

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

5095 Bardal



**GUDBRANDSDALENS  
ULDVAREFABRIK**

**Owner of the declaration:**

Gudbrandsdalens Uldvarefabrik

**Product:**

5095 Bardal

**Declared unit:**

1 m<sup>2</sup>

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

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

EPD International 2022:04 for Fabrics

**Program operator:**

EPD-Global

**Declaration number:**

NEPD-15448-19112

**Issue date:**

16.04.2026

**Valid to:**

16.04.2031

**EPD software:**

LCAno EPD generator ID: 1255835

EPD-Global

## General information

### Product

5095 Bardal

### Program operator:

EPD-Global  
Post Box 5250 Majorstuen, 0303 Oslo, Norway  
Phone: +47 977 22 020  
web: [www.epd-global.com](http://www.epd-global.com)

### Declaration number:

NEPD-15448-19112

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

CEN Standard EN 15804:2012+A2:2019 serves as core PCR  
EPD International 2022:04 for Fabrics

### 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 m<sup>2</sup> 5095 Bardal

### Declared unit with option:

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

### Functional unit:

Not applicable.

### 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-Global'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-Global, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Global'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-Global's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Silje Wærp - Asplan Viak, Asplan Viak

(no signature required)

### Owner of the declaration:

Gudbrandsdalens Uldvarefabrik  
Contact person: Bjørn Krekke  
Phone: 61 22 15 00  
e-mail: [gu@gu.no](mailto:gu@gu.no)

### Manufacturer:

Gudbrandsdalens Uldvarefabrik

### Place of production:

Gudbrandsdalens Uldvarefabrik  
Mortrudveien 3/5  
Lillehammer, Norway

### Management system:

ISO 9001:2015; ISO 14001:2015

### Organisation no:

996 131 491

### Issue date:

16.04.2026

### Valid to:

16.04.2031

### Year of study:

2024

### Comparability:

EPDs of Fabrics, may not be comparable if they do not comply with EN 15804+A2:2019.

### 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-Global.

Developer of EPD: Vidar Lilleespe

Reviewer of company-specific input data and EPD: Iryna Chechyna

### Approved:



Håkon Hauan, CEO EPD-Global

## Product

### Product description:

Bardal is a timeless, mélange fabric in a modern and subdued palette. The smooth and soft surface is underlined by restrained colours with some burst of sun and summer sky. Bardal is a fabric with a warm and welcoming character, perfect for attractive interiors that evoke a homely and safe feeling. A perfect match for other natural materials such as leather, metal and stone. Bardal is used as an upholstery fabric for furniture.

### Product specification

70% New Zealand wool and 30% Viscose FSC Certified (Forest Stewardship Council)

| Materials       | kg      | %      |
|-----------------|---------|--------|
| Dyestuff        | 0.00217 | 0.559  |
| Fibre - Viscose | 0.1158  | 29.83  |
| Fibre - Wool    | 0.2702  | 69.61  |
| Total           | 0.3882  | 100.00 |

| Packaging             | kg     | %      |
|-----------------------|--------|--------|
| Packaging - Cardboard | 0.02   | 42.55  |
| Packaging - Paper     | 0.027  | 57.45  |
| Total incl. packaging | 0.4352 | 100.00 |

### Technical data:

For the complete technical data overview see our website under Technical specifications and certifications:  
<https://www.gu.no/en/collection/upholstery/standard-collection/bardal/#810>

### Market:

Norway

### Reference service life, product

The durability of the product is influenced by how it is used and maintained.

Not applicable.

## LCA: Calculation rules

### Declared unit:

1 m<sup>2</sup> 5095 Bardal

### 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.

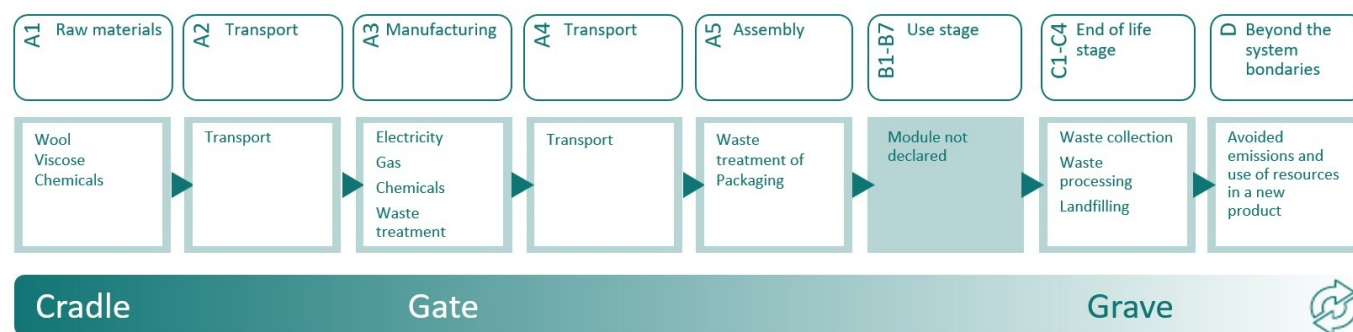
| Materials             | Source           | Data quality | Year |
|-----------------------|------------------|--------------|------|
| Dyestuff              | ecoinvent 3.10.1 | Database     | 2023 |
| Fibre - Viscose       | ecoinvent 3.10.1 | Database     | 2023 |
| Fibre - Wool          | ecoinvent 3.10.1 | Database     | 2023 |
| Packaging - Cardboard | ecoinvent 3.10.1 | Database     | 2023 |
| Packaging - Paper     | ecoinvent 3.10.1 | Database     | 2023 |

## 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 |  | Disassembly       | 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:

The life cycle stages described in the PCR were divided as follows: upstream processes (module A1), core processes (modules A2 and A3), and downstream processes (modules A4, A5, C1–C4, and D). Fibre is used as a raw material in the production of fabric. The fibers are spun into yarn through spinning, and then woven into fabric.



### Additional technical information:

Nothing declared.

## LCA: Scenarios and additional technical information

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

Module A4 covers the distribution of the fabric to the Norwegian market.

- Module A5 covers the waste treatment of the packaging materials.

- Modules C1-C4 represent the end-of-life stage, based on one use of the reference product. Disassembly (module C1) is assumed to be done manually and, therefore, free of burdens. The scenario is modelled according to the Product Environmental Footprint Category Rules (PEFCR) for Apparel and Footwear.

| Transport from production place to user (A4)                                                         | Capacity utilisation<br>(incl. return) % | Distance (km) | Fuel/Energy<br>Consumption | Unit  | Value<br>(Liter/tonne) |
|------------------------------------------------------------------------------------------------------|------------------------------------------|---------------|----------------------------|-------|------------------------|
| Truck, 16-32 tonnes, EURO 6 (km) - Europe                                                            | 38.8 %                                   | 300.00        | 0.044                      | l/tkm | 13.20                  |
| Assembly (A5)                                                                                        | Unit                                     | Value         |                            |       |                        |
| Waste, cardboard and paper, to average treatment (kg)                                                | kg                                       | 0.047         |                            |       |                        |
| Transport to waste processing (C2)                                                                   | Capacity utilisation<br>(incl. return) % | Distance (km) | Fuel/Energy<br>Consumption | Unit  | Value<br>(Liter/tonne) |
| Truck, 16-32 tonnes, EURO 6 (km) - Europe                                                            | 38.8 %                                   | 85.00         | 0.044                      | l/tkm | 3.74                   |
| Waste processing (C3)                                                                                | Unit                                     | Value         |                            |       |                        |
| Waste, textile to recycling (kg)                                                                     | kg                                       | 0.05823       |                            |       |                        |
| Treatment of waste textile, incineration with fly ash extraction (kg)                                | kg                                       | 0.1553        |                            |       |                        |
| Disposal (C4)                                                                                        | Unit                                     | Value         |                            |       |                        |
| Landfilling of ashes from incineration of Textile, soiled, process per kg<br>ashes and residues (kg) | kg                                       | 0.0078        |                            |       |                        |
| Treatment of waste yarn and waste textile, landfill (kg)                                             | kg                                       | 0.1747        |                            |       |                        |
| Benefits and loads beyond the system boundaries (D)                                                  | Unit                                     | Value         |                            |       |                        |
| Substitution of electricity (MJ)                                                                     | MJ                                       | 0.1407        |                            |       |                        |
| Substitution of thermal energy, district heating (MJ)                                                | MJ                                       | 2.13          |                            |       |                        |

## 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 <sub>2</sub> -eq | 4.44E+00 | 2.48E-02 | 7.04E-02 | 0  | 7.03E-03 | 9.54E-01 | 4.67E-01 | -1.28E-02 |
|  | GWP-fossil                       | kg CO <sub>2</sub> -eq | 3.31E+00 | 2.48E-02 | 8.66E-04 | 0  | 7.02E-03 | 1.13E-01 | 1.25E-03 | -1.24E-02 |
|  | GWP-biogenic                     | kg CO <sub>2</sub> -eq | 6.96E-01 | 1.91E-05 | 6.95E-02 | 0  | 5.42E-06 | 8.41E-01 | 4.65E-01 | -2.13E-05 |
|  | GWP-luluc                        | kg CO <sub>2</sub> -eq | 4.37E-01 | 8.90E-06 | 2.91E-07 | 0  | 2.52E-06 | 3.07E-06 | 1.40E-07 | -4.26E-04 |
|  | ODP                              | kg CFC11 -eq           | 8.04E-08 | 5.22E-10 | 1.70E-11 | 0  | 1.48E-10 | 4.13E-10 | 1.70E-11 | -8.99E-04 |
|  | AP                               | mol H+ -eq             | 8.33E-02 | 5.16E-05 | 3.25E-06 | 0  | 1.46E-05 | 4.12E-04 | 8.48E-06 | -1.07E-04 |
|  | EP-FreshWater                    | kg P -eq               | 1.07E-03 | 1.67E-06 | 6.18E-08 | 0  | 4.73E-07 | 1.56E-06 | 3.98E-07 | -2.02E-06 |
|  | EP-Marine                        | kg N -eq               | 1.66E-02 | 1.24E-05 | 1.27E-06 | 0  | 3.51E-06 | 3.11E-04 | 1.14E-04 | -3.36E-05 |
|  | EP-Terrestrial                   | mol N -eq              | 3.45E-01 | 1.34E-04 | 1.28E-05 | 0  | 3.79E-05 | 2.09E-03 | 4.19E-05 | -3.63E-04 |
|  | POCP                             | kg NMVOC -eq           | 1.46E-02 | 8.58E-05 | 4.78E-06 | 0  | 2.43E-05 | 5.06E-04 | 7.67E-05 | -1.01E-04 |
|  | ADP-minerals&metals <sup>1</sup> | kg Sb-eq               | 1.93E-05 | 8.25E-08 | 2.79E-09 | 0  | 2.34E-08 | 4.94E-08 | 1.70E-09 | -2.03E-07 |
|  | ADP-fossil <sup>1</sup>          | MJ                     | 3.83E+01 | 3.49E-01 | 1.15E-02 | 0  | 9.88E-02 | 1.84E-01 | 1.37E-02 | -1.75E-01 |
|  | WDP <sup>1</sup>                 | m <sup>3</sup>         | 1.29E+03 | 1.73E-03 | 2.94E-04 | 0  | 4.91E-04 | 1.32E-02 | 7.41E-05 | -5.35E-02 |

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"

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

The LCA results in the EPD are calculated using a specific methodological approach for accounting energy resources, see the additional requirements section for more information. In this EPD the following approach was used: Market-based approach.

GWP\* is an alternative metric to GWP100 that better represents the warming impact of short-lived climate pollutants such as methane. Unlike GWP100, which aggregates impacts over a 100-year time horizon, GWP\* accounts for the fact that stable methane emissions do not lead to additional temperature increase. Applying GWP\* to stable emissions therefore reduces the climate contribution from wool by approximately 30%, in line with Allen et al. (2018).

The textile has a total mass of 435 g per m<sup>2</sup>, including production waste. Of this mass, 70% is wool and 30% is viscose. Only the wool fraction is affected by the application of GWP\*. This corresponds to 0.305 kg of wool per m<sup>2</sup>.

Based on an emission factor of 7.69 kg CO<sub>2</sub>-eq per kg wool, calculated according to Allen et al. (2018), the wool component contributes:

A1-A3 (GWP100): 2.35 kg CO<sub>2</sub>-eq/m<sup>2</sup>

A1-A3 (GWP\*): 1.65 kg CO<sub>2</sub>-eq/m<sup>2</sup>

Only the wool component is adjusted; emissions related to viscose, waste treatment, and all other life-cycle stages of the textile remain unchanged.

Source:

Allen, M. R., Shine, K. P., Fuglestvedt, J. S., Millar, R. J., Cain, M., Frame, D. J., & Macey, A. H. (2018). A solution to the misrepresentations of CO<sub>2</sub>-equivalent emissions of short-lived climate pollutants under ambitious mitigation. *Nature Climate Change*, 8, 677–683.

<https://doi.org/10.1038/s41558-018-0211-x>

### Additional environmental impact indicators

| Indicator                                                                                             | Unit              | A1-A3    | A4       | A5       | C1 | C2       | C3       | C4       | D         |
|-------------------------------------------------------------------------------------------------------|-------------------|----------|----------|----------|----|----------|----------|----------|-----------|
|  PM                  | Disease incidence | 6.39E-07 | 1.83E-09 | 6.60E-11 | 0  | 5.18E-10 | 1.32E-09 | 2.24E-10 | -6.18E-09 |
|  IRP <sup>2</sup>    | kgBq U235 -eq     | 1.46E-01 | 4.50E-04 | 1.61E-05 | 0  | 1.27E-04 | 3.68E-04 | 1.64E-05 | -1.26E-03 |
|  ETP-fw <sup>1</sup> | CTUe              | 7.92E+01 | 4.64E-02 | 7.62E-03 | 0  | 1.31E-02 | 1.26E-01 | 8.64E-03 | -9.22E-01 |
|  HTP-c <sup>1</sup>  | CTUh              | 1.58E-09 | 0.00E+00 | 0.00E+00 | 0  | 0.00E+00 | 9.00E-12 | 0.00E+00 | -1.70E-11 |
|  HTP-nc <sup>1</sup> | CTUh              | 2.30E-08 | 2.61E-10 | 1.60E-11 | 0  | 7.40E-11 | 7.70E-11 | 3.09E-10 | -9.71E-10 |
|  SQP <sup>1</sup>    | dimensionless     | 4.28E+02 | 2.11E-01 | 6.62E-03 | 0  | 5.97E-02 | 1.91E-02 | 9.05E-02 | -1.18E+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 = Potential Soil Quality Index (dimensionless)

"Reading example: 9.0 E-03 = 9.0\*10<sup>-3</sup> = 0.009"

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             | 3.92E+01  | 6.10E-03 | 2.25E-04  | 0  | 1.73E-03 | 4.86E-03  | 2.80E-04 | -1.09E+00 |
|  | PERM  | MJ             | 7.42E+00  | 0.00E+00 | -6.35E-01 | 0  | 0.00E+00 | -6.79E+00 | 0.00E+00 | 0.00E+00  |
|  | PERT  | MJ             | 4.66E+01  | 6.10E-03 | -6.35E-01 | 0  | 1.73E-03 | -6.78E+00 | 2.80E-04 | -1.09E+00 |
|  | PENRE | MJ             | 3.97E+01  | 3.49E-01 | 1.15E-02  | 0  | 9.88E-02 | 1.84E-01  | 1.37E-02 | -1.75E-01 |
|  | PENRM | MJ             | -2.19E-01 | 0.00E+00 | -2.68E-03 | 0  | 0.00E+00 | -3.72E-02 | 0.00E+00 | 0.00E+00  |
|  | PENRT | MJ             | 3.94E+01  | 3.49E-01 | 8.78E-03  | 0  | 9.88E-02 | 1.47E-01  | 1.37E-02 | -1.75E-01 |
|  | SM    | kg             | 1.97E-02  | 0.00E+00 | 0.00E+00  | 0  | 0.00E+00 | 0.00E+00  | 0.00E+00 | 0.00E+00  |
|  | RSF   | MJ             | 2.13E+00  | 2.05E-06 | 8.10E-08  | 0  | 5.80E-07 | 5.33E-07  | 8.72E-08 | -6.30E-05 |
|  | NRSF  | MJ             | 1.09E-02  | 0.00E+00 | 0.00E+00  | 0  | 0.00E+00 | 0.00E+00  | 0.00E+00 | -6.43E-02 |
|  | FW    | m <sup>3</sup> | 7.28E-02  | 4.75E-05 | 5.29E-06  | 0  | 1.35E-05 | 2.20E-04  | 3.76E-06 | -1.24E-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<sup>-3</sup> = 0.009"

| End of life - Waste                                                                    |      |          |          |          |    |          |          |          |           |  |
|----------------------------------------------------------------------------------------|------|----------|----------|----------|----|----------|----------|----------|-----------|--|
| Indicator                                                                              | Unit | A1-A3    | A4       | A5       | C1 | C2       | C3       | C4       | D         |  |
|  HWD  | kg   | 1.75E-01 | 5.07E-04 | 1.56E-05 | 0  | 1.44E-04 | 0.00E+00 | 3.98E-03 | -1.18E-04 |  |
|  NHWD | kg   | 2.73E+00 | 1.07E-02 | 3.61E-03 | 0  | 3.03E-03 | 1.55E-01 | 1.88E-01 | -8.21E-03 |  |
|  RWD  | kg   | 7.61E-03 | 1.12E-04 | 3.44E-09 | 0  | 3.17E-05 | 0.00E+00 | 0.00E+00 | -8.89E-07 |  |

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

"Reading example: 9.0 E-03 =  $9.0 \times 10^{-3}$  = 0.009"

| 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  | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |  |
|  MFR | kg   | 4.05E-02 | 0.00E+00 | 4.37E-02 | 0  | 0.00E+00 | 5.82E-02 | 3.06E-08 | 0.00E+00 |  |
|  MER | kg   | 1.14E-09 | 0.00E+00 | 0.00E+00 | 0  | 0.00E+00 | 0.00E+00 | 1.04E-10 | 0.00E+00 |  |
|  EEE | MJ   | 2.06E-05 | 0.00E+00 | 5.81E-07 | 0  | 0.00E+00 | 9.89E-05 | 2.15E-06 | 0.00E+00 |  |
|  EET | MJ   | 1.89E-05 | 0.00E+00 | 5.66E-07 | 0  | 0.00E+00 | 2.12E-04 | 3.16E-06 | 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 =  $9.0 \times 10^{-3}$  = 0.009"

| 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 | 1.90E-02            |

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

## Additional requirements

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

The table below presents GWPTotal values for energy resources used in the manufacturing phase (A3), calculated with both the location-based and market-based approach. This information is provided for transparency, allowing EPD users to understand the impact of these methodological choices. In this EPD, the following methodology was used in the main results: Market-based approach.

| Electricity mix                                                                     | Source           | Amount   | Unit | GWPTotal [kg CO2/Unit] | SUM [kg CO2] |
|-------------------------------------------------------------------------------------|------------------|----------|------|------------------------|--------------|
| <b>Location-based approach.</b>                                                     |                  |          |      |                        |              |
| Electricity, Norway, low voltage                                                    | ecoinvent 3.10.1 | 3.37E+00 | kWh  | 2.46E-02               | 8.29E-02     |
| <b>Market-based approach.</b>                                                       |                  |          |      |                        |              |
| Electricity, low voltage, guarantee of origin (GoO), Norway (kWh) 2024 - ENEAS - NO | ecoinvent 3.11   | 3.37E+00 | kWh  | 7.46E-02               | 2.51E-01     |
| Electricity, Norway, low voltage, residual mix                                      | ecoinvent 3.10.1 | 0.00E+00 | kWh  | 6.23E-01               | 0.00E+00     |

### Dangerous substances

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

### Indoor environment

Not applicable

## 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 <sub>2</sub> -eq | 5.06E+00 | 2.48E-02 | 8.66E-04 | 0  | 7.03E-03 | 3.95E-01 | 4.67E-01 | -1.26E-02 |

GWPIOBC: 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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