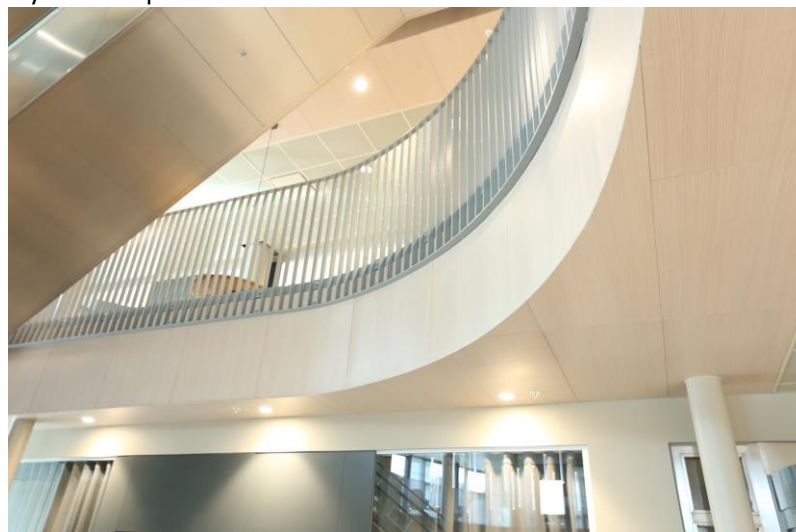


ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Puucomp Premium Panel.
Oy Puucomp Ab



EPD HUB, HUB-0950

Publishing date 22 March 2024, last updated on 22 March 2024, valid until 22 March 2029.

GENERAL INFORMATION

MANUFACTURER

| | |
|-----------------|---|
| Manufacturer | Oy Puucomp Ab |
| Address | Asemakatu 12, FI-64100 KRISTIINANKAUPUNKI |
| Contact details | Info@puucomp.fi |
| Website | www.puucomp.fi |

EPD STANDARDS, SCOPE AND VERIFICATION

| | |
|--------------------|---|
| Program operator | EPD Hub, hub@epdhub.com |
| Reference standard | EN 15804+A2:2019 and ISO 14025 |
| PCR | EPD Hub Core PCR version 1.0, 1 Feb 2022 |
| Sector | Construction product |
| Category of EPD | Third party verified EPD |
| Scope of the EPD | Cradle to gate with options A4-A5 and modules C1-C4, D. |
| EPD author | Harry Wissander |
| EPD verification | Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal certification <input checked="" type="checkbox"/> External verification |
| EPD verifier | Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited |

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

| | |
|-----------------------------------|-----------------------------|
| Product name | Puucomp Premium Panel. |
| Additional labels | - |
| Product reference | - |
| Place of production | Kristiinankaupunki, Finland |
| Period for data | Calendar year 2022 |
| Averaging in EPD | No averaging |
| Variation in GWP-fossil for A1-A3 | % |

ENVIRONMENTAL DATA SUMMARY

| | |
|---------------------------------|----------|
| Declared unit | 1 m2 |
| Declared unit mass | 11 kg |
| GWP-fossil, A1-A3 (kgCO2e) | 3,15E+00 |
| GWP-total, A1-A3 (kgCO2e) | 2,15E+00 |
| Secondary material, inputs (%) | 14.9 |
| Secondary material, outputs (%) | 4.18 |
| Total energy use, A1-A3 (kWh) | 87.4 |
| Total water use, A1-A3 (m3e) | 7,92E-02 |

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Puucomp Oy Ab is a manufacturer and seller of interior panels for walls and ceilings (since 1987). Our main products are wood veneered, fibre gypsum boards with fire and M1 (indoor emission) classifications.

PRODUCT DESCRIPTION

The Puucomp Premium panels can be produced with a fibrous gypsum plaster board core that is highly durable and provides excellent sound insulation. Depending on your needs, other materials can also be used as the core. The core material is coated with the desired material, and it can also be perforated in accordance with acoustic and visual requirements. Finally, the panel is finished with the chosen surface treatment. Each stage of the manufacturing of Puucomp Premium panels requires precision and skilled workers. We produce perforations based on our customers' requests. Perforation models range from large visible perforations to indistinguishable nano perforations. In addition to the stock models, we can also produce individual perforations. Perforations can be produced for all Puucomp panels.

Further information can be found at www.puucomp.fi.

PRODUCT RAW MATERIAL MAIN COMPOSITION

| Raw material category | Amount, mass- % | Material origin |
|-----------------------|-----------------|-----------------|
| Metals | 0 | - |
| Minerals | 90 | Germany |
| Fossil materials | 2 | Finland |
| Bio-based materials | 8 | Germany |

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

| | |
|--|------|
| Biogenic carbon content in product, kg C | 0.39 |
| Biogenic carbon content in packaging, kg C | 0.5 |

FUNCTIONAL UNIT AND SERVICE LIFE

| | |
|------------------------|------------------|
| Declared unit | 1 m ² |
| Mass per declared unit | 11 kg |
| Functional unit | - |
| Reference service life | - |

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

| Product stage | | | Assembly stage | | Use stage | | | | | | | End of life stage | | | | Beyond the system boundaries | | |
|---------------|-----------|---------------|----------------|----------|-----------|-------------|---------|-------------|---------------|------------------------|-----------------------|-------------------|-----------|------------------|----------|------------------------------|----------|-----------|
| A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D | | |
| x | x | x | MN D | MN D | MN D | MN D | MN D | MN D | MN D | MN D | MN D | x | x | x | x | x | | |
| Raw materials | Transport | Manufacturing | Transport | Assembly | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | Deconstr./demol. | Transport | Waste processing | Disposal | Reuse | Recovery | Recycling |

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The product is made of wood fibres and gypsum mass with outer layer of wooden veneer. The materials are transported to Oy Puucomp Ab's production facility for manufacturing. The manufacturing process requires electricity for the different equipment. Certain ancillary materials are also included. The product is finally packed with packaging board and packaging film, and sent to the customer on a wooden pallet.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The transportation distance is defined according to the PCR. Average distance of transportation from production plant to building site (in Helsinki) is assumed as 300 km and the transportation method is assumed to be lorry. Vehicle capacity utilization volume factor is assumed to be 100 % which means full load. In reality, it may vary but as role of transportation emissions in total results is small, the variety in load is assumed to be negligible. Empty returns are not taken into account as it is assumed that return trip is used by the transportation company to serve the needs of other clients. Transportation does not cause losses as product is packaged properly. Also, volume capacity utilisation factor is assumed to be 100 % for the nested packaged products. During installation, a little waste is generated because of packaging materials. Steel screws is assumed to be used for installation of the product in the building site. The wooden pallet are assumed to be reused while packaging board and film used during transportation are recycled.

PRODUCT USE AND MAINTENANCE (B1-B7)

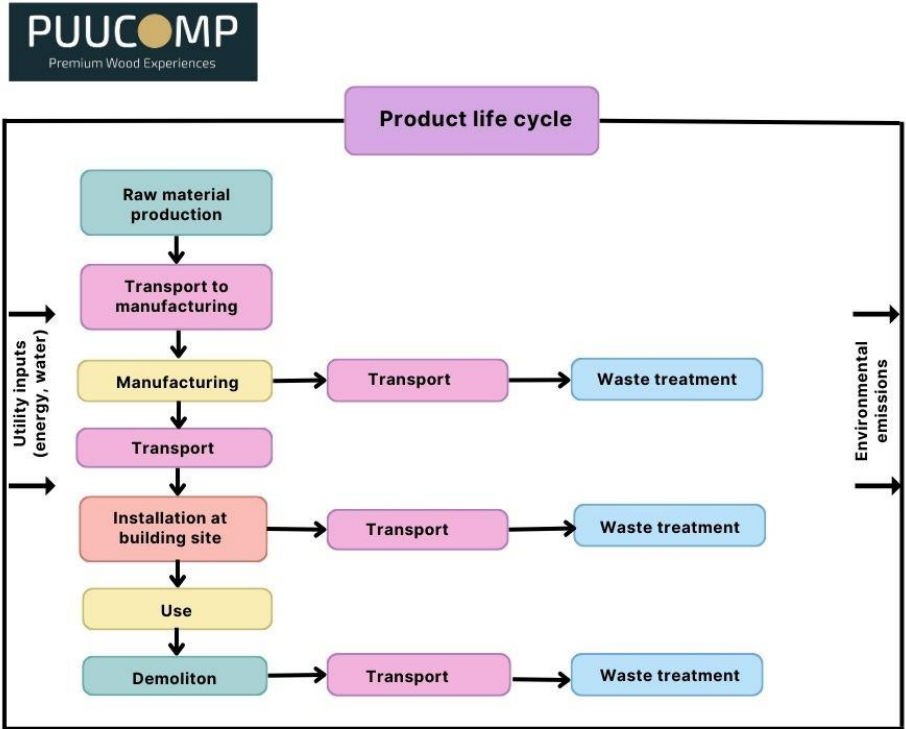
This EPD does not cover the use phase.

Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy in demolition process is assumed to be 0.005 kWh/kg. It is assumed that the waste is collected as mixed construction waste and transported to the waste treatment center. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). There is no procedure related to recycling, reuse or repurpose for lifetime completed products (C3) except steel screws where 85 % is sent to recycling and 15 % to landfill. The fiber gypsum, Hardener, Glue and binder waste are deposited in landfill (C4). The benefits and loads in module D are calculated for package and steel that are sent for reuse or recycling.

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

| Data type | Allocation |
|--------------------------------|-----------------------------|
| Raw materials | Allocated by mass or volume |
| Packaging materials | Allocated by mass or volume |
| Ancillary materials | Allocated by mass or volume |
| Manufacturing energy and waste | Allocated by mass or volume |

AVERAGES AND VARIABILITY

| | |
|-----------------------------------|----------------|
| Type of average | No averaging |
| Averaging method | Not applicable |
| Variation in GWP-fossil for A1-A3 | % |

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.8, Plastics Europe, Federal LCA Commons and One Click LCA databases as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|-------------------------------------|------------------------|----------|----------|-----------|-----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|-----------|-----------|
| GWP – total ¹⁾ | kg CO ₂ e | 3,21E+00 | 1,57E-01 | -1,22E+00 | 2,15E+00 | 3,24E-01 | 3,15E+00 | MND | MND | MND | MND | MND | MND | MND | 1,66E-03 | 5,04E-02 | 1,47E+00 | -2,23E+00 | -3,39E+00 |
| GWP – fossil | kg CO ₂ e | 2,37E+00 | 1,57E-01 | 6,16E-01 | 3,15E+00 | 3,24E-01 | 1,30E+00 | MND | MND | MND | MND | MND | MND | MND | 1,65E-03 | 5,04E-02 | 2,39E-02 | 4,95E-02 | -1,52E+00 |
| GWP – biogenic | kg CO ₂ e | 8,32E-01 | 0,00E+00 | -1,84E+00 | -1,01E+00 | 0,00E+00 | 1,85E+00 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 1,44E+00 | -2,28E+00 | -1,87E+00 |
| GWP – LULUC | kg CO ₂ e | 1,76E-03 | 7,16E-05 | 5,79E-03 | 7,62E-03 | 1,20E-04 | 1,44E-03 | MND | MND | MND | MND | MND | MND | MND | 1,65E-07 | 1,86E-05 | 1,88E-05 | 4,68E-05 | -3,41E-03 |
| Ozone depletion pot. | kg CFC ₁₁ e | 2,51E-08 | 3,50E-08 | 5,55E-08 | 1,16E-07 | 7,45E-08 | 1,10E-07 | MND | MND | MND | MND | MND | MND | MND | 3,54E-10 | 1,16E-08 | 2,27E-09 | 2,00E-08 | -7,69E-08 |
| Acidification potential | mol H ⁺ e | 3,51E-03 | 1,73E-03 | 4,51E-03 | 9,75E-03 | 1,37E-03 | 5,64E-03 | MND | MND | MND | MND | MND | MND | MND | 1,72E-05 | 2,13E-04 | 2,78E-04 | 4,66E-04 | -9,37E-03 |
| EP-freshwater ²⁾ | kg Pe | 1,36E-05 | 1,11E-06 | 6,71E-05 | 8,19E-05 | 2,65E-06 | 7,43E-05 | MND | MND | MND | MND | MND | MND | MND | 5,48E-09 | 4,13E-07 | 7,72E-07 | 5,19E-07 | -1,19E-04 |
| EP-marine | kg Ne | 1,02E-03 | 4,51E-04 | 1,23E-03 | 2,70E-03 | 4,08E-04 | 1,18E-03 | MND | MND | MND | MND | MND | MND | MND | 7,61E-06 | 6,35E-05 | 9,46E-05 | 1,61E-04 | -1,75E-03 |
| EP-terrestrial | mol Ne | 1,13E-02 | 5,00E-03 | 1,16E-02 | 2,78E-02 | 4,50E-03 | 1,15E-02 | MND | MND | MND | MND | MND | MND | MND | 8,35E-05 | 7,00E-04 | 1,03E-03 | 1,77E-03 | -1,99E-02 |
| POCP (“smog”) ³⁾ | kg NMVOCe | 3,59E-03 | 1,40E-03 | 3,93E-03 | 8,91E-03 | 1,44E-03 | 3,67E-03 | MND | MND | MND | MND | MND | MND | MND | 2,30E-05 | 2,24E-04 | 2,65E-04 | 5,16E-04 | -8,30E-03 |
| ADP-minerals & metals ⁴⁾ | kg Sbe | 3,48E-06 | 3,32E-07 | 5,88E-06 | 9,69E-06 | 7,60E-07 | 8,24E-06 | MND | MND | MND | MND | MND | MND | MND | 8,39E-10 | 1,18E-07 | 1,54E-06 | 1,14E-07 | -1,92E-05 |
| ADP-fossil resources | MJ | 4,27E+01 | 2,27E+00 | 2,53E+02 | 2,97E+02 | 4,87E+00 | 1,89E+01 | MND | MND | MND | MND | MND | MND | MND | 2,23E-02 | 7,57E-01 | 2,61E-01 | 1,36E+00 | -1,64E+01 |
| Water use ⁵⁾ | m ³ e depr. | 4,49E-01 | 9,44E-03 | 2,73E+00 | 3,19E+00 | 2,18E-02 | 6,40E-01 | MND | MND | MND | MND | MND | MND | MND | 5,98E-05 | 3,39E-03 | 5,85E-02 | 4,31E-03 | -4,89E-01 |

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO₄e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|----------------------------------|-----------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| Particulate matter | Incidence | 8,90E-08 | 1,50E-08 | 1,19E-07 | 2,23E-07 | 3,73E-08 | 7,50E-08 | MND | MND | MND | MND | MND | MND | MND | 4,61E-10 | 5,81E-09 | 3,31E-09 | 9,38E-09 | -1,43E-07 |
| Ionizing radiation ⁶⁾ | kBq U235e | 1,07E-01 | 1,07E-02 | 1,34E+01 | 1,35E+01 | 2,32E-02 | 2,90E-01 | MND | MND | MND | MND | MND | MND | MND | 1,02E-04 | 3,61E-03 | 1,93E-03 | 6,14E-03 | -1,19E-01 |
| Ecotoxicity (freshwater) | CTUe | 9,82E+00 | 1,91E+00 | 5,28E+01 | 6,46E+01 | 4,38E+00 | 3,19E+01 | MND | MND | MND | MND | MND | MND | MND | 1,34E-02 | 6,81E-01 | 8,87E-01 | 8,86E-01 | -6,56E+01 |
| Human toxicity, cancer | CTUh | 4,66E-10 | 6,22E-11 | 2,98E-09 | 3,51E-09 | 1,08E-10 | 1,90E-08 | MND | MND | MND | MND | MND | MND | MND | 5,13E-13 | 1,67E-11 | 5,71E-11 | 2,21E-11 | -7,14E-09 |
| Human tox. non-cancer | CTUh | 2,51E-08 | 1,79E-09 | 1,62E-08 | 4,31E-08 | 4,33E-09 | 2,59E-08 | MND | MND | MND | MND | MND | MND | MND | 9,68E-12 | 6,74E-10 | 2,68E-09 | 5,79E-10 | 1,08E-07 |
| SQP ⁷⁾ | - | 1,03E+02 | 2,14E+00 | 1,44E+02 | 2,49E+02 | 5,61E+00 | 7,60E+00 | MND | MND | MND | MND | MND | MND | MND | 2,89E-03 | 8,73E-01 | 3,40E-01 | 2,90E+00 | -1,36E+02 |

6) EN 15804+A2 disclaimer for ionizing radiation, human health. 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; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|------------------------------------|----------------|----------|----------|----------|----------|----------|-----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy ⁸⁾ | MJ | 1,13E+01 | 2,35E-02 | 1,11E+01 | 2,25E+01 | 5,48E-02 | 2,33E+00 | MND | MND | MND | MND | MND | MND | MND | 1,27E-04 | 8,53E-03 | 2,95E-02 | 1,18E-02 | -1,01E+01 |
| Renew. PER as material | MJ | 2,85E+01 | 0,00E+00 | 1,50E+01 | 4,35E+01 | 0,00E+00 | -1,57E+01 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | -7,22E+00 | -2,06E+01 | -8,36E+00 |
| Total use of renew. PER | MJ | 3,98E+01 | 2,35E-02 | 2,62E+01 | 6,60E+01 | 5,48E-02 | -1,34E+01 | MND | MND | MND | MND | MND | MND | MND | 1,27E-04 | 8,53E-03 | -7,19E+00 | -2,06E+01 | -1,85E+01 |
| Non-re. PER as energy | MJ | 3,80E+01 | 2,27E+00 | 2,51E+02 | 2,92E+02 | 4,87E+00 | 1,89E+01 | MND | MND | MND | MND | MND | MND | MND | 2,23E-02 | 7,57E-01 | 2,61E-01 | 1,36E+00 | -1,54E+01 |
| Non-re. PER as material | MJ | 4,68E+00 | 0,00E+00 | 1,01E+00 | 5,69E+00 | 0,00E+00 | -1,05E+00 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | -4,64E+00 | 1,70E-01 |
| Total use of non-re. PER | MJ | 4,27E+01 | 2,27E+00 | 2,52E+02 | 2,97E+02 | 4,87E+00 | 1,78E+01 | MND | MND | MND | MND | MND | MND | MND | 2,23E-02 | 7,57E-01 | 2,61E-01 | -3,28E+00 | -1,52E+01 |
| Secondary materials | kg | 1,64E+00 | 7,15E-04 | 4,83E-02 | 1,69E+00 | 1,35E-03 | 7,33E-01 | MND | MND | MND | MND | MND | MND | MND | 8,71E-06 | 2,10E-04 | 4,30E-04 | 2,85E-04 | 4,79E-01 |
| Renew. secondary fuels | MJ | 1,77E-05 | 5,61E-06 | 5,36E-01 | 5,36E-01 | 1,36E-05 | 6,15E-04 | MND | MND | MND | MND | MND | MND | MND | 2,85E-08 | 2,12E-06 | 9,38E-06 | 7,45E-06 | -5,36E-01 |
| Non-ren. secondary fuels | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Use of net fresh water | m ³ | 1,46E-02 | 2,63E-04 | 6,43E-02 | 7,92E-02 | 6,30E-04 | 1,52E-02 | MND | MND | MND | MND | MND | MND | MND | 1,35E-06 | 9,81E-05 | -8,69E-05 | 1,49E-03 | -1,06E-02 |

8) PER = Primary energy resources.

END OF LIFE – WASTE

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---------------------|------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| Hazardous waste | kg | 1,36E-02 | 3,03E-03 | 1,08E-01 | 1,25E-01 | 6,45E-03 | 4,08E-01 | MND | MND | MND | MND | MND | MND | MND | 2,98E-05 | 1,00E-03 | 1,03E-03 | 0,00E+00 | -4,05E-01 |
| Non-hazardous waste | kg | 3,38E-01 | 4,44E-02 | 1,57E+00 | 1,96E+00 | 1,06E-01 | 3,01E+00 | MND | MND | MND | MND | MND | MND | MND | 2,09E-04 | 1,65E-02 | 8,65E-01 | 9,40E+00 | -4,91E+00 |
| Radioactive waste | kg | 1,14E-03 | 1,54E-05 | 3,20E-03 | 4,35E-03 | 3,26E-05 | 9,97E-05 | MND | MND | MND | MND | MND | MND | MND | 1,57E-07 | 5,07E-06 | 8,87E-07 | 0,00E+00 | -4,31E-05 |

END OF LIFE – OUTPUT FLOWS

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|--------------------------|------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|----------|
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 9,58E-01 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Materials for recycling | kg | 0,00E+00 | 0,00E+00 | 2,98E-05 | 2,98E-05 | 0,00E+00 | 1,97E-01 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 5,10E-01 | 0,00E+00 | 0,00E+00 |
| Materials for energy rec | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | MND | MND | MND | MND | MND | MND | 0,00E+00 | 0,00E+00 | 5,30E+00 | 0,00E+00 | 0,00E+00 |

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|----------------------|------------------------------------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| Global Warming Pot. | kg CO ₂ e | 2,76E+00 | 3,18E+00 | 6,09E-01 | 6,54E+00 | 3,21E-01 | 1,31E+00 | MND | MND | MND | MND | MND | MND | MND | 1,64E-03 | 4,99E-02 | 2,31E-02 | 4,85E-02 | -1,47E+00 |
| Ozone depletion Pot. | kg CFC ₁₁ e | 1,17E-07 | 5,77E-07 | 4,65E-08 | 7,41E-07 | 5,90E-08 | 9,43E-08 | MND | MND | MND | MND | MND | MND | MND | 2,80E-10 | 9,19E-09 | 1,88E-09 | 1,59E-08 | -6,47E-08 |
| Acidification | kg SO ₂ e | 1,59E-02 | 1,77E-02 | 3,61E-03 | 3,73E-02 | 1,07E-03 | 4,62E-03 | MND | MND | MND | MND | MND | MND | MND | 1,23E-05 | 1,66E-04 | 2,10E-04 | 3,52E-04 | -7,70E-03 |
| Eutrophication | kg PO ₄ ³ e | 4,32E-03 | 2,94E-03 | 2,22E-03 | 9,48E-03 | 2,43E-04 | 3,00E-03 | MND | MND | MND | MND | MND | MND | MND | 2,84E-06 | 3,78E-05 | 1,48E-04 | 7,59E-05 | -4,16E-03 |
| POCP (“smog”) | kg C ₂ H ₄ e | 8,37E-04 | 6,08E-04 | 2,89E-04 | 1,73E-03 | 4,16E-05 | 3,09E-04 | MND | MND | MND | MND | MND | MND | MND | 2,68E-07 | 6,48E-06 | 7,48E-06 | 1,47E-05 | -9,19E-04 |
| ADP-elements | kg Sbe | 7,11E-06 | 1,04E-05 | 6,39E-06 | 2,39E-05 | 7,36E-07 | 8,02E-06 | MND | MND | MND | MND | MND | MND | MND | 8,26E-10 | 1,14E-07 | 1,53E-06 | 1,12E-07 | -1,92E-05 |
| ADP-fossil | MJ | 3,60E+01 | 4,67E+01 | 2,53E+02 | 3,35E+02 | 4,87E+00 | 1,89E+01 | MND | MND | MND | MND | MND | MND | MND | 2,23E-02 | 7,57E-01 | 2,60E-01 | 1,36E+00 | -1,63E+01 |

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? [Read more online](#)

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

22.03.2024

