

Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

weber ML 5 colored Masonry Mortar Lumi White, weber ML 5 T colored Tight Masonry Mortar Lumi White



The Norwegian EPD Foundation

Owner of the declaration:

Saint-Gobain Finland Oy

Product:

weber ML 5 colored Masonry Mortar Lumi White, weber ML 5 T colored Tight Masonry Mortar Lumi White

Declared unit:

1 kg

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR

NPCR 009:2021 Part B for Technical - Chemical products for building and construction industry

Program operator:

The Norwegian EPD Foundation

Declaration number:

NEPD-4856-4116-EN

Registration number:

NEPD-4856-4116-EN

Issue date: 28.08.2023

Valid to: 28.08.2028

EPD Software:

LCA.no EPD generator ID: 60914

General information

Product

weber ML 5 colored Masonry Mortar Lumi White, weber ML 5 T colored Tight Masonry Mortar Lumi White

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-4856-4116-EN

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR
NPCR 009:2021 Part B for Technical - Chemical products for building and construction industry

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 kg weber ML 5 colored Masonry Mortar Lumi White, weber ML 5 T colored Tight Masonry Mortar Lumi White

Declared unit with option:

A1-A3,A4,A5,C1,C2,C3,C4,D

Functional unit:

not relevant

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 EPD Norway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Anne Rønning, Norsus AS
(no signature required)

Owner of the declaration:

Saint-Gobain Finland Oy
Contact person: Anne Kaiser
Phone: +358400289933
e-mail: anne.kaiser@saint-gobain.com

Manufacturer:

Saint-Gobain Finland Oy
P.O. Box 70
FI-00381 Helsinki, Finland

Place of production:

Saint-Gobain Weber Kiikala
Kiikala premix plant, Oinasjärventie 200
25390 Kiikala, Finland

Management system:

ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007

Organisation no:

FI09515553

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.

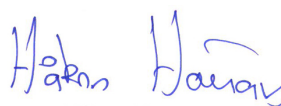
Development and verification of EPD:

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: Päivi Pesu

Reviewer of company-specific input data and EPD: Helene Løvkvist Andersen

Approved:



Håkon Hauan
Managing Director of EPD-Norway

Product

Product description:

This EPD contains 2 products with variation <10% in A1-A3 GWP-total and is based on a representative product. weber ML 5 colored Masonry Mortar Lumi White (weber ML 5 Muurauslaasti Lumi) is white-coloured masonry mortar for masonry of clay and calcium silicate masonry units in facades and partition walls. It is suitable also for masonry in the cold attic space, the masonry of the so-called cold flue section in the upper part of the chimney, and masonry of a separate shell of the fireplace. weber ML 5 T colored Tight Masonry Mortar Lumi White (weber ML 5 T Tiivismuurauslaasti Lumi) is white-colored tight masonry mortar developed for masonry of clay and calcium silicate masonry units in facades exposed to strong slanting rain, e.g. sites located on banks and shore lines, in open places or where higher than usual protection against weather stress is desired for the structure. The products can also be used for pointing brick structures when the depth of the mortar joint is at least 30 mm and the water absorption of the masonry unit is sufficient. In this case, the work instructions for the pointing mortar product data sheet apply. Compressive strength class M5. Delivered in 1000 kg big bags. GTIN 6415910021764, 6415910021771.

Product specification

The composition of the product is described in the following table:

| Materials | Value | Unit |
|---------------|--------|------|
| Binder | 5-15 | % |
| Filler | 70-95 | % |
| Additives | 0-5 | % |
| Packaging, PP | 0,0014 | kg |

Technical data:

weber ML 5 Coloured masonry mortar and weber ML 5 Coloured tight mortar meet the requirements of SFS-EN 998-2:2016 (Designed, general purpose masonry mortar for internal and external applications in structural masonry).

Water requirement: 3,0-3,5L / 25kg

More information in: www.fi.weber/muoraus-ja-rakennelaastit/varilliset-ja-erikoismuurauslaastit/weber-ml-5-varillinen-muurauslaasti
And www.fi.weber/muoraus-ja-rakennelaastit/varilliset-ja-erikoismuurauslaastit/weber-ml-5-t-tiivismuurauslaasti

Market:

Nordic and Baltic countries

Reference service life, product

The reference service life of the product is similar to the service life of the building.

Reference service life, building

60 years

LCA: Calculation rules

Declared unit:

1 kg weber ML 5 colored Masonry Mortar Lumi White, weber ML 5 T colored Tight Masonry Mortar Lumi White

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. The data represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on EPDs according to EN 15804 and different LCA databases. The data quality of the raw materials in A1 is presented in the table below.

| Materials | Source | Data quality | Year |
|-----------|---------------|--------------|------|
| Additives | ecoinvent 3.6 | Database | 2019 |
| Filler | ecoinvent 3.6 | Database | 2019 |
| Packaging | ecoinvent 3.6 | Database | 2019 |
| Cement | Supplier | EPD | 2021 |

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

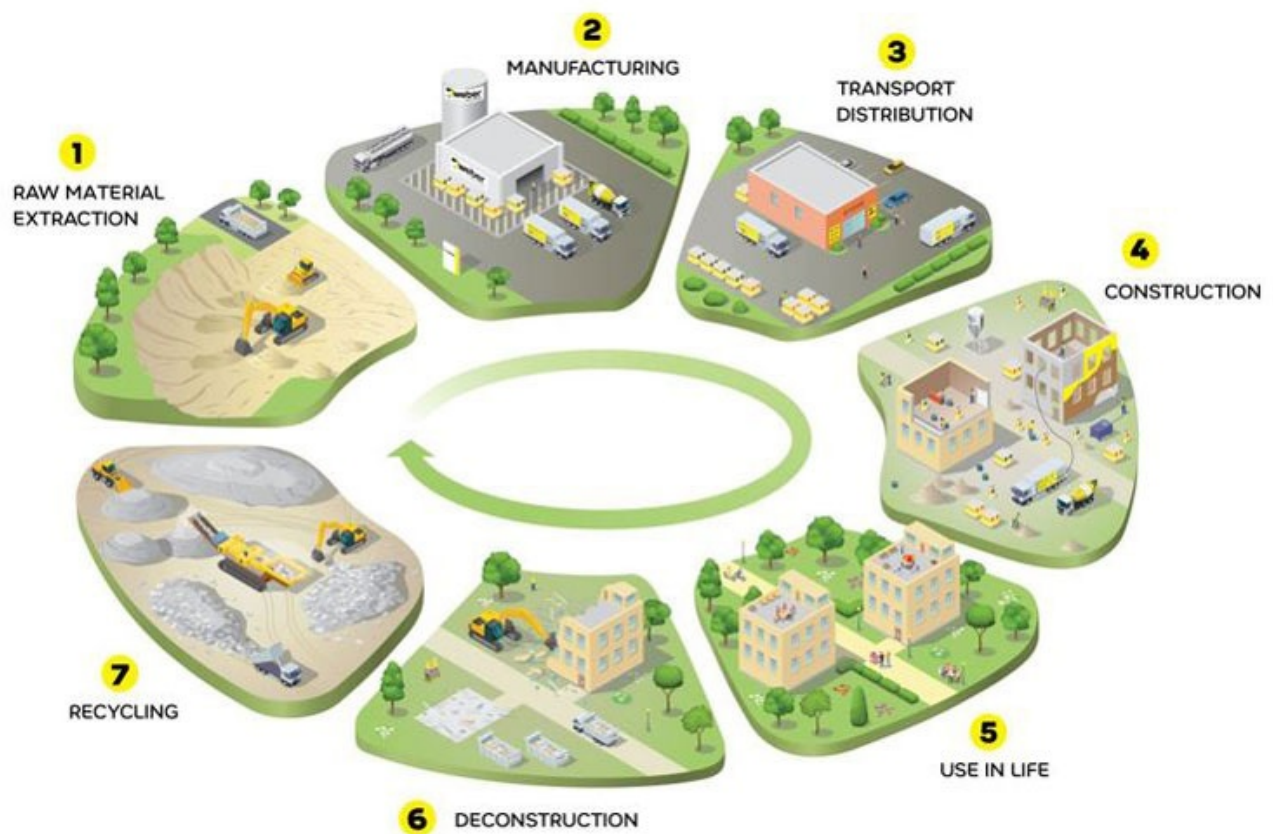
System boundary:

All processes from raw materials extraction to product transportation to the building site, assembly as well as end of life stage and phases beyond the system boundary (A1-A5, C1-C4, D) are included in the analysis.

The basic production process comprises of mixing raw materials together. Ready mixed product is then packed into bags for delivery. At assembly phase, water is added according to the instructions and it is mixed. Stage B is not considered. When building is de-constructed at the end-of-life, the structure with mortar integrated into it are crushed. 90% of crushed material is recycled and used to replace natural gravel in soil construction, remaining 10% being disposed to landfill.

System boundaries (cradle-to-gate with options) are illustrated in the picture below.

Higher than 10% variation of core environmental indicators of specific product compared to the representative results reported in this EPD in A1-A3: GWPbiogenic -23%, GWPluluc 1834%.



Additional technical information:

The LCA calculation has been made taking into account the fact that during the manufacturing process 100% renewable electricity is used. This 100% renewable electricity bought is evidenced by Guarantee of Origin certificates (GOs) from LOS, valid for the study year (2022) and after.

LCA: Scenarios and additional technical information

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

The results of stage A4 (transportation of product) in the table of this EPD refer to transportation in Finland (average distance 2022). This product may also be delivered to the countries in the table "Additional A4 information". In order to adapt the impact of transportation to these countries, A4 figures from this EPD shall be multiplied by the multiplication factors below.














At installation stage, it is assumed that mixing is done by electric mixer. Electricity mix used is that of Finland. Material loss is considered to be 5%.

At end of life stage, it is assumed that all demolition waste is collected and 90% of crushed building material is recycled and 10% is disposed into landfill. Transportation distance to processing is estimated to be 30 km.

| Transport from production place to user (A4) | Capacity utilisation (incl. return) % | Distance (km) | Fuel/Energy Consumption | Unit | Value (Liter/tonne) |
|--|---------------------------------------|---------------|-------------------------|-------|---------------------|
| Truck, over 32 tonnes, EURO 5 (km) | 53,3 % | 177 | 0,023 | l/tkm | 4,07 |
| Transport from production place to user (A4) | Unit | Value | | | |
| Tullinge, Sweden (truck / ferry 560 km) | Multiplication factor GWP/A4 | 3,68 | | | |
| Lillestrøm, Norway (truck / ferry 1050 km) | Multiplication factor GWP/A4 | 6,46 | | | |
| Karlsunde, Denmark (truck / ferry 1215 km) | Multiplication factor GWP/A4 | 7,39 | | | |
| Tallinn, Estonia (truck / ferry 193 km) | Multiplication factor GWP/A4 | 1,19 | | | |
| Riga, Latvia (truck / ferry 494 km) | Multiplication factor GWP/A4 | 2,89 | | | |
| Kaunas, Lithuania (truck / ferry 760 km) | Multiplication factor GWP/A4 | 4,40 | | | |
| Assembly (A5) | Unit | Value | | | |
| | kg | 0,00 | | | |
| Electricity, Finland (kWh) | kWh/DU | 0,00 | | | |
| Product loss during installation (percentage) | Units/DU | 0,05 | | | |
| Water, tap water (L) | kg/DU | 0,14 | | | |
| De-construction demolition (C1) | Unit | Value | | | |
| Demolition of building per kg product (kg) | kg/DU | 1,00 | | | |
| Transport to waste processing (C2) | Capacity utilisation (incl. return) % | Distance (km) | Fuel/Energy Consumption | Unit | Value (Liter/tonne) |
| Truck, over 32 tonnes, EURO 5 (km) | 53,3 % | 30 | 0,023 | l/tkm | 0,69 |
| Waste processing (C3) | Unit | Value | | | |
| Waste treatment of product after demolition (kg) | kg | 0,90 | | | |
| Disposal (C4) | Unit | Value | | | |
| Disposal of product in landfill (kg) | kg | 0,10 | | | |
| Benefits and loads beyond the system boundaries (D) | Unit | Value | | | |
| Substitution of primary aggregates with crushed recycled inert products (kg) | kg | 0,90 | | | |

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 | C1 | C2 | C3 | C4 | D | |
|  GWP-total | kg CO ₂ -eq | 2,11E-01 | 1,61E-02 | 1,24E-02 | 4,00E-03 | 2,73E-03 | 6,48E-04 | 8,22E-04 | -2,10E-03 | |
|  GWP-fossil | kg CO ₂ -eq | 2,03E-01 | 1,61E-02 | 1,20E-02 | 4,00E-03 | 2,73E-03 | 6,39E-04 | 8,20E-04 | -2,06E-03 | |
|  GWP-biogenic | kg CO ₂ -eq | 7,55E-03 | 6,60E-06 | 3,82E-04 | 7,50E-07 | 1,12E-06 | 5,52E-06 | 9,58E-07 | -4,11E-05 | |
|  GWP-luluc | kg CO ₂ -eq | 5,87E-05 | 4,70E-06 | 9,16E-06 | 3,15E-07 | 7,96E-07 | 8,84E-07 | 2,02E-07 | -1,39E-06 | |
|  ODP | kg CFC11 -eq | 1,40E-08 | 3,72E-09 | 1,07E-09 | 8,64E-10 | 6,30E-10 | 1,25E-10 | 3,11E-10 | -3,75E-10 | |
|  AP | mol H+ -eq | 1,87E-03 | 6,76E-05 | 1,03E-04 | 4,19E-05 | 1,15E-05 | 5,17E-06 | 7,30E-06 | -1,85E-05 | |
|  EP-FreshWater | kg P -eq | 2,70E-05 | 1,23E-07 | 1,39E-06 | 1,46E-08 | 2,08E-08 | 4,04E-08 | 9,30E-09 | -5,48E-08 | |
|  EP-Marine | kg N -eq | 2,06E-04 | 2,03E-05 | 1,32E-05 | 1,85E-05 | 3,45E-06 | 1,52E-06 | 2,71E-06 | -6,43E-06 | |
|  EP-Terrestrial | mol N -eq | 2,06E-03 | 2,25E-04 | 1,34E-04 | 2,00E-04 | 3,81E-05 | 1,75E-05 | 2,99E-05 | -7,56E-05 | |
|  POCP | kg NMVOC -eq | 7,97E-04 | 7,23E-05 | 4,90E-05 | 5,57E-05 | 1,23E-05 | 4,68E-06 | 8,56E-06 | -2,00E-05 | |
|  ADP-minerals&metals ¹ | kg Sb -eq | 1,39E-06 | 2,75E-07 | 9,28E-08 | 6,14E-09 | 4,66E-08 | 8,11E-09 | 7,39E-09 | -1,83E-07 | |
|  ADP-fossil ¹ | MJ | 2,01E+00 | 2,50E-01 | 1,37E-01 | 5,51E-02 | 4,24E-02 | 1,98E-02 | 2,26E-02 | -3,49E-02 | |
|  WDP ¹ | m ³ | 3,60E+00 | 1,92E-01 | 1,21E+00 | 1,17E-02 | 3,25E-02 | 2,19E+00 | 1,39E-01 | -1,63E+00 | |

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

Product hardens after 5 to 6 hours from adding water and can then be disposed of as construction waste.


| Additional environmental impact indicators | | | | | | | | | | |
|---|-------------------|----------|----------|----------|----------|----------|----------|----------|-----------|--|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D | |
|  PM | Disease incidence | 8,01E-09 | 1,42E-09 | 7,64E-10 | 5,07E-09 | 2,40E-10 | 8,30E-11 | 1,56E-10 | -3,95E-10 | |
|  IRP ² | kgBq U235 -eq | 4,92E-03 | 1,09E-03 | 7,46E-04 | 2,40E-04 | 1,85E-04 | 3,33E-04 | 1,03E-04 | -3,20E-04 | |
|  ETP-fw ¹ | CTUe | 3,62E+00 | 1,83E-01 | 2,07E-01 | 3,01E-02 | 3,10E-02 | 1,41E-02 | 1,23E-02 | -3,59E-02 | |
|  HTP-c ¹ | CTUh | 2,97E-10 | 0,00E+00 | 1,50E-11 | 1,00E-12 | 0,00E+00 | 1,00E-12 | 0,00E+00 | -2,00E-12 | |
|  HTP-nc ¹ | CTUh | 2,07E-09 | 1,77E-10 | 1,26E-10 | 2,80E-11 | 3,00E-11 | 1,20E-11 | 9,00E-12 | -4,30E-11 | |
|  SQP ¹ | dimensionless | 6,86E-01 | 2,87E-01 | 6,71E-02 | 6,69E-03 | 4,86E-02 | 1,12E-02 | 8,69E-02 | 7,91E-02 | |

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 = Potential Soil Quality Index (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 | C1 | C2 | C3 | C4 | D | |
|  PERE | MJ | 2,34E-01 | 3,15E-03 | 1,75E-02 | 3,00E-04 | 5,34E-04 | 1,02E-02 | 8,08E-04 | -8,16E-03 | |
|  PERM | MJ | 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 | 2,34E-01 | 3,15E-03 | 1,75E-02 | 3,00E-04 | 5,34E-04 | 1,02E-02 | 8,08E-04 | -8,16E-03 | |
|  PENRE | MJ | 1,51E+00 | 2,50E-01 | 1,13E-01 | 5,51E-02 | 4,24E-02 | 1,99E-02 | 2,26E-02 | -3,68E-02 | |
|  PENRM | MJ | 5,16E-02 | 0,00E+00 | 2,58E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | |
|  PENRT | MJ | 1,56E+00 | 2,50E-01 | 1,16E-01 | 5,51E-02 | 4,24E-02 | 1,99E-02 | 2,26E-02 | -3,68E-02 | |
|  SM | kg | 1,51E-03 | 0,00E+00 | 7,56E-05 | 0,00E+00 | 0,00E+00 | 4,44E-09 | 0,00E+00 | -1,83E-08 | |
|  RSF | MJ | 3,01E-03 | 1,10E-04 | 2,25E-04 | 0,00E+00 | 1,87E-05 | 5,38E-08 | 1,68E-05 | -1,67E-04 | |
|  NRSF | MJ | 1,84E-03 | 3,69E-04 | 3,11E-04 | 0,00E+00 | 6,26E-05 | -3,33E-09 | 3,62E-05 | -1,71E-04 | |
|  FW | m ³ | 1,91E-03 | 2,85E-05 | 2,57E-04 | 2,83E-06 | 4,83E-06 | 3,40E-05 | 2,78E-05 | -1,28E-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 | C1 | C2 | C3 | C4 | D | |
|  HWD | kg | 2,35E-03 | 1,37E-05 | 1,20E-04 | 1,62E-06 | 2,32E-06 | 1,98E-06 | 0,00E+00 | -8,40E-06 | |
|  NHWD | kg | 9,89E-02 | 2,18E-02 | 1,20E-02 | 6,52E-05 | 3,69E-03 | 6,26E-05 | 1,00E-01 | -2,55E-04 | |
|  RWD | kg | 5,51E-06 | 1,71E-06 | 5,93E-07 | 3,82E-07 | 2,90E-07 | 2,10E-07 | 0,00E+00 | -2,76E-07 | |

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 | C1 | C2 | C3 | C4 | D | |
|  CRU | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | |
|  MFR | kg | 7,40E-05 | 0,00E+00 | 4,57E-02 | 0,00E+00 | 0,00E+00 | 9,00E-01 | 0,00E+00 | -1,65E-06 | |
|  MER | kg | 1,21E-03 | 0,00E+00 | 6,06E-05 | 0,00E+00 | 0,00E+00 | 5,39E-10 | 0,00E+00 | -6,17E-05 | |
|  EEE | MJ | 1,16E-03 | 0,00E+00 | 6,71E-05 | 0,00E+00 | 0,00E+00 | 9,24E-10 | 0,00E+00 | -1,49E-05 | |
|  EET | MJ | 1,76E-02 | 0,00E+00 | 1,01E-03 | 0,00E+00 | 0,00E+00 | 1,40E-08 | 0,00E+00 | -2,25E-04 | |

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 | 0,00E+00 |
| Biogenic carbon content in accompanying packaging | kg C | 0,00E+00 |

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 |
|---|---------------|--------|---------------------------|
| Renewable electricity Saint-Gobain, based on 100% hydro power, with Guarantee of Origin from LOS 2021 (kWh) | ecoinvent 3.6 | 4,26 | g CO ₂ -eq/kWh |

Dangerous substances

The product contains no substances given by the REACH Candidate list or the Norwegian priority list. The product is classified as hazardous waste (Avfallsforskriften, Annex III), see table.

| Name | CASNo | Amount |
|-----------------|------------|--------|
| Portland cement | 65997-15-1 | 5-15% |

Indoor environment

See product specific information in www.fi.weber/






Additional Environmental Information

| Additional environmental impact indicators required in NPCR Part A for construction products | | | | | | | | | |
|--|------------------------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| GWPIOBC | kg CO ₂ -eq | 1,99E-01 | 1,61E-02 | 1,19E-02 | 4,00E-03 | 2,73E-03 | 1,19E-03 | 0,00E+00 | -2,20E-03 |

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.

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
 Iversen et al., (2019) EPD generator for Saint-Gobain Weber and Scanspac - Background information and LCA data, LCA.no report number 05.18
 Iversen et al., (2020) EPD generator for Saint-Gobain Weber Nordics and Scanspac Background information for customer application, and LCA data – Supplementary report for modules A5, C and D, LCA.no report number 04.20
 NPCR Part A: Construction products and services. Ver. 2.0, 24.03.2021 EPD Norway.
 NPCR 009 Part B for technical-chemical products. Ver. 2.0 October 2021, 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: Saint-Gobain Finland Oy P.O. Box 70, Fi-00381 Helsinki | Phone: +358400289933 e-mail: anne.kaiser@saint-gobain.com web: www.saint-gobain.fi |
|  | 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 |