



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Elastolit 001 Nordic Waterproofing AB



EPD HUB, HUB-3519 Published on 20.06.2025, last updated on 20.06.2025, valid until 20.06.2030

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.



Created with One Click LCA





GENERAL INFORMATION

MANUFACTURER

| Manufacturer | Nordic Waterproofing AB |
|---------------------|--|
| Address | Bruksgatan 42, 263 39 Höganäs |
| Contact details | info@trebolit.se |
| Website | www.trebolit.se |
| EPD STANDARDS, SCOP | E AND VERIFICATION |
| Program operator | EPD Hub, hub@epdhub.com |
| Reference standard | EN 15804+A2:2019 and ISO 14025 |
| PCR | EPD Hub Core PCR Version 1.1, 5 Dec 2023 EN 17388-1 Flexible sheets for waterproofing |
| Sector | Construction product |
| Category of EPD | Third party verified EPD |
| Parent EPD number | - |
| Scope of the EPD | Cradle to gate with options, A4-A5, and modules C1-C4, D |
| EPD author | Siv Persson Hansen |
| EPD verification | Independent verification of this EPD and data, according to ISO 14025: □ Internal verification ☑ External verification |
| EPD verifier | Imane Uald Lamkaddam as an authorized verifier for EPD Hub |
| | |

This EPD is intended for business-to-business and/or business-to-consumer communication. 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.

NORDIC WATERPROOFING

PRODUCT

| Product name | Elastolit 001 |
|--|--------------------|
| Additional labels | |
| Product reference | - |
| Place of production | Höganäs, Sweden |
| Period for data | Calendar year 2022 |
| Averaging in EPD | No averaging |
| Variation in GWP-fossil for A1-A3 (%) | - |
| GTIN (Global Trade Item Number) | - |
| NOBB (Norwegian Building Product Database) | - |

ENVIRONMENTAL DATA SUMMARY

| Declared unit | 1 m2 of installed product |
|---|---------------------------|
| Declared unit mass | 6,118 kg |
| GWP-fossil, A1-A3 (kgCO ₂ e) | 2,89E+00 |
| GWP-total, A1-A3 (kgCO2e) | 2,96E+00 |
| Secondary material, inputs (%) | 4,61 |
| Secondary material, outputs (%) | 100 |
| Total energy use, A1-A3 (kWh) | 14,4 |
| Net freshwater use, A1-A3 (m ³) | 0,33 |



PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Nordic Waterproofing AB is one of Nordic's leading producers and suppliers of waterproofing products and services for buildings and infrastructure. With a history dating back to 1889, the company has over 130 years of experience in developing solutions tailored to the Nordic climate. Nordic Waterproofing AB offers a comprehensive range of products, including waterproofing membranes for flat and pitched roofing, underlayers and barriers to buildings. Furthermore, the company offers a diverse range of complementary products and accessories such as the NWP Solar, which enable the integration of renewable energy systems into roofing projects.

Nordic Waterproofing's products are characterized by:

- High quality
- Local adaptation
- Ease of installation
- Energy and environmental awareness
- Long service life

Nordic Waterproofing AB is a key member of the Nordic Waterproofing Group, a prominent entity in the European waterproofing industry. The Group is recognized for its extensive range of innovative waterproofing products and services tailored for buildings and infrastructure.

PRODUCT DESCRIPTION

Welded waterproofing membrane for exposed roofs. Elastolit 001 is a 1-layer waterproofing system for low-sloping roofs. The product is mainly intended for new construction and can be installed on most existing substrates such as mineral wool insulation, concrete, tongued and grooved board/plywood. The product is approved as a substrate for superstructure of solar panels, sedum roofs, wooden decking and shingles. Elastolit 001 is listed in

TÄTSKIKTSGARANTIER[™]s list of approved waterproofing systems for exposed roofs. Elastolit 001 is CE marked according to EN 13707.

Further information can be found at www.trebolit.se.

PRODUCT RAW MATERIAL MAIN COMPOSITION

| Raw material category | Amount, mass % | Material origin |
|-----------------------|----------------|-----------------|
| Metals | - | - |
| Minerals | 30-40 | Sweden |
| Fossil materials | 60-70 | EU & World |
| Bio-based materials | - | - |

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

| Biogenic carbon content in product, kg C | 0 |
|--|---------|
| Biogenic carbon content in packaging, kg C | 0,00152 |

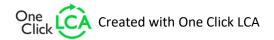


FUNCTIONAL UNIT AND SERVICE LIFE

| Declared unit | 1 m2 of installed product |
|------------------------|---------------------------|
| Mass per declared unit | 6,118 kg |
| Functional unit | 1 m2 of installed product |
| Reference service life | 50 |

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.

| Pro | duct s | tage | | mbly age | | | U | se sta | ge | | | E | nd of li | ife sta | ge | Beyond the system boundaries | | | | | | |
|---------------|-----------|---------------|-----------|-------------|-----|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|------------------------------------|----------|-----------|--|--|--|--|
| A1 | A2 | A3 | A4 | A5 | B1 | B2 | В3 | B4 | В5 | B6 | B7 | C1 | C2 | СЗ | C4 | D | | | | | | |
| × | × | × | × | × | MND | MND | MND | MND | MND | MND | MND | × | × | × | × | × | | | | | | |
| Raw materials | Transport | Manufacturing | Transport | Assembly | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | Deconstruction/ demolition | 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.

Bituminous waterproofing membranes are produced by a continuous process at the factory in Höganäs, Sweden. At the manufacturing site, the raw materials—bitumen, polymers, and fillers—are heated and mixed. A reinforcement is impregnated and coated with this bitumen mixture. The resulting membrane is covered with slates and film. Subsequently, the product is cooled, rolled, and packed on a wooden pallet. The pallet is wrapped with polyethylene packaging film before being sent to customers. The manufacturing process uses only electricity from renewable sources.

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 average distance for product delivery from the production plant to the construction site is 529 km. This is based on the annual sales volume of the product. The transport method is lorry, and the volume capacity utilization factor is assumed to be 100%. Empty returns are not considered since it is assumed that the return trip can be used by other clients. Since products are packed properly, there are no losses during transportation.

The installation loss of the product is estimated to be 0.5%. Installation is done by torching of the edges and with mechanical fasteners such as screws and polypropylene thermal break tubes. The emissions from the average weight of the installed mechanical fasteners are included in this study. Waste from installation is classified as materials that are recycled or incinerated with energy recovery. The assumed transport distance for waste handling is 100 km.



PRODUCT USE AND MAINTENANCE (B1-B7)

During the use stage (B1-B7) there is no environmental impact caused by the product. There are no emissions and no consumption of raw materials. There is no need for maintenance, repair, replacement or renovation during the use of the product, under standard conditions. The product does not consume energy or water during its life. The scenarios included are representative of the most likely alternatives.

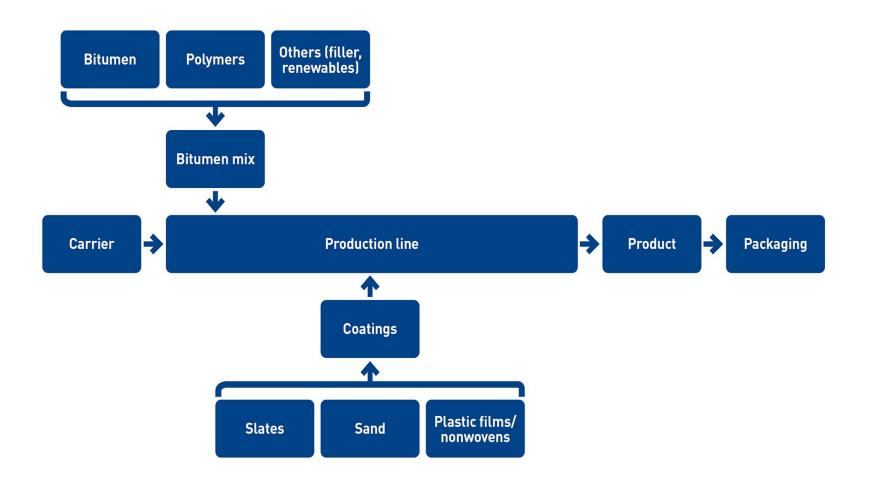
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

At the end-of-life stage, it is assumed that the product will be dismantled manually and thus will not require any processes with an environmental impact. The waste is collected as separate construction waste and sent to the closest facility for waste treatment. The transportation distance to the nearest waste treatment facility (that can shred and prepare the membranes for recycling) is estimated to be 300 km, and the transportation method is lorry. The diesel and electricity used to shred the sheets prior to recycling are included in this study. The bitumen membranes are assumed to be recycled and used in asphalt manufacturing to replace virgin materials in road paving.



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.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC2021 and JRC EF 3.1.

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 | No allocation |
| Packaging material | No allocation |
| Ancillary materials | Allocated by mass or volume |
| Manufacturing energy and waste | Allocated by mass or volume |

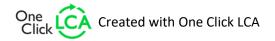
AVERAGES AND VARIABILITY

| 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 v3.10.1 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.





ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | СЗ | C4 | D |
|------------------------------|--------------|----------|----------|-----------|-----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| GWP – total ¹⁾ | kg CO₂e | 2,36E+00 | 4,53E-01 | 1,48E-01 | 2,96E+00 | 6,39E-01 | 5,13E-01 | MND | 0,00E+00 | 3,59E-01 | 6,07E-02 | 5,25E-05 | -9,54E-01 |
| GWP – fossil | kg CO₂e | 2,28E+00 | 4,52E-01 | 1,54E-01 | 2,89E+00 | 6,39E-01 | 5,07E-01 | MND | 0,00E+00 | 3,58E-01 | 6,05E-02 | 5,24E-05 | -9,52E-01 |
| GWP – biogenic | kg CO₂e | 0,00E+00 | 0,00E+00 | -5,56E-03 | -5,56E-03 | 0,00E+00 | 5,57E-03 | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | -2,10E-03 |
| GWP – LULUC | kg CO₂e | 8,26E-02 | 1,87E-04 | 7,85E-05 | 8,28E-02 | 2,29E-04 | 5,94E-04 | MND | 0,00E+00 | 1,59E-04 | 1,98E-04 | 3,00E-08 | 3,33E-05 |
| Ozone depletion pot. | kg CFC-11e | 1,39E-07 | 8,32E-09 | 4,69E-09 | 1,52E-07 | 1,27E-08 | 4,27E-08 | MND | 0,00E+00 | 5,01E-09 | 8,00E-10 | 1,52E-12 | -7,44E-08 |
| Acidification potential | mol H⁺e | 1,08E-02 | 1,41E-03 | 4,69E-04 | 1,27E-02 | 1,33E-03 | 1,54E-03 | MND | 0,00E+00 | 1,19E-03 | 4,60E-04 | 3,72E-07 | -7,15E-03 |
| EP-freshwater ²⁾ | kg Pe | 9,51E-05 | 3,28E-05 | 2,74E-05 | 1,55E-04 | 4,30E-05 | 1,08E-04 | MND | 0,00E+00 | 2,79E-05 | 3,67E-06 | 4,31E-09 | -9,30E-05 |
| EP-marine | kg Ne | 1,26E-02 | 4,07E-04 | 1,08E-04 | 1,31E-02 | 3,19E-04 | 4,31E-04 | MND | 0,00E+00 | 3,87E-04 | 2,12E-04 | 1,42E-07 | -1,80E-02 |
| EP-terrestrial | mol Ne | 1,79E-02 | 4,42E-03 | 1,14E-03 | 2,35E-02 | 3,44E-03 | 3,89E-03 | MND | 0,00E+00 | 4,21E-03 | 2,25E-03 | 1,55E-06 | -1,37E-03 |
| POCP ("smog") ³) | kg NMVOCe | 1,74E-02 | 2,12E-03 | 6,50E-04 | 2,02E-02 | 2,21E-03 | 1,60E-03 | MND | 0,00E+00 | 1,66E-03 | 6,71E-04 | 5,54E-07 | -6,62E-03 |
| ADP-minerals & metals⁴) | kg Sbe | 2,50E-04 | 1,27E-06 | 4,27E-07 | 2,52E-04 | 2,13E-06 | 3,16E-06 | MND | 0,00E+00 | 1,18E-06 | 1,64E-07 | 8,33E-11 | -2,34E-06 |
| ADP-fossil resources | MJ | 1,70E+02 | 6,69E+00 | 1,81E+00 | 1,78E+02 | 8,98E+00 | 1,02E+01 | MND | 0,00E+00 | 5,03E+00 | 8,78E-01 | 1,29E-03 | -2,13E+02 |
| Water use ⁵⁾ | m³e depr. | 8,64E-01 | 3,36E-02 | 4,33E-02 | 9,41E-01 | 4,47E-02 | 1,69E-01 | MND | 0,00E+00 | 2,33E-02 | 1,54E-02 | 3,71E-06 | -1,38E-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

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | С3 | C4 | D |
|----------------------------------|---------------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| Particulate matter | Incidence | 6,94E+00 | 4,42E-08 | 2,25E-08 | 6,94E+00 | 4,71E-08 | 3,47E-02 | MND | 0,00E+00 | 2,84E-08 | 1,26E-08 | 8,46E-12 | -1,19E+01 |
| Ionizing radiation ⁶⁾ | kBq 11235e | 3,56E-01 | 7,15E-03 | 5,79E-03 | 3,69E-01 | 1,16E-02 | 2,71E-02 | MND | 0,00E+00 | 4,07E-03 | 1,66E-02 | 8,09E-07 | -7,72E-02 |
| Ecotoxicity (freshwater) | CTUe | 4,83E+00 | 8,46E-01 | 6,04E-01 | 6,28E+00 | 1,19E+00 | 1,78E+00 | MND | 0,00E+00 | 7,95E-01 | 9,14E-02 | 1,08E-04 | -4,62E-01 |
| Human toxicity, cancer | CTUh | 1,27E-08 | 7,53E-11 | 8,91E-11 | 1,29E-08 | 1,07E-10 | 3,22E-10 | MND | 0,00E+00 | 6,09E-11 | 1,22E-11 | 9,67E-15 | -2,48E-09 |
| Human tox. non-cancer | CTUh | 8,29E-01 | 4,30E-09 | 1,30E-09 | 8,29E-01 | 5,68E-09 | 4,15E-03 | MND | 0,00E+00 | 3,15E-09 | 2,71E-10 | 2,22E-13 | -1,42E+00 |
| SQP ⁷⁾ | - | 4,25E+00 | 6,67E+00 | 8,87E-01 | 1,18E+01 | 5,43E+00 | 1,18E+00 | MND | 0,00E+00 | 3,00E+00 | 1,82E-01 | 2,53E-03 | -7,89E-01 |

6) EN 15804+A2 disclaimer for lonizing 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 | СЗ | C4 | D |
|------------------------------------|----------------|----------|----------|-----------|----------|----------|-----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|-----------|----------|-----------|
| Renew. PER as energy ⁸⁾ | MJ | 2,20E+00 | 1,02E-01 | 1,72E+00 | 4,02E+00 | 1,57E-01 | 8,06E-02 | MND | 0,00E+00 | 6,90E-02 | 1,60E-01 | 1,24E-05 | -2,79E-01 |
| Renew. PER as material | MJ | 8,60E-03 | 0,00E+00 | 3,65E-02 | 4,51E-02 | 0,00E+00 | -4,87E-02 | MND | 0,00E+00 | 0,00E+00 | -8,35E-03 | 0,00E+00 | 1,80E-02 |
| Total use of renew. PER | MJ | 2,21E+00 | 1,02E-01 | 1,76E+00 | 4,07E+00 | 1,57E-01 | 3,19E-02 | MND | 0,00E+00 | 6,90E-02 | 1,51E-01 | 1,24E-05 | -2,61E-01 |
| Non-re. PER as energy | MJ | 4,06E+01 | 6,69E+00 | 3,77E-01 | 4,77E+01 | 8,98E+00 | 5,62E+00 | MND | 0,00E+00 | 5,03E+00 | -2,01E+00 | 1,29E-03 | -1,60E+01 |
| Non-re. PER as material | MJ | 1,29E+02 | 0,00E+00 | -1,38E+00 | 1,27E+02 | 0,00E+00 | -5,28E-01 | MND | 0,00E+00 | 0,00E+00 | -1,27E+02 | 0,00E+00 | 2,41E+00 |
| Total use of non-re. PER | MJ | 1,69E+02 | 6,69E+00 | -1,00E+00 | 1,75E+02 | 8,98E+00 | 5,10E+00 | MND | 0,00E+00 | 5,03E+00 | -1,29E+02 | 1,29E-03 | -1,36E+01 |
| Secondary materials | kg | 2,82E-01 | 2,88E-03 | 1,87E-03 | 2,87E-01 | 4,17E-03 | 1,88E-02 | MND | 0,00E+00 | 2,26E-03 | 5,24E-04 | 3,23E-07 | 1,21E-01 |
| Renew. secondary fuels | MJ | 8,61E-06 | 3,61E-05 | 1,95E-03 | 2,00E-03 | 5,27E-05 | 8,11E-05 | MND | 0,00E+00 | 2,88E-05 | 3,40E-06 | 6,70E-09 | -1,27E-05 |
| Non-ren. secondary fuels | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Use of net fresh water | m ³ | 2,07E-01 | 9,82E-04 | 1,20E-01 | 3,28E-01 | 1,22E-03 | 1,88E+00 | MND | 0,00E+00 | 6,66E-04 | 3,56E-04 | 1,34E-06 | -6,03E-03 |

8) PER = Primary energy resources.



END OF LIFE – WASTE

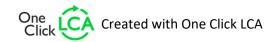
| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | С3 | C4 | D |
|----------------------------------|--|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| Hazardous waste | kg | 8,71E-03 | 1,03E-02 | 1,17E-02 | 3,07E-02 | 1,31E-02 | 7,28E-02 | MND | 0,00E+00 | 8,77E-03 | 1,65E-03 | 1,42E-06 | -3,27E-02 |
| Non-hazardous waste | kg | 1,14E+00 | 1,99E-01 | 8,01E-01 | 2,14E+00 | 2,76E-01 | 1,31E+00 | MND | 0,00E+00 | 1,64E-01 | 3,79E-02 | 3,25E-05 | -1,63E+00 |
| Radioactive waste | kg | 1,39E-03 | 1,76E-06 | 1,64E-06 | 1,39E-03 | 2,88E-06 | 1,25E-05 | MND | 0,00E+00 | 9,97E-07 | 3,56E-06 | 1,97E-10 | -2,31E-03 |
| END OF LIFE – OUTPUT FLOWS | | | | | | | | | | | | | | | | | | | |
| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | С3 | C4 | D |
| Components for re-use | kg | 0,00E+00 | 0,00E+00 | 9,18E-02 | 9,18E-02 | 0,00E+00 | 4,59E-04 | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Materials for recycling | kg | 1,47E-02 | 0,00E+00 | 4,25E-03 | 1,89E-02 | 0,00E+00 | 5,43E-03 | MND | 0,00E+00 | 0,00E+00 | 6,23E+00 | 0,00E+00 | 0,00E+00 |
| Materials for energy rec | kg | 0,00E+00 | 0,00E+00 | 1,22E-01 | 1,22E-01 | 0,00E+00 | 3,81E-02 | 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 | 8,73E-01 | 8,73E-01 | 0,00E+00 | 3,52E-01 | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy – Electricity | MJ | 0,00E+00 | 0,00E+00 | 1,33E-01 | 1,33E-01 | 0,00E+00 | 7,74E-02 | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy – Heat | MJ | 0,00E+00 | 0,00E+00 | 7,41E-01 | 7,41E-01 | 0,00E+00 | 2,75E-01 | MND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| ENVIRONMENTA | ENVIRONMENTAL IMPACTS – EN 15804+A1, CML | | | | | | | | | | | | | | | | | | |
| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | С3 | C4 | D |
| Global Warming Pot. | kg CO₂e | 2,36E+00 | 4,50E-01 | 1,57E-01 | 2,97E+00 | 6,34E-01 | 5,06E-01 | MND | 0,00E+00 | 3,57E-01 | 6,04E-02 | 5,20E-05 | -9,22E-01 |
| Ozone depletion Pot. | kg CFC-11e | 8,63E-07 | 6,63E-09 | 1,53E-09 | 8,71E-07 | 1,01E-08 | 1,10E-08 | MND | 0,00E+00 | 4,00E-09 | 6,38E-10 | 1,21E-12 | -6,10E-08 |
| Acidification | kg SO₂e | 9,51E-03 | 1,10E-03 | 3,68E-04 | 1,10E-02 | 1,07E-03 | 1,24E-03 | MND | 0,00E+00 | 9,15E-04 | 3,27E-04 | 2,75E-07 | -5,78E-03 |
| Eutrophication | kg PO₄³e | 4,24E-03 | 2,53E-04 | 7,79E-04 | 5,27E-03 | 2,70E-04 | 2,90E-04 | MND | 0,00E+00 | 2,23E-04 | 7,55E-05 | 8,75E-08 | -2,92E-03 |
| POCP ("smog") | kg C ₂ H ₄ e | 5,46E-04 | 9,91E-05 | 6,25E-05 | 7,08E-04 | 1,13E-04 | 1,44E-04 | MND | 0,00E+00 | 8,20E-05 | 2,47E-05 | 2,60E-08 | -2,28E-04 |
| ADP-elements | kg Sbe | 2,47E-04 | 1,24E-06 | 3,88E-07 | 2,49E-04 | 2,08E-06 | 3,12E-06 | MND | 0,00E+00 | 1,15E-06 | 1,63E-07 | 8,17E-11 | -2,32E-06 |
| ADP-fossil | MJ | 1,58E+02 | 6,57E+00 | 1,73E+00 | 1,66E+02 | 8,79E+00 | 9,73E+00 | MND | 0,00E+00 | 4,96E+00 | 6,57E-01 | 1,27E-03 | -2,13E+02 |



ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

| Impact category | Unit | A1 | A2 | A3 | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | С3 | C4 | D |
|-----------------------|---------|----------|----------|----------|----------|----------|----------|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|----------|-----------|
| GWP-GHG ⁹⁾ | kg CO₂e | 2,36E+00 | 4,53E-01 | 1,54E-01 | 2,97E+00 | 6,39E-01 | 5,08E-01 | MND | 0,00E+00 | 3,59E-01 | 6,07E-02 | 5,25E-05 | -9,52E-01 |

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.





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.

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited 20.06.2025



