



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Mataki

Halotex Wind Standard

Nordic Waterproofing AB



EPD HUB, HUB-6016

Published on 16.04.2026, last updated on 16.04.2026, valid until 15.04.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



Created with One Click LCA

NORDIC
WATERPROOFING

GENERAL INFORMATION

MANUFACTURER

| | |
|-----------------|---------------------------------------|
| Manufacturer | Nordic Waterproofing AB |
| Address | Bruksgatan 42, 263 39 Höganäs, Sweden |
| Contact details | info@mataki.com |
| Website | www.mataki.se |

EPD STANDARDS, SCOPE AND VERIFICATION

| | |
|--------------------|--|
| Program operator | EPD Hub, hub@epdhub.com |
| Reference standard | EN 15804:2012+A2:2019/AC:2021 and ISO 14025 |
| PCR | EPD Hub Core PCR Version 1.2, 24 Mar 2025 |
| 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 | Roula Toft, Nordic Waterproofing AB |
| EPD verification | Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification |
| EPD verifier | Sarah Curpen 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.

PRODUCT

| | |
|--|-----------------------------|
| Product name | Halotex Wind Standard |
| Additional labels | Halotex Wind Standard Black |
| Product reference | - |
| Place(s) of raw material origin | Europe |
| Place of production | Poland |
| Place(s) of installation and use | Sweden, Norway |
| Period for data | Calendar year 2022 |
| Averaging in EPD | No grouping |
| Variation in GWP-fossil for A1-A3 (%) | - |
| GTIN (Global Trade Item Number) | - |
| NOBB (Norwegian Building Product Database) | - |
| A1-A3 Specific data (%) | 100 |

ENVIRONMENTAL DATA SUMMARY

| | |
|---|----------------------|
| Declared unit | 1 m2 of wind barrier |
| Declared unit mass | 0,1 kg |
| Mass of packaging | 0,071 kg |
| GWP-fossil, A1-A3 (kgCO ₂ e) | 0,29 |
| GWP-total, A1-A3 (kgCO ₂ e) | 0,29 |
| Secondary material, inputs (%) | 0 |
| Secondary material, outputs (%) | 23,3 |
| Total energy use, A1-A3 (kWh) | 1,37 |
| Net freshwater use, A1-A3 (m ³) | 0 |

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

Halotex Wind Standard is a wind barrier membrane used behind façade cladding to protect insulation and wall structures from wind exposure. The product can be used for both new construction and renovation projects where optimal insulation performance is desired. The wind barrier is installed behind exterior panels or other façade cladding and acts as an active shield against weather impact while also enhancing the building’s energy efficiency. Halotex Wind Standard is technically defined by EN

13859-2 (Flexible sheets for waterproofing and underlays for walls). Although the Reference Service Life (RSL) is not explicitly specified, it can be assumed that the membranes’ lifespan aligns with that of the buildings and structures in which they are installed, which is approximately 50 years.

Further information can be found at:
www.mataki.se

PRODUCT RAW MATERIAL MAIN COMPOSITION

| Raw material category | Amount, mass % | Material origin |
|-----------------------|----------------|-----------------|
| Metals | - | |
| Minerals | 15-25 | Europe |
| Fossil materials | 75-85 | Europe |
| 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 | 0,0231 |

FUNCTIONAL UNIT AND SERVICE LIFE

| | |
|------------------------|----------------------|
| Declared unit | 1 m2 of wind barrier |
| Mass per declared unit | 0,1 kg |
| Functional unit | - |
| Reference service life | 50 years |

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 | x | x | ND | ND | ND | ND | ND | ND | ND | x | x | x | x | x | | |
| 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 |

Not declared = ND.

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 stage also includes the environmental impacts associated with the transport of raw materials to the manufacturing site in Charzastowice, including fuel production and fuel combustion during transport. After manufacturing, the plastic membranes are transported to Nordic Waterproofing's storage facility in Höganäs and subsequently distributed to customers. The transport distance is estimated at 870 km by truck. During manufacturing, inputs and outputs of the consumption of electricity, heat, water and fuels, as well as the generation of waste are allocated based on the weight of the membranes produced.

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 to 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 5%. Installation is done with mechanical fasteners such as nails or staples. The emissions from the average weight of the installed mechanical fasteners are included in this study. Longitudinal overlap and overlap at the edges need to be considered when calculating roof structures. Waste from installation is classified as materials that are recycled. The assumed transport distance for waste handling is included in this study.

PRODUCT USE AND MAINTENANCE (B1-B7)

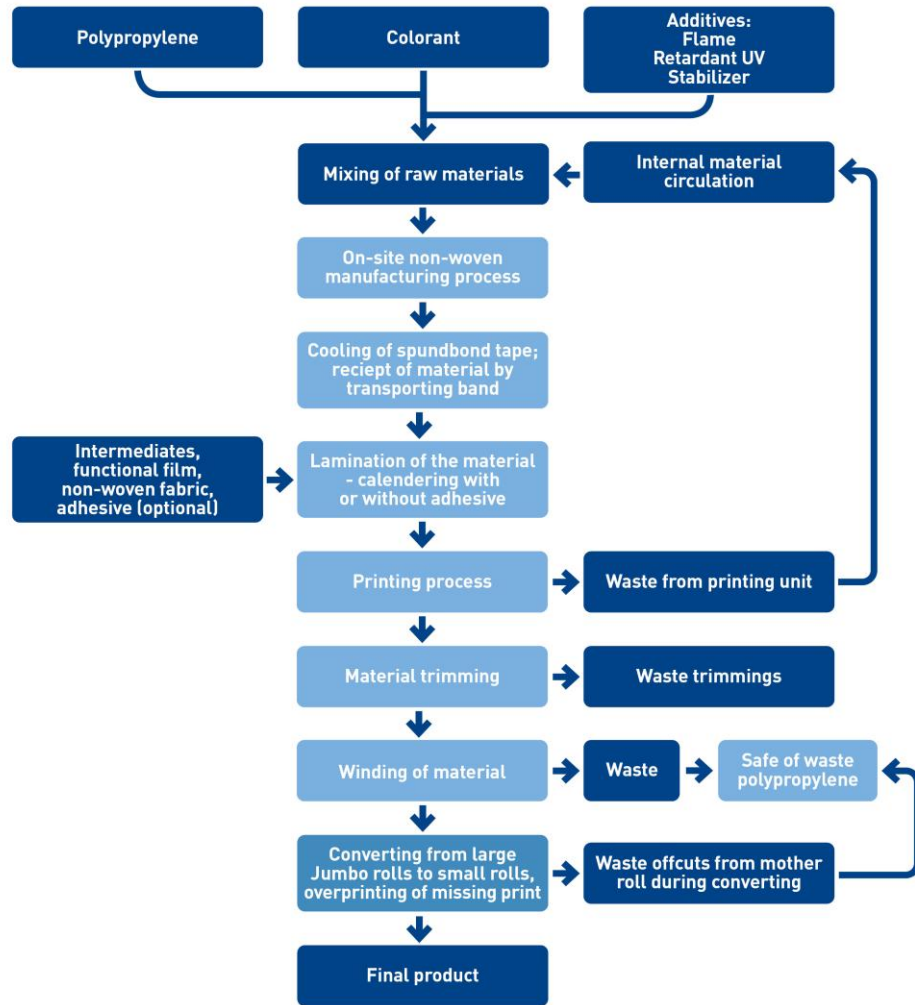
This EPD does not cover the use phase.

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

PRODUCT END OF LIFE (C1-C4, D)

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. According to the scenario treatment outlined by Plastic Europe in 2022, 23% of waste is recycled, 50% is incinerated, and 27% is sent to disposal. The transportation distance to the nearest waste treatment facility is included in this study, and the transportation method is lorry. All waste disposal processes were included in this module. Benefits from recycling and incineration (electricity and thermal energy) are declared within module D.

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.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

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/AC:2021 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 |

PRODUCT & MANUFACTURING SITES GROUPING

| | |
|--------------------------------------|----------------|
| Type of grouping | No grouping |
| Grouping method | Not applicable |
| Variation in GWP-fossil for A1-A3, % | - |

This EPD is product and factory specific.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

EUROSTAT,

https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_8519242/default/table?lang=en

EUROSTAT,

https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_8519259/default/table?lang=en

EUROSTAT,

https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_8519174/default/table?lang=en

Debunking Efficient Recovery: The Performance of EU Incineration Facilities, 2023 <https://zerowasteurope.eu/wp-content/uploads/2023/01/Debunking-Efficient-Recovery-Full-Report-EN.docx.pdf>

Plastic Europe 2020

<https://worldsteel.org/wp-content/uploads/Life-cycle-inventory-LCI-study-2020-data-release.pdf>

ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

| Impact category | Unit | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|-------------------------------------|-------------------------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|-----------|-----------|-----------|
| GWP – total ¹⁾ | kg CO ₂ e | 2,95E-01 | 1,69E-02 | 2,78E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,08E-03 | 1,35E-01 | 3,23E-03 | -9,50E-02 |
| GWP – fossil | kg CO ₂ e | 2,92E-01 | 1,69E-02 | 2,76E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,08E-03 | 1,35E-01 | 3,23E-03 | -9,63E-02 |
| GWP – biogenic | kg CO ₂ e | 1,38E-03 | 1,09E-05 | 6,25E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,45E-07 | -2,47E-06 | -1,70E-06 | 1,38E-03 |
| GWP – LULUC | kg CO ₂ e | 1,05E-03 | 5,70E-06 | 6,08E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,84E-07 | 2,49E-06 | 1,97E-07 | -8,87E-05 |
| Ozone depletion pot. | kg CFC ₋₁₁ e | 4,05E-09 | 3,68E-10 | 3,21E-10 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,60E-11 | 2,83E-11 | 7,81E-12 | -3,10E-09 |
| Acidification potential | mol H ⁺ e | 1,38E-03 | 3,62E-05 | 1,03E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 3,69E-06 | 2,28E-05 | 2,15E-06 | -4,37E-04 |
| EP-freshwater ²⁾ | kg Pe | 1,15E-04 | 1,17E-06 | 8,51E-06 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 8,42E-08 | 5,72E-07 | 3,18E-08 | -3,82E-05 |
| EP-marine | kg Ne | 2,54E-04 | 8,73E-06 | 3,44E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,21E-06 | 1,20E-05 | 7,15E-06 | -6,81E-05 |
| EP-terrestrial | mol Ne | 2,51E-03 | 9,42E-05 | 2,09E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,32E-05 | 1,05E-04 | 8,77E-06 | -6,92E-04 |
| POCP (“smog”) ³⁾ | kg NMVOCe | 1,02E-03 | 5,75E-05 | 8,16E-05 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 5,44E-06 | 2,70E-05 | 3,81E-06 | -4,19E-04 |
| ADP-minerals & metals ⁴⁾ | kg Sbe | 1,15E-06 | 5,92E-08 | 1,25E-07 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 3,02E-09 | 1,76E-08 | 6,81E-10 | -5,13E-07 |
| ADP-fossil resources | MJ | 7,48E+00 | 2,40E-01 | 4,78E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,57E-02 | 2,46E-02 | 6,72E-03 | -2,51E+00 |
| Water use ⁵⁾ | m ³ e depr. | 1,10E-01 | 1,27E-03 | 8,39E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 7,75E-05 | 3,90E-03 | 3,29E-05 | -2,64E-02 |

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, EF 3.1

| Impact category | Unit | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|----------------------------------|-----------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| Particulate matter | Incidence | 1,15E-08 | 1,27E-09 | 1,03E-09 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,08E-10 | 1,85E-10 | 4,86E-11 | -2,81E-09 |
| Ionizing radiation ⁶⁾ | kBq U235e | 1,39E-02 | 2,90E-04 | 1,86E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,37E-05 | 1,15E-04 | 6,67E-06 | -1,96E-02 |
| Ecotoxicity (freshwater) | CTUe | 8,45E-01 | 2,04E-01 | 2,50E-01 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,22E-03 | 3,75E-02 | 1,00E-02 | -1,80E-01 |
| Human toxicity, cancer | CTUh | 1,15E-10 | 2,84E-12 | 1,32E-11 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,79E-13 | 5,65E-12 | 1,58E-13 | -1,57E-11 |
| Human tox. non-cancer | CTUh | 2,53E-09 | 1,51E-10 | 1,05E-09 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,02E-11 | 2,17E-10 | 3,11E-11 | -7,75E-10 |
| SQP ⁷⁾ | - | 7,60E-01 | 1,44E-01 | 9,72E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,58E-02 | 2,55E-02 | 1,57E-02 | -4,08E-01 |

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-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|------------------------------------|----------------|----------|----------|-----------|----|----|----|----|----|----|----|----------|----------|-----------|-----------|-----------|
| Renew. PER as energy ⁸⁾ | MJ | 2,13E-01 | 3,96E-03 | -1,05E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,15E-04 | 1,87E-03 | 1,05E-04 | -1,99E-01 |
| Renew. PER as material | MJ | 3,01E-03 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | -3,01E-03 | 0,00E+00 | 1,31E-03 |
| Total use of renew. PER | MJ | 2,16E-01 | 3,96E-03 | -1,05E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,15E-04 | -1,14E-03 | 1,05E-04 | -1,97E-01 |
| Non-re. PER as energy | MJ | 4,73E+00 | 2,40E-01 | -6,97E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,57E-02 | -2,89E+00 | -1,05E+00 | -2,73E+00 |
| Non-re. PER as material | MJ | 2,74E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | -2,74E+00 | 0,00E+00 | 1,01E+00 |
| Total use of non-re. PER | MJ | 7,47E+00 | 2,40E-01 | -6,97E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,57E-02 | -5,63E+00 | -1,05E+00 | -1,72E+00 |
| Secondary materials | kg | 5,84E-05 | 1,09E-04 | 1,62E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 6,69E-06 | 9,86E-05 | 2,43E-06 | 2,52E-02 |
| Renew. secondary fuels | MJ | 7,37E-07 | 1,43E-06 | 1,14E-06 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 8,49E-08 | 7,17E-07 | 4,55E-08 | -2,48E-06 |
| Non-ren. secondary fuels | MJ | 0,00E+00 | 0,00E+00 | 0,00E+00 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Use of net fresh water | m ³ | 3,52E-03 | 2,94E-05 | 1,92E-04 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,32E-06 | 3,21E-05 | -9,98E-05 | -9,09E-04 |

8) PER = Primary energy resources.

END OF LIFE – WASTE

| Impact category | Unit | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|---------------------|------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| Hazardous waste | kg | 5,65E-04 | 3,48E-04 | 1,31E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 2,66E-05 | 1,32E-03 | 1,18E-05 | -4,98E-03 |
| Non-hazardous waste | kg | 3,47E-02 | 7,47E-03 | 9,73E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 4,92E-04 | 6,01E-02 | 1,34E-01 | -5,98E-01 |
| Radioactive waste | kg | 3,48E-06 | 7,15E-08 | 4,73E-07 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 3,35E-09 | 2,93E-08 | 1,63E-09 | -5,01E-06 |

END OF LIFE – OUTPUT FLOWS

| Impact category | Unit | 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 | ND | ND | ND | ND | ND | ND | ND | 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 | 5,79E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 2,32E-02 | 0,00E+00 | 0,00E+00 |
| Materials for energy rec | kg | 0,00E+00 | 0,00E+00 | 5,33E-03 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| Exported energy | MJ | 0,00E+00 | 0,00E+00 | 6,02E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 6,20E-01 | 0,00E+00 | 0,00E+00 |
| Exported energy – Electricity | MJ | 0,00E+00 | 0,00E+00 | 2,50E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 2,60E-01 | 0,00E+00 | 0,00E+00 |
| Exported energy – Heat | MJ | 0,00E+00 | 0,00E+00 | 3,52E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 0,00E+00 | 3,60E-01 | 0,00E+00 | 0,00E+00 |

ADDITIONAL INDICATOR – GWP-GHG

| Impact category | Unit | A1-A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
|-----------------------|----------------------|----------|----------|----------|----|----|----|----|----|----|----|----------|----------|----------|----------|-----------|
| GWP-GHG ⁹⁾ | kg CO ₂ e | 2,93E-01 | 1,69E-02 | 2,77E-02 | ND | ND | ND | ND | ND | ND | ND | 0,00E+00 | 1,08E-03 | 1,35E-01 | 3,23E-03 | -9,63E-02 |

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH₄ fossil, CH₄ biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO₂ is set to zero.

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

| Scenario parameter | Value |
|--|-------|
| Electricity data source and quality | - |
| Electricity CO2e / kWh | - |
| District heating data source and quality | - |
| District heating CO2e / kWh | - |

Transport scenario documentation - A4

| Scenario parameter | Value |
|---|---|
| Fuel and vehicle type. Eg, electric truck, diesel powered truck | Transport, freight, lorry 16-32 metric ton, EURO6 |
| Average transport distance, km | 529 |
| Capacity utilization (including empty return) % | 100 |
| Bulk density of transported products | - |
| Volume capacity utilization factor | <1 |

Installation scenario documentation - A5

| Scenario information | Value |
|--|---|
| Ancillary materials for installation (specified by material) / kg or other units as appropriate | Steel production, converter, low-alloyed, Ecoinvent, 0.056 kg |
| Water use / m ³ | - |
| Other resource use / kg | - |
| Quantitative description of energy type (regional mix) and consumption during the installation process / kWh or MJ | - |
| Waste materials on the building site before waste processing, generated by the product's installation (specified by type) / kg | PE: 0.00223 kg PP:0,00855 Wood: 0.0166 kg Cardboard: 0.0089 kg Steel: 0,000158 |
| Output materials (specified by type) as result of waste processing at the building site e.g. collection for recycling, for energy recovery, disposal (specified by route) / kg | PE: 40%, 37%, 23% PP: 100%, 0%, 0% Wood: 32%, 30%, 38% Cardboard: 83%, 8%, 9% Steel: 100%, 0%, 0% |
| Direct emissions to ambient air, soil and water / kg | - |

End-of-life scenario documentation - C1-C4

| Scenario information | Value |
|---|--|
| Collection process – kg collected separately | 0,1003 kg |
| Collection process – kg collected with mixed construction waste | - |
| Recovery process – kg for re-use | - |
| Recovery process – kg for recycling | 0,1003 kg |
| Recovery process – kg for energy recovery | - |
| Disposal (total) – kg for final deposition | 0.027 |
| Scenario assumptions e.g. transportation | 100 km transport by truck to local recycling station |

THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

[Verified tools](#)

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Sarah Curpen as an authorized verifier for EPD Hub Limited 16.04.2026

