not included.

The A1-A4 stages includes the extraction and production of raw materials, transportation to the production site, the production process itself, and an estimated transport distance to the market. A5 includes the generated waste from the packaging of the product after assembly at the customer.

The only B stage that is assumed to be relevant is B2. This stage includes assumptions on how the customer takes care of the product according to Abstracta's care instructions.

The C- and D-stages includes the use of materials and energy for deconstruction, the transport to waste management, the waste processes, disposal of materials that cannot be processed, and the potential of reuse, recovery, and recycling of the product.



**Additional technical information:**

## Care instructions

### Fabric

To maintain the color and appearance of the fabric, it should be vacuum cleaned regularly with a soft nozzle.

#### Stain Removal for Polyester:

- Use colorless towel or a washcloth to absorb as much as possible of still-moist stain. Dried stains should be vacuumed.
- Wet the stain sparingly with a white pure cotton cloth, warm water and possibly a little pH-neutral cleaner.
- Dab the area with a dry cloth or colorless paper towel to absorb the moisture and stain.
- Repeat this process until the stain is gone.
- On the final repetition, use only clean water with no detergent added.
- Finish by dabbing up moisture with a dry cloth or paper towel.

#### Stain Removal for wool:

Dab or wipe gently with a damp cloth.

### Whiteboards and glass boards

Remove any protective film from the writing board and thoroughly clean the surface before first use. Moderately-used writing boards should then be cleaned a couple of times a week. The board must be absolutely dry when used. Use only pens intended for whiteboards. Replace the felt on the eraser on a regular basis.

#### Clean as follows:

- Wipe with approved cleaning fluid intended for whiteboards.
- Then wash away residual cleaning solution with clean lukewarm water.
- Wipe dry with a cloth.
- Repeat if necessary.
- Easier soiled paintings can be cleaned with only lukewarm water.
- Wipe dry with a cloth.

Note: Avoid detergents that are not intended for whiteboards (e.g. soap or detergent) when they can leave residues which hinder erasure.

Abstracta offers a reuse service for our clients. This involves us collecting worn-out products to facilitate reuse, renovation, or recycling. In order to make circularity easier, most of our products feature replaceable parts, simplifying repair. We do this in the hope that we can help contribute in the transition to a more sustainable future. Read more about the service here: <https://abstracta.se/story/abstracta-is-introducing-a-new-recycling-service-for-used-products-abstracta/> or contact our Sales Support for more information. Otherwise, try to ensure that the product can be reused when possible, or else, dismantle it so that as much of the materials can be recycled as possible.

## LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Some assumptions have been made regarding the products lifetime after leaving the factory gates. The product is assumed to be transported to a customer in Scandinavia, Germany, the UK, or France (88% of sales in 2023). An average distance to the customer has been calculated through this data. In the A5 phase, the packaging of the product becomes waste, and the impacts are added automatically according to assumptions made in the EPD tool on waste handling on-site. In the use stage, the assumption is that the customer takes care of the product by vacuuming it for 1 minute/m<sup>2</sup> of the product, with a 600 W vacuum, on a yearly basis. For the end-of-life stage of the product, it has been assumed that there is a 50 km distance from the customer to a waste terminal. The rest of the values are automatically filled in by the tool. For the D-stage, automatic values are filled in, according to generic data.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Ship, Ferry, Sea (km)	50,0 %	8	0,034	l/tkm	0,27
Truck, 16-32 tonnes, EURO 6 (km)	36,7 %	502	0,043	l/tkm	21,58
Assembly (A5)		Unit	Value		
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	2,74			
Waste, packaging, polystyrene, for incineration (kg)	kg	0,17			
Waste, packaging, Pallet, EUR wooden pallet, single use, average treatment (kg)	kg	0,86			
Waste, packaging, kraft paper, unbleached, to average treatment (kg)	kg	0,01			
Maintenance (B2)		Unit	Value		
Electricity, Nordic (kWh)	kWh/DU	0,38			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, EURO 6 (km)	36,7 %	50	0,043	l/tkm	2,15
Waste processing (C3)		Unit	Value		
Copper to recycling (kg)	kg	11,02			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	10,86			
Waste treatment per kg Polypropylene (PP), incineration with fly ash extraction - C3 (kg)	kg	0,27			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	0,12			
Waste treatment per kg Glass, incineration with fly ash extraction (kg)	kg	1,11			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	1,12			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	7,58			
Waste treatment per kg Hazardous waste, incineration (kg)	kg	0,47			
Waste treatment per kg Scrap aluminium, incineration with fly ash extraction (kg)	kg	2,61			
Waste treatment per kg Polyethylene terephthalate, PET, incineration with fly ash extraction - C3 (kg)	kg	2,39			

Disposal (C4)	Unit	Value			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	7,18			
Landfilling of ashes from incineration of Polypropylene, PP, process per kg ashes and residues - C4 (kg)	kg	0,01			
Landfilling of ashes from incineration of Non-hazardous waste, process per kg ashes and residues - C4 (kg)	kg	0,03			
Landfilling of ashes from incineration of Glass, process of ashes and residues (kg)	kg	1,11			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,06			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,09			
Waste, Stone wool, to landfil (kg)	kg	6,70			
Landfilling of ashes from incineration of Hazardous waste, from incineration (kg)	kg	0,09			
Landfilling of ashes and residues from incineration of Scrap aluminium (kg)	kg	2,33			
Landfilling of non-hazardous waste (kg)	kg	0,11			
Landfilling of ashes from incineration of Polyethylene terephthalate, PET, process per kg ashes and residues - C4 (kg)	kg	0,05			

Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of primary steel with net scrap (kg)	kg	8,75			
Substitution of electricity, in Norway (MJ)	MJ	9,33			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	141,15			
Substitution of primary aluminium with net scrap (kg)	kg	0,27			

**LCA: Results**

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environmental impact							
Indicator	Unit	A1-A3	A4	A5	B2	B3	
GWP-total	kg CO <sub>2</sub> -eq	2,48E+02	3,69E+00	6,56E+00	5,46E-02	0	
GWP-fossil	kg CO <sub>2</sub> -eq	2,29E+02	3,69E+00	5,97E-01	5,09E-02	0	
GWP-biogenic	kg CO <sub>2</sub> -eq	1,29E+01	1,52E-03	5,97E+00	9,30E-04	0	
GWP-luluc	kg CO <sub>2</sub> -eq	5,70E+00	1,32E-03	2,13E-05	2,79E-03	0	
ODP	kg CFC11 -eq	2,50E-05	8,35E-07	1,35E-08	5,51E-09	0	
AP	mol H+ -eq	2,65E+00	1,18E-02	4,60E-04	2,35E-04	0	
EP-FreshWater	kg P -eq	1,92E-02	2,93E-05	6,84E-07	3,37E-06	0	
EP-Marine	kg N -eq	4,26E-01	2,40E-03	1,80E-04	3,71E-05	0	
EP-Terrestrial	mol N -eq	9,11E+00	2,68E-02	1,94E-03	4,98E-04	0	
POCP	kg NMVOC -eq	7,59E-01	9,82E-03	5,15E-04	1,17E-04	0	
ADP-minerals&metals <sup>1</sup>	kg Sb-eq	2,52E-03	1,01E-04	1,47E-06	7,92E-07	0	
ADP-fossil <sup>1</sup>	MJ	2,89E+03	5,57E+01	9,29E-01	1,38E+00	0	
WDP <sup>1</sup>	m <sup>3</sup>	1,62E+04	5,35E+01	1,31E+00	1,06E+02	0	

Indicator	Unit	B4	C1	C2	C3	C4	D
GWP-total	kg CO <sub>2</sub> -eq	0	0	3,64E-01	2,16E+01	2,85E-01	-1,29E+01
GWP-fossil	kg CO <sub>2</sub> -eq	0	0	3,64E-01	7,14E+00	2,01E-01	-1,29E+01
GWP-biogenic	kg CO <sub>2</sub> -eq	0	0	1,51E-04	1,45E+01	8,35E-02	-1,80E-02
GWP-luluc	kg CO <sub>2</sub> -eq	0	0	1,30E-04	3,14E-04	5,04E-05	-7,81E-02
ODP	kg CFC11 -eq	0	0	8,24E-08	1,44E-07	5,40E-08	-5,96E-02
AP	mol H+ -eq	0	0	1,05E-03	4,64E-03	1,28E-03	-7,09E-02
EP-FreshWater	kg P -eq	0	0	2,91E-06	3,00E-05	2,54E-06	-7,58E-04
EP-Marine	kg N -eq	0	0	2,07E-04	1,79E-03	5,77E-04	-1,42E-02
EP-Terrestrial	mol N -eq	0	0	2,31E-03	1,90E-02	4,91E-03	-1,48E-01
POCP	kg NMVOC -eq	0	0	8,87E-04	4,88E-03	1,44E-03	-6,25E-02
ADP-minerals&metals <sup>1</sup>	kg Sb-eq	0	0	1,01E-05	4,89E-06	2,48E-06	-1,71E-04
ADP-fossil <sup>1</sup>	MJ	0	0	5,50E+00	6,59E+00	3,95E+00	-1,23E+02
WDP <sup>1</sup>	m <sup>3</sup>	0	0	5,32E+00	2,01E+01	1,13E+01	-1,02E+03







GWP-total = Global Warming Potential total; 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

"Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 0,009"







\*INA Indicator Not Assessed

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

**Remarks to environmental impacts**

Additional environmental impact indicators							
Indicator	Unit	A1-A3	A4	A5	B2	B3	
 PM	Disease incidence	2,20E-05	2,25E-07	5,66E-09	1,25E-09	0	
 IRP <sup>2</sup>	kgBq U235 -eq	8,53E+00	2,43E-01	3,71E-03	3,14E-02	0	
 ETP-fw <sup>1</sup>	CTUe	5,14E+03	4,12E+01	1,22E+00	1,72E+00	0	
 HTP-c <sup>1</sup>	CTUh	5,13E-07	0,00E+00	8,10E-11	4,00E-11	0	
 HTP-nc <sup>1</sup>	CTUh	3,93E-06	4,51E-08	3,58E-09	1,06E-09	0	
 SQP <sup>1</sup>	dimensionless	-4,34E+04	3,87E+01	5,80E-01	1,04E+00	0	











Indicator	Unit	B4	C1	C2	C3	C4	D
 PM	Disease incidence	0	0	2,23E-08	6,85E-08	2,28E-08	-1,38E-06
 IRP <sup>2</sup>	kgBq U235 -eq	0	0	2,40E-02	2,48E-02	1,63E-02	-1,73E-01
 ETP-fw <sup>1</sup>	CTUe	0	0	4,08E+00	4,24E+01	3,08E+00	-6,37E+02
 HTP-c <sup>1</sup>	CTUh	0	0	0,00E+00	2,07E-09	1,04E-10	-5,36E-08
 HTP-nc <sup>1</sup>	CTUh	0	0	4,46E-09	3,34E-08	3,12E-09	8,75E-07
 SQP <sup>1</sup>	dimensionless	0	0	3,85E+00	2,11E+00	8,63E+00	-8,46E+01

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)











"Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 0,009"

\*INA Indicator Not Assessed

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator
2. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Resource use								
Indicator		Unit	A1-A3	A4	A5	B2	B3	
	PERE	MJ	1,85E+03	7,94E-01	1,69E-02	1,35E+00	0	
	PERM	MJ	1,52E+02	0,00E+00	-2,81E+01	0,00E+00	0	
	PERT	MJ	2,00E+03	7,94E-01	-2,80E+01	1,35E+00	0	
	PENRE	MJ	2,82E+03	5,57E+01	9,29E-01	1,40E+00	0	
	PENRM	MJ	1,19E+02	0,00E+00	-6,42E+00	0,00E+00	0	
	PENRT	MJ	2,94E+03	5,57E+01	-5,49E+00	1,40E+00	0	
	SM	kg	5,32E+00	0,00E+00	0,00E+00	0,00E+00	0	
	RSF	MJ	1,58E+00	2,84E-02	5,32E-04	1,37E-02	0	
	NRSF	MJ	2,01E+01	1,01E-01	3,55E-03	0,00E+00	0	
	FW	m <sup>3</sup>	5,98E+00	5,93E-03	5,85E-04	6,16E-03	0	




  

Indicator		Unit	B4	C1	C2	C3	C4	D
	PERE	MJ	0	0	7,88E-02	8,77E-01	8,58E-02	-8,99E+01
	PERM	MJ	0	0	0,00E+00	-7,32E+01	0,00E+00	0,00E+00
	PERT	MJ	0	0	7,88E-02	-7,24E+01	8,58E-02	-8,99E+01
	PENRE	MJ	0	0	5,50E+00	6,62E+00	3,95E+00	-1,23E+02
	PENRM	MJ	0	0	0,00E+00	-7,89E+01	0,00E+00	0,00E+00
	PENRT	MJ	0	0	5,50E+00	-7,23E+01	3,95E+00	-1,23E+02
	SM	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	RSF	MJ	0	0	2,82E-03	1,94E-02	2,04E-03	3,31E-01
	NRSF	MJ	0	0	1,01E-02	0,00E+00	9,59E-02	5,86E+00
	FW	m <sup>3</sup>	0	0	5,88E-04	7,75E-03	3,90E-03	-1,68E-01




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 materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 0,009"

\*INA Indicator Not Assessed

End of life - Waste								
Indicator		Unit	A1-A3	A4	A5	B2	B3	
	HWD	kg	8,89E-01	2,87E-03	0,00E+00	1,29E-04	0	
	NHWD	kg	6,97E+01	2,69E+00	3,77E+00	8,54E-03	0	
	RWD	kg	1,01E-01	3,80E-04	0,00E+00	1,44E-05	0	





  

Indicator		Unit	B4	C1	C2	C3	C4	D
	HWD	kg	0	0	2,84E-04	0,00E+00	1,07E+01	-4,05E-02
	NHWD	kg	0	0	2,68E-01	1,71E+00	7,02E+00	-4,91E+00
	RWD	kg	0	0	3,75E-05	0,00E+00	2,36E-05	-1,60E-04






HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

\*Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 0,009"

\*INA Indicator Not Assessed

End of life - Output flow								
Indicator		Unit	A1-A3	A4	A5	B2	B3	
	CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0	
	MFR	kg	8,17E-01	0,00E+00	2,56E+00	0,00E+00	0	
	MER	kg	7,06E-01	0,00E+00	1,02E+00	0,00E+00	0	
	EEE	MJ	4,89E-01	0,00E+00	1,04E+00	0,00E+00	0	
	EET	MJ	7,40E+00	0,00E+00	1,58E+01	0,00E+00	0	

Indicator		Unit	B4	C1	C2	C3	C4	D
	CRU	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	MFR	kg	0	0	0,00E+00	1,10E+01	2,51E-04	0,00E+00
	MER	kg	0	0	0,00E+00	2,65E+01	2,03E-06	0,00E+00
	EEE	MJ	0	0	0,00E+00	9,41E+00	1,75E-05	0,00E+00
	EET	MJ	0	0	0,00E+00	1,42E+02	2,65E-04	0,00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

\*Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 0,009"

\*INA Indicator Not Assessed

Biogenic Carbon Content		
Indicator	Unit	At the factory gate
Biogenic carbon content in product	kg C	3,51E+00
Biogenic carbon content in accompanying packaging	kg C	3,16E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>

## Additional requirements

### Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Source	Amount	Unit
Electricity, Sweden (kWh)	ecoinvent 3.6	54,94	g CO <sub>2</sub> -eq/kWh

### Dangerous substances

The product contains no substances given by the REACH Candidate list.

### Indoor environment

## Additional Environmental Information

### Key Environmental Indicators

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO <sub>2</sub> -eq	247,53	3,69	280,15	267,20
Total energy consumption	MJ	4688,03	56,64	4765,64	4558,64
Amount of recycled materials	%	10,47			

### Additional environmental impact indicators required in NPCR Part A for construction products

Indicator	Unit	A1-A3	A4	A5	B2	B3
GWPIOBC	kg CO <sub>2</sub> -eq	2,67E+02	3,69E+00	5,97E-01	7,40E-02	0

Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	3,64E-01	8,84E+00	2,89E-01	-1,76E+01

GWP-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

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NPCR Part A: Construction products and services. Ver. 2.0. March 2021, EPD-Norge.

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