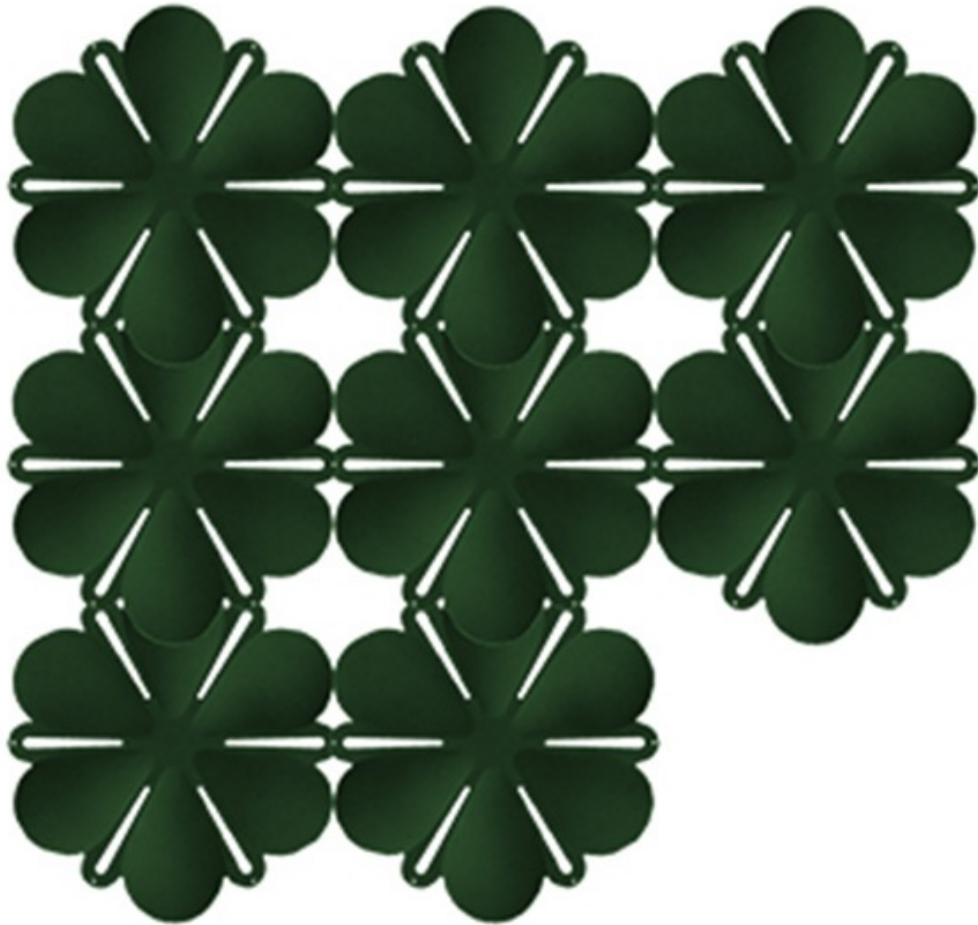


Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Airbloom 475x510 3 pcs



abstracta

The Norwegian EPD Foundation

Owner of the declaration:

Abstracta AB

Product:

Airbloom 475x510 3 pcs

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:

NEPD-4841-4092-EN

Registration number:

NEPD-4841-4092-EN

Issue date: 28.08.2023

Valid to: 28.08.2028

EPD Software:

LCA.no EPD generator ID: 68040

General information

Product

Airbloom 475x510 3 pcs

Program operator:

Post Box 5250 Majorstuen, 0303 Oslo, Norway
The Norwegian EPD Foundation
Phone: +47 23 08 80 00
web: post@epd-norge.no

Declaration number: NEPD-4841-4092-EN

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 Airbloom 475x510 3 pcs

Declared unit (cradle to gate) with option:

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

Functional unit:

The product hangs in the room until its end-of-life, after which 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

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: 28.08.2023

Valid to: 28.08.2028

Year of study:

2022

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:



Håkon Hauan, CEO EPD-Norge

Product

Product description:

Airbloom is a modular system built around the shape of a blooming flower. This product includes a variety of colours, which can be combined to create flexible hanging screens on walls and ceilings. The key feature of this product is the possibility of creating a more dynamic visual space while diffusing unpleasant sound reflections. For more information about the product, visit the product page <https://abstracta.se/product/airbloom/>.

Product specification

The products are made from compressed polyester with or without fabric.

| Materials | kg | % | Recycled share in material (kg) | Recycled share in material (%) |
|------------------------------|------|-------|---------------------------------|--------------------------------|
| Filt | 0,83 | 98,80 | 0,00 | 0,00 |
| Plastic - Polycarbonate (PC) | 0,01 | 1,20 | 0,00 | 0,00 |
| Total | 0,84 | | 0,00 | |

| Packaging | kg | % | Recycled share in material (kg) | Recycled share in material (%) |
|-----------------------|------|-------|---------------------------------|--------------------------------|
| Packaging - Cardboard | 0,11 | 24,89 | 0,00 | 0,00 |
| Recycled cardboard | 0,33 | 74,21 | 0,33 | 100,00 |
| Packaging - Plastic | 0,00 | 0,90 | 0,00 | 0,00 |
| Total incl. packaging | 1,28 | | 0,33 | |

Technical data:

The dimensions of Airbloom 192 900 00 are 475x510. The product includes 3 pieces, but 10 pieces is also available. This EPD is made for an Airbloom without fabric, but with fabric is also available. Note that adding this, changes the environmental impact of the product. An aluminium rail is available to hang the product from but is not included with the product.

For more information on the technical data of Airbloom, see the technical data sheet:

<https://www.dropbox.com/s/17ow7h511ox3phl/Technical%20Data%20Sheet%20Airbloom.pdf?dl=0>.

Market:

Available worldwide.

Reference service life, product

10 years

Reference service life, building

60 years

LCA: Calculation rules

Declared unit:

1 pcs Airbloom 475x510 3 pcs

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.

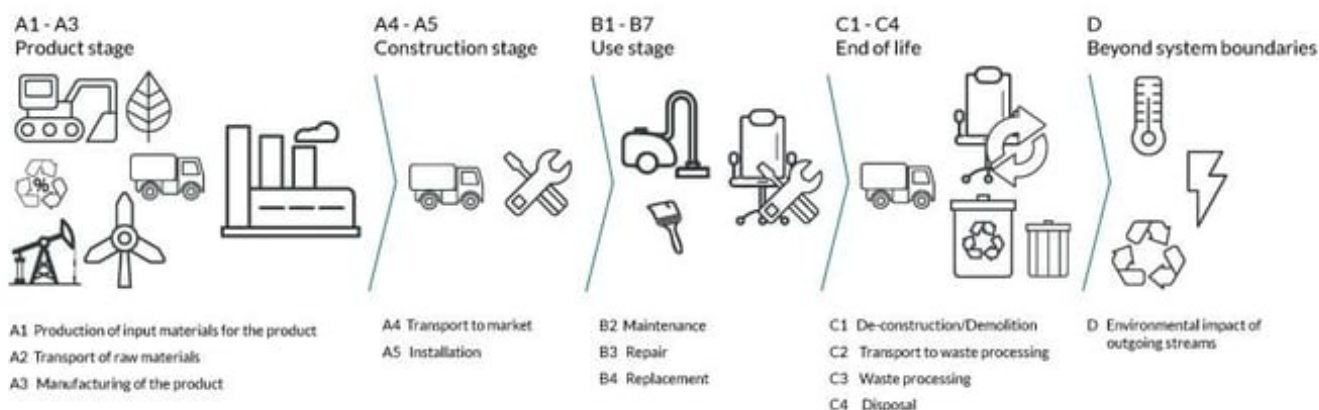
| Materials | Source | Data quality | Year |
|------------------------------|------------------------|--------------|------|
| Packaging - Plastic | ecoinvent 3.6 | Database | 2019 |
| Plastic - Polycarbonate (PC) | ecoinvent 3.6 | Database | 2019 |
| Packaging - Cardboard | Modified ecoinvent 3.6 | Database | 2019 |
| Recycled cardboard | Modified ecoinvent 3.6 | Database | 2019 |
| Filt | S-P-04908 | EPD | 2020 |

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 | MND | X | X | X | MND | MND | MND | X | X | X | X | X |

System boundary:

The analysis is a cradle-to-grave, 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, which 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:

To preserve the fabric colour and the appearance of the fabric, Airbloom should be vacuumed regularly with a soft nozzle.

Polyester Stain Removal: Use uncoloured paper towel or cloth to soak up as much as possible of the stain. Dried stains should be vacuumed. Moisten the stain lightly with a clean white cotton cloth, lukewarm water and possibly a small amount of pH-neutral detergent. Press a dry cloth or uncoloured paper towel against the fabric so that moisture and dirt are absorbed. Repeat moistening and soaking until the stain is gone. Use clean water without detergent at the last moistening. Finish with soaking.

Wool Stain Removal: Dab or wipe gently with a moist cloth.

Abstracta offers a take-back scheme for used products that our customers want to recycle. We can then reuse the components in the best, possible way. In this way, we can save some of the world's resources by reusing or refurbishing some products to avoid throwing away fully functional material or products. In cases where this is not possible, we instead recycle the materials. Read more about this here: <https://abstracta.se/story/abstracta-is-introducing-a-new-recycling-service-for-used-products-abstracta/>. 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, the UK or France (about 85% of sales in 2022). An average distance to the customer has been calculated through this data. In the construction phase (A5), the packaging of the product becomes waste, and the impacts were added automatically according to assumptions made in the EPD tool on waste handling by the customer or installer of the product. In the use stage the assumption is that the customer takes care of the product by vacuuming it on a yearly basis. For the end-of-life stage of the product, it has been assumed that there is 50 km from the customer to the waste terminal. The rest of the values for this stage are automatically filled in by the tool, according to other assumptions of disposal and waste processes. For the D-stage, where negative impacts from recycling and heat generation from waste incineration are added, 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 % | 7 | 0,034 | l/tkm | 0,24 |
| Truck, 16-32 tonnes, EURO 6 (km) | 36,7 % | 511 | 0,043 | l/tkm | 21,96 |
| Assembly (A5) | | Unit | Value | | |
| Waste, packaging, cardboard, 100 % recycled, to average treatment (kg) | kg | 0,33 | | | |
| Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg) | kg | 0,11 | | | |
| Waste, packaging, plastic film (LDPE), to average treatment - A5 (kg) | kg | 0,00 | | | |
| Maintenance (B2) | | Unit | Value | | |
| Electricity, Sweden (kWh) | kWh/DU | 0,05 | | | |
| 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 | | |
| Waste treatment per kg Plastics, Mixture, municipal incineration with fly ash extraction (kg) | kg | 0,01 | | | |
| Waste treatment per kg Polyethylene terephthalate, PET, incineration with fly ash extraction - C3 (kg) | kg | 0,83 | | | |
| Disposal (C4) | | Unit | Value | | |
| Landfilling of ashes from incineration of Plastics, Mixture, municipal incineration with fly ash extraction, process per kg ashes and residues - C4 (kg) | kg | 0,00 | | | |
| Landfilling of ashes from incineration of Polyethylene terephthalate, PET, process per kg ashes and residues - C4 (kg) | kg | 0,02 | | | |
| Benefits and loads beyond the system boundaries (D) | | Unit | Value | | |
| Substitution of electricity, in Norway (MJ) | MJ | 0,88 | | | |
| Substitution of thermal energy, district heating, in Norway (MJ) | MJ | 13,35 | | | |

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 ₂ -eq | 1,47E+00 | 1,08E-01 | 7,51E-01 | 2,75E-03 | 0 | |
| GWP-fossil | kg CO ₂ -eq | 2,11E+00 | 1,08E-01 | 7,40E-03 | 2,53E-03 | 0 | |
| GWP-biogenic | kg CO ₂ -eq | -6,42E-01 | 4,44E-05 | 7,44E-01 | 5,14E-05 | 0 | |
| GWP-luluc | kg CO ₂ -eq | 5,81E-03 | 3,85E-05 | 2,37E-06 | 1,64E-04 | 0 | |
| ODP | kg CFC11 -eq | 3,57E-06 | 2,43E-08 | 1,52E-09 | 1,24E-09 | 0 | |
| AP | mol H+ -eq | 1,08E-02 | 3,39E-04 | 3,39E-05 | 1,65E-05 | 0 | |
| EP-FreshWater | kg P -eq | 4,38E-04 | 8,55E-07 | 5,88E-08 | 1,71E-07 | 0 | |
| EP-Marine | kg N -eq | 2,85E-03 | 6,88E-05 | 1,15E-05 | 2,81E-06 | 0 | |
| EP-Terrestrial | mol N -eq | 2,73E-02 | 7,69E-04 | 1,22E-04 | 3,70E-05 | 0 | |
| POCP | kg NMVOC -eq | 1,06E-02 | 2,83E-04 | 3,50E-05 | 8,42E-06 | 0 | |
| ADP-minerals&metals ¹ | kg Sb -eq | 1,95E-05 | 2,95E-06 | 1,74E-07 | 1,01E-07 | 0 | |
| ADP-fossil ¹ | MJ | 3,90E+01 | 1,62E+00 | 1,00E-01 | 2,97E-01 | 0 | |
| WDP ¹ | m ³ | 3,81E+02 | 1,56E+00 | 1,30E-01 | 3,01E+01 | 0 | |

| Indicator | Unit | B4 | C1 | C2 | C3 | C4 | D |
|----------------------------------|------------------------|----|----|----------|----------|----------|-----------|
| GWP-total | kg CO ₂ -eq | 0 | 0 | 1,04E-02 | 1,72E+00 | 1,02E-03 | -8,02E-02 |
| GWP-fossil | kg CO ₂ -eq | 0 | 0 | 1,04E-02 | 1,72E+00 | 1,01E-03 | -7,74E-02 |
| GWP-biogenic | kg CO ₂ -eq | 0 | 0 | 4,32E-06 | 1,51E-05 | 5,34E-07 | -1,60E-04 |
| GWP-luluc | kg CO ₂ -eq | 0 | 0 | 3,71E-06 | 2,49E-06 | 1,53E-07 | -2,67E-03 |
| ODP | kg CFC11 -eq | 0 | 0 | 2,36E-09 | 1,82E-09 | 1,05E-10 | -5,64E-03 |
| AP | mol H+ -eq | 0 | 0 | 3,00E-05 | 3,28E-04 | 3,51E-06 | -6,37E-04 |
| EP-FreshWater | kg P -eq | 0 | 0 | 8,33E-08 | 1,73E-07 | 1,38E-08 | -6,88E-06 |
| EP-Marine | kg N -eq | 0 | 0 | 5,93E-06 | 1,72E-04 | 1,09E-06 | -2,08E-04 |
| EP-Terrestrial | mol N -eq | 0 | 0 | 6,63E-05 | 1,73E-03 | 1,24E-05 | -2,25E-03 |
| POCP | kg NMVOC -eq | 0 | 0 | 2,54E-05 | 4,16E-04 | 3,42E-06 | -6,22E-04 |
| ADP-minerals&metals ¹ | kg Sb -eq | 0 | 0 | 2,88E-07 | 7,47E-08 | 5,48E-09 | -7,70E-07 |
| ADP-fossil ¹ | MJ | 0 | 0 | 1,58E-01 | 1,65E-01 | 8,99E-03 | -1,11E+00 |
| WDP ¹ | m ³ | 0 | 0 | 1,53E-01 | 3,13E-01 | 9,65E-02 | -1,38E+01 |







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*10⁻³ = 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 | 1,64E-07 | 6,55E-09 | 5,03E-10 | 1,19E-10 | 0 | |
|  IRP ² | kgBq U235 -eq | 2,81E-01 | 7,10E-03 | 4,30E-04 | 1,02E-02 | 0 | |
|  ETP-fw ¹ | CTUe | 7,96E+01 | 1,20E+00 | 1,33E-01 | 1,57E-01 | 0 | |
|  HTP-c ¹ | CTUh | 1,30E-09 | 0,00E+00 | 4,00E-12 | 5,00E-12 | 0 | |
|  HTP-nc ¹ | CTUh | 2,55E-08 | 1,31E-09 | 1,68E-10 | 1,08E-10 | 0 | |
|  SQP ¹ | dimensionless | 5,57E+01 | 1,13E+00 | 6,88E-02 | 1,31E-01 | 0 | |

| Indicator | Unit | B4 | C1 | C2 | C3 | C4 | D |
|---|-------------------|----|----|----------|----------|----------|-----------|
|  PM | Disease incidence | 0 | 0 | 6,39E-10 | 1,73E-09 | 4,30E-11 | -3,86E-08 |
|  IRP ² | kgBq U235 -eq | 0 | 0 | 6,89E-04 | 2,55E-04 | 4,30E-05 | -7,07E-03 |
|  ETP-fw ¹ | CTUe | 0 | 0 | 1,17E-01 | 3,66E-01 | 1,70E-02 | -6,02E+00 |
|  HTP-c ¹ | CTUh | 0 | 0 | 0,00E+00 | 5,00E-11 | 1,00E-12 | -1,10E-10 |
|  HTP-nc ¹ | CTUh | 0 | 0 | 1,28E-10 | 2,59E-09 | 3,20E-11 | -5,77E-09 |
|  SQP ¹ | dimensionless | 0 | 0 | 1,10E-01 | 1,86E-02 | 2,57E-02 | -7,40E+00 |











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*10⁻³ = 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 | 8,28E+00 | 2,31E-02 | 1,66E-03 | 1,43E-01 | 0 | |
|  | PERM | MJ | 6,59E+00 | 0,00E+00 | -3,67E+00 | 0,00E+00 | 0 | |
|  | PERT | MJ | 1,49E+01 | 2,31E-02 | -3,67E+00 | 1,43E-01 | 0 | |
|  | PENRE | MJ | 2,44E+01 | 1,62E+00 | 1,00E-01 | 2,97E-01 | 0 | |
|  | PENRM | MJ | 1,70E+01 | 0,00E+00 | -1,70E-01 | 0,00E+00 | 0 | |
|  | PENRT | MJ | 4,12E+01 | 1,62E+00 | -6,94E-02 | 2,97E-01 | 0 | |
|  | SM | kg | 3,28E-01 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | |
|  | RSF | MJ | 2,79E-02 | 8,27E-04 | 5,50E-05 | 5,53E-04 | 0 | |
|  | NRSF | MJ | 2,13E-02 | 2,95E-03 | 2,25E-04 | 1,75E-03 | 0 | |
|  | FW | m ³ | 1,15E-02 | 1,73E-04 | 4,75E-05 | 3,24E-04 | 0 | |




| Indicator | | Unit | B4 | C1 | C2 | C3 | C4 | D |
|---|-------|----------------|----|----|----------|-----------|----------|-----------|
|  | PERE | MJ | 0 | 0 | 2,26E-03 | 4,18E-03 | 5,40E-04 | -6,83E+00 |
|  | PERM | MJ | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
|  | PERT | MJ | 0 | 0 | 2,26E-03 | 4,18E-03 | 5,40E-04 | -6,83E+00 |
|  | PENRE | MJ | 0 | 0 | 1,58E-01 | 1,65E-01 | 8,99E-03 | -1,11E+00 |
|  | PENRM | MJ | 0 | 0 | 0,00E+00 | -1,68E+01 | 0,00E+00 | 0,00E+00 |
|  | PENRT | MJ | 0 | 0 | 1,58E-01 | -1,67E+01 | 8,99E-03 | -1,11E+00 |
|  | SM | kg | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
|  | RSF | MJ | 0 | 0 | 8,08E-05 | 1,14E-04 | 1,34E-05 | -1,20E-03 |
|  | NRSF | MJ | 0 | 0 | 2,89E-04 | 0,00E+00 | 2,96E-03 | -4,05E-01 |
|  | FW | m ³ | 0 | 0 | 1,69E-05 | 3,46E-04 | 8,27E-06 | -8,23E-03 |

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*10⁻³ = 0,009"

*INA Indicator Not Assessed






| End of life - Waste | | | | | | | | |
|---|------|------|----------|----------|----------|----------|----|--|
| Indicator | | Unit | A1-A3 | A4 | A5 | B2 | B3 | |
|  | HWD | kg | 1,48E-02 | 8,36E-05 | 0,00E+00 | 1,55E-05 | 0 | |
|  | NHWD | kg | 1,29E-01 | 7,84E-02 | 4,42E-01 | 9,80E-04 | 0 | |
|  | RWD | kg | 8,41E-05 | 1,11E-05 | 0,00E+00 | 4,47E-06 | 0 | |






| Indicator | | Unit | B4 | C1 | C2 | C3 | C4 | D |
|---|------|------|----|----|----------|----------|----------|-----------|
|  | HWD | kg | 0 | 0 | 8,13E-06 | 0,00E+00 | 1,56E-02 | -5,20E-05 |
|  | NHWD | kg | 0 | 0 | 7,67E-03 | 0,00E+00 | 8,47E-03 | -2,61E-02 |
|  | RWD | kg | 0 | 0 | 1,07E-06 | 0,00E+00 | 5,42E-08 | -5,79E-06 |

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

*Reading example: 9,0 E-03 = 9,0*10⁻³ = 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 | 1,66E-02 | 0,00E+00 | 4,09E-01 | 0,00E+00 | 0 | |
|  | MER | kg | 3,09E-07 | 0,00E+00 | 7,96E-07 | 0,00E+00 | 0 | |
|  | EEE | MJ | 3,26E-02 | 0,00E+00 | 2,51E-02 | 0,00E+00 | 0 | |
|  | EET | MJ | 4,94E-01 | 0,00E+00 | 3,79E-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 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
|  | MER | kg | 0 | 0 | 0,00E+00 | 8,35E-01 | 0,00E+00 | 0,00E+00 |
|  | EEE | MJ | 0 | 0 | 0,00E+00 | 8,82E-01 | 0,00E+00 | 0,00E+00 |
|  | EET | MJ | 0 | 0 | 0,00E+00 | 1,33E+01 | 0,00E+00 | 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*10⁻³ = 0,009

*INA Indicator Not Assessed

| Biogenic Carbon Content | | |
|---|------|---------------------|
| Indicator | Unit | At the factory gate |
| Biogenic carbon content in product | kg C | 1,52E-01 |
| Biogenic carbon content in accompanying packaging | kg C | 1,00E-01 |

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

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 | Data source | Amount | Unit |
|---------------------------|---------------|--------|---------------------------|
| Electricity, Sweden (kWh) | ecoinvent 3.6 | 54,94 | g CO ₂ -eq/kWh |

Dangerous substances

No substances given by the REACH Candidate list or the Norwegian priority list are intentionally added to the product.

Indoor environment

A test report for the indoor emissions has been done by RISE and can be seen here: <https://www.dropbox.com/s/6m0j4gkakam7f5f/O100152-17431%20Abstracta%2C%20Indoor%20Emissions%2C%20Airfelt.pdf?dl=0>.

Additional Environmental Information

| Additional environmental impact indicators required in NPCR Part A for construction products | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | B2 | B3 | |
| GWPIOBC | kg CO ₂ -eq | 2,00E+00 | 1,08E-01 | 0,00E+00 | 2,74E-03 | 0 | |
| Indicator | Unit | B4 | C1 | C2 | C3 | C4 | D |
| GWPIOBC | kg CO ₂ -eq | 0 | 0 | 1,04E-02 | 1,72E+00 | 1,08E-03 | -7,90E-02 |

GWPI-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.

Variants and Options

| Key environmental indicators (A1-A3) for variants of this EPD | | | | |
|---|-------------|-----------------------------------|-------------------------------|----------------------------------|
| Variants | Weight (kg) | GWPtotal (kg CO ₂ -eq) | Total energy consumption (MJ) | Amount of recycled materials (%) |
| Airbloom 475x510 10 pcs | 3,33 | 5,32 | 79,02 | 12,38 |

Key Environmental Indicators

| Indicator | Unit | A1-A3 | A4 | A1-C4 | A1-D |
|------------------------------|------------------------|-------|------|-------|-------|
| GWPtotal | kg CO ₂ -eq | 1,47 | 0,11 | 4,07 | 3,99 |
| Total energy consumption | MJ | 32,73 | 1,65 | 35,26 | 26,92 |
| Amount of recycled materials | % | 21,01 | | | |

Bibliography

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

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

EN 15804:2012+A2:2019 Environmental product declaration - Core rules for the product category of construction products.

ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.






ecoinvent v3, Allocation, cut-off by classification, Swiss Centre of Life Cycle Inventories.

Iversen et al., (2021) eEPD v2021.09 Background information for EPD generator tool system verification, LCA.no Report number: 07.21

Ruud et al., (2023) EPD generator for NPCR026 Part B for Furniture - Background information for EPD generator application and LCA data, LCA.no report number 01.23

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

NPCR 026 Part B for Furniture. Ver. 2.0 March 2022, EPD-Norge.

| | | |
|---|--|---|
|  epd-norway <small>Global Program Operator</small> | Program operator and publisher The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo, Norway | Phone: +47 23 08 80 00 e-mail: post@epd-norge.no web: www.epd-norge.no |
|  | Owner of the declaration: Abstracta AB Lammengatan 2, 363 45 Lammhult | Phone: e-mail: tim.wisme@abstracta.se web: www.abstracta.se |
|  | Author of the Life Cycle Assessment LCA.no AS Dokka 6B, 1671 | Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no |
|  | Developer of EPD generator LCA.no AS Dokka 6B,1671 Kråkerøy | Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no |
|  | ECO Platform ECO Portal | web: www.eco-platform.org web: ECO Portal |