



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Insulated wall
Naijbetong AB



EPD HUB, HUB-1380

Published on 06.02.2026, last updated on 06.02.2026, valid until 05.02.2031

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



GENERAL INFORMATION

MANUFACTURER

Manufacturer	Naijbetong AB
Address	Skeppshult, Sweden
Contact details	info@naijbetong.se
Website	naijbetong.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 EN 16757 Product Category Rules for concrete and concrete elements
Sector	Construction product
Category of EPD	Sister EPD
Parent EPD number	HUB-1217
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Svante Karlsson
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	Yazan Badour 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	Insulated wall
Additional labels	-
Product reference	-
Place(s) of raw material origin	Europe
Place of production	Boarpsvägen 2, 333 93 Skeppshult, Sweden
Place(s) of installation and use	Sweden
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 (%)	75,2

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 metric ton of concrete element
Declared unit mass	1000 kg
Mass of packaging	kg
GWP-fossil, A1-A3 (kgCO ₂ e)	141
GWP-total, A1-A3 (kgCO ₂ e)	143
Secondary material, inputs (%)	3,75
Secondary material, outputs (%)	77,3
Total energy use, A1-A3 (kWh)	439
Net freshwater use, A1-A3 (m ³)	2,47

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

NaijBetong is the company that grew out of the need for concrete elements in the own construction company NaijBygg. Soon we were also producing for others and since 2014 we have been growing steadily. Today, we are 25 people at the concrete factory in Skeppshult who work together to produce prefabricated concrete elements for industrial halls, switchgear and residential buildings. Furthermore, we produce plinths that become frames for industrial buildings, joists and balconies. Our customers range from private individuals to small and large construction companies. Most are in an area from Helsingborg in the south to Uppsala in the north. Since we started our career by supplying concrete to our own construction company, we have tested ourselves and through the course of the journey we have gained a lot of experience in the field. NaijBetong are innovative problem solvers who understand the importance of accuracy.

PRODUCT DESCRIPTION

The product is a Precast insulated wall of concrete consisting of aggregates, cement, additives, water, EPS insulation and reinforcement Steel. The strength class of the product is 40 MPa at 28 days.

Technical specifications:

- Reinforced concrete mass: 2504 kg/m³
- Concrete strength C32/40
- Exposure classes up to XC4+XF3
- Life length class up to L50 (50years).
- Typical thickness: 250mm
- Standard SS-EN14992, SS-EN13369, SS137005, SS137003

Further information can be found at:
naijbetong.se

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	2,8	Europe
Minerals	92,7	Europe
Fossil materials	4,5	Europe
Bio-based materials	0	-

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

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 metric ton of concrete element
Mass per declared unit	1000 kg
Functional unit	-
Reference service life	50 Year

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.

A market-based approach is used in modelling the electricity mix utilized in the factory.

The production of Sockel with insulation starts by manufacturing parts for the custom-made moulds. At the same time, the reinforcement is prepared by bending and cutting meshes and bars into the designed dimensions. The casting table is cleaned before the moulds are assembled. Reinforcement and cast-in-materials are mounted, form oil applied and the elements casted. As the concrete sets and reaches the right consistency, the surface treatment is applied (generally fine rolling). After curing the concrete reaches the designed demoulding strength and the elements can be lifted to an intermediate storage area for quality control and finishing, before they are finally transported out into the storage yard ready for delivery to the construction site. Transport assumption considered from raw material supplier to manufacturing site, and euro 6 truck vehicles is used. Production losses considered for concrete production is 0,5%. Energy sources profile is a mix of renewable energy that supplies the manufacturing site (Wind, Hydro, Biogas and Photovoltaic). No packaging in the product. But ancillary materials considered. Also manufacturing waste and respective end-of-waste scenarios for the outputs were considered and based on primary data. Finally, the transportation assumptions and distances for A3 waste-processing facilities were based on primary data, and the distances, modal and type of vehicle representative for each case.

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.

By confirming the installation plan, the transports will be planned so that all transports are as optimal as possible. Average distance between construction site and production hall is assumed to be 70 km. The mode of transport is assumed to be lorry. Transports do not cause losses. The installation energy consumption has been considered in the A5. Amount of energy spent by the building machines used in construction is assumed to be 132.5 MJ/m³ (Abey and Anand, 2019). Therefore, energy consumption is $132,5/2,4=55,2$ MJ/ton product. (Concrete density 2,4 ton/m³). No waste has been assumed during the installation.

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

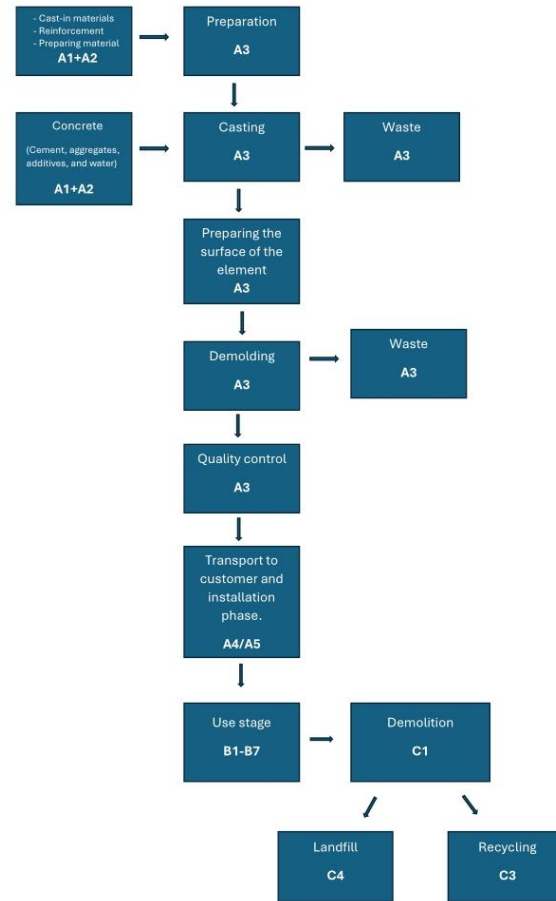
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

At the end-of-life, in the demolition phase 100% of the waste is assumed to be collected as separate construction waste. The demolition process consumes energy in the form of diesel fuel used by building machines. Energy consumption of a demolition process is on the average 10 kWh/m² (Bozdağ, Ö & Seçer, M. 2007). Basing on a Level(s) project, an average mass of a reinforced concrete wall is about 1000 kg/m². Therefore, energy consumption demolition is assumed to be 10 kWh/1000 kg = 0,01 kWh/kg. The source of energy is diesel fuel used by work machines (C1). The demolished concrete pieces are delivered to the nearest construction waste treatment plant. It is estimated that there is no mass loss during the use of the product, therefore the end-of-life product is assumed that it has the same weight with the declared product. Transportation distance to the closest disposal area is estimated as 50 km and the transportation method is lorry which is the most common (C2). At the waste treatment plant, waste that can

be reused, recycled or recovered for energy is separated and diverted for further use. It can be assumed that 100% of the insulated wall are transported to a waste treatment plant, where the concrete is crushed and separated. About 80% of concrete (Betoniteollisuus ry, 2020) is recycled and 95% of the steel. The process losses of the waste treatment plant are assumed to be negligible (C3). The remaining 20% of the concrete and 5% of steel is assumed to be sent to the landfill together with 100% of the EPS (polystyrene) (C4). Due to the recycling potential of concrete, it can be used as secondary raw material, which avoids the use of virgin raw materials. The 80 % of concrete going to waste processing is converted into secondary raw materials after recycling.

SYSTEM DIAGRAM



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 that is 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.

“This LCA study includes the provision of all materials, transportation, energy and emission flows, and end of life processing of the product. All industrial processes from raw materials acquisition and pre-processing, production, and end-of-life management are included. Due to lack of data, some materials are excluded but they do not exceed the 1% cut- off criteria. These include materials which are used in the product only in very small amounts and have a negligible impact on the emissions of the product. 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 made according to the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	Partly allocated by mass or volume
Packaging material	Not applicable
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

“All estimations and assumptions are given below.▪ Modules A2, A4 & C2: Vehicle capacity utilization and empty returns are considered in the ecoinvent background data. It may vary but as the role of transportation emission in total results is small and so the variety is assumed to be negligible.▪ Module C1: Consumed energy for demolition process is assumed as 0.01 kWh/kg.▪ Module C2: Transportation distance to the closest disposal area is estimated as 15 km and the transportation method is assumed as lorry which is the most common.▪ Modules C3, C4, D: 80% of concrete and 95% of steel is sent for recycling while the remaining materials is assumed to be landfilled. The recycled materials displace the need for virgin material production in module D.

PRODUCT & MANUFACTURING SITES GROUPING

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

“There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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’.

Bozdağ, Ö & Seçer, M. 2007 Abey and Anand, 2019

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	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	1,31E+02	3,51E+00	8,51E+00	1,43E+02	7,26E+00	5,53E+00	ND	ND	ND	ND	ND	ND	ND	3,61E+00	5,04E+00	4,74E+00	5,21E+00	-7,74E+00
GWP – fossil	kg CO ₂ e	1,30E+02	3,50E+00	8,01E+00	1,41E+02	7,26E+00	5,53E+00	ND	ND	ND	ND	ND	ND	ND	3,60E+00	5,04E+00	4,74E+00	5,20E+00	-7,74E+00
GWP – biogenic	kg CO ₂ e	1,45E+00	7,73E-04	3,91E-09	1,45E+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
GWP – LULUC	kg CO ₂ e	4,15E-02	1,58E-03	4,97E-01	5,40E-01	3,39E-03	5,66E-04	ND	ND	ND	ND	ND	ND	ND	3,69E-04	2,35E-03	4,85E-04	9,15E-03	-7,00E-03
Ozone depletion pot.	kg CFC-11e	7,47E-07	5,29E-08	4,24E-07	1,22E-06	1,17E-07	8,46E-08	ND	ND	ND	ND	ND	ND	ND	5,52E-08	8,11E-08	7,26E-08	9,16E-08	-6,03E-08
Acidification potential	mol H ⁺ e	2,99E-01	1,12E-02	6,45E-02	3,75E-01	1,85E-02	4,99E-02	ND	ND	ND	ND	ND	ND	ND	3,25E-02	1,28E-02	4,28E-02	2,99E-02	-4,73E-02
EP-freshwater ²⁾	kg Pe	4,72E-03	2,75E-04	8,89E-04	5,88E-03	5,83E-04	1,60E-04	ND	ND	ND	ND	ND	ND	ND	1,04E-04	4,04E-04	1,37E-04	3,24E-04	-2,36E-03
EP-marine	kg Ne	8,18E-02	3,53E-03	2,19E-02	1,07E-01	4,69E-03	2,31E-02	ND	ND	ND	ND	ND	ND	ND	1,51E-02	3,25E-03	1,98E-02	1,53E-02	-1,12E-02
EP-terrestrial	mol Ne	1,02E+00	3,84E-02	2,40E-01	1,30E+00	5,08E-02	2,53E-01	ND	ND	ND	ND	ND	ND	ND	1,65E-01	3,52E-02	2,17E-01	1,33E-01	-1,36E-01
POCP (“smog”) ³⁾	kg NMVOCe	2,73E-01	1,66E-02	7,29E-02	3,62E-01	2,80E-02	7,56E-02	ND	ND	ND	ND	ND	ND	ND	4,93E-02	1,94E-02	6,48E-02	4,41E-02	-3,75E-02
ADP-minerals & metals ⁴⁾	kg Sbe	4,41E-04	9,86E-06	7,76E-05	5,29E-04	2,10E-05	1,98E-06	ND	ND	ND	ND	ND	ND	ND	1,29E-06	1,46E-05	1,70E-06	9,73E-06	-4,14E-05
ADP-fossil resources	MJ	1,21E+03	5,13E+01	1,15E+02	1,38E+03	1,09E+02	7,23E+01	ND	ND	ND	ND	ND	ND	ND	4,72E+01	7,58E+01	6,20E+01	7,83E+01	-9,28E+01
Water use ⁵⁾	m ³ e depr.	3,08E+01	2,53E-01	2,02E+01	5,13E+01	5,39E-01	1,81E-01	ND	ND	ND	ND	ND	ND	ND	1,18E-01	3,74E-01	1,55E-01	2,91E-01	-1,16E+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, EF 3.1

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	2,09E-06	3,49E-07	1,60E-06	4,04E-06	7,13E-07	1,42E-06	ND	ND	ND	ND	ND	ND	ND	9,25E-07	4,95E-07	6,97E-06	2,17E-06	-7,18E-07
Ionizing radiation ⁶⁾	kBq 11235e	1,43E+01	4,47E-02	3,48E-01	1,47E+01	9,50E-02	3,20E-02	ND	ND	ND	ND	ND	ND	ND	2,09E-02	6,59E-02	2,75E-02	5,46E-02	-6,53E-01
Ecotoxicity (freshwater)	CTUe	2,22E+02	7,25E+00	1,72E+02	4,02E+02	1,54E+01	3,98E+00	ND	ND	ND	ND	ND	ND	ND	2,60E+00	1,07E+01	3,41E+00	1,74E+01	-2,22E+01
Human toxicity, cancer	CTUh	3,05E-08	5,80E-10	2,31E-08	5,41E-08	1,21E-09	5,68E-10	ND	ND	ND	ND	ND	ND	ND	3,71E-10	8,41E-10	4,87E-10	9,29E-10	-2,07E-09
Human tox. non-cancer	CTUh	3,00E-07	3,32E-08	1,36E-07	4,69E-07	7,04E-08	9,00E-09	ND	ND	ND	ND	ND	ND	ND	5,87E-09	4,88E-08	7,71E-09	3,46E-08	-6,04E-08
SQP ⁷⁾	-	1,86E+02	5,17E+01	8,82E+02	1,12E+03	1,10E+02	5,07E+00	ND	ND	ND	ND	ND	ND	ND	3,30E+00	7,63E+01	4,34E+00	8,74E+01	-8,70E+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	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy ⁸⁾	MJ	1,70E+02	7,03E-01	4,59E+01	2,17E+02	1,50E+00	4,58E-01	ND	ND	ND	ND	ND	ND	ND	2,99E-01	1,04E+00	3,93E-01	8,82E-01	-8,45E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	0,00E+00	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
Total use of renew. PER	MJ	1,70E+02	7,03E-01	4,59E+01	2,17E+02	1,50E+00	4,58E-01	ND	ND	ND	ND	ND	ND	ND	2,99E-01	1,04E+00	3,93E-01	8,82E-01	-8,45E+00
Non-re. PER as energy	MJ	8,16E+02	5,13E+01	1,00E+02	9,68E+02	1,09E+02	7,23E+01	ND	ND	ND	ND	ND	ND	ND	4,72E+01	7,58E+01	6,20E+01	-9,95E+01	-9,28E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	0,00E+00	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
Total use of non-re. PER	MJ	8,16E+02	5,13E+01	1,00E+02	9,68E+02	1,09E+02	7,23E+01	ND	ND	ND	ND	ND	ND	ND	4,72E+01	7,58E+01	6,20E+01	-9,95E+01	-9,28E+01
Secondary materials	kg	3,75E+01	2,18E-02	5,39E-02	3,76E+01	4,64E-02	3,00E-02	ND	ND	ND	ND	ND	ND	ND	1,96E-02	3,22E-02	2,57E-02	2,88E-02	-1,04E-01
Renew. secondary fuels	MJ	7,12E+01	2,77E-04	8,69E-04	7,12E+01	5,91E-04	7,85E-05	ND	ND	ND	ND	ND	ND	ND	5,12E-05	4,10E-04	6,73E-05	3,61E-04	-7,14E-04
Non-ren. secondary fuels	MJ	3,26E+02	0,00E+00	0,00E+00	3,26E+02	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	2,00E+00	7,62E-03	4,58E-01	2,47E+00	1,64E-02	4,78E-03	ND	ND	ND	ND	ND	ND	ND	3,12E-03	1,14E-02	4,10E-03	1,97E-02	-2,75E-01

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	2,20E+00	8,68E-02	4,94E-01	2,78E+00	1,84E-01	8,05E-02	ND	ND	ND	ND	ND	ND	ND	5,25E-02	1,28E-01	6,90E-02	1,11E-01	-7,25E-01
Non-hazardous waste	kg	4,04E+01	1,61E+00	2,34E+01	6,53E+01	3,41E+00	1,10E+00	ND	ND	ND	ND	ND	ND	ND	7,15E-01	2,36E+00	9,40E-01	2,49E+01	-1,29E+01
Radioactive waste	kg	9,39E-03	1,09E-05	1,59E-04	9,56E-03	2,32E-05	7,86E-06	ND	ND	ND	ND	ND	ND	ND	5,12E-06	1,61E-05	6,74E-06	1,33E-05	-1,57E-04

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	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	5,69E+00	0,00E+00	7,71E+00	1,34E+01	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	7,73E+02	0,00E+00	0,00E+00
Materials for energy rec	kg	5,37E-02	0,00E+00	7,09E+00	7,14E+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
Exported energy	MJ	2,32E-04	0,00E+00	5,31E+01	5,31E+01	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
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	8,01E+00	8,01E+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
Exported energy – Heat	MJ	0,00E+00	0,00E+00	4,51E+01	4,51E+01	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

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG ⁹⁾	kg CO ₂ e	1,30E+02	3,51E+00	8,51E+00	1,42E+02	7,26E+00	5,53E+00	ND	ND	ND	ND	ND	ND	ND	3,61E+00	5,04E+00	4,74E+00	5,21E+00	-7,74E+00

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

1. Diesel, burned in building machine, World, Ecoinvent, 0.10 kgCO₂e/MJ
2. Electricity production, wind, >3MW turbine, onshore, Sweden, Ecoinvent, 0.0285 kgCO₂e/kWh
3. Heat and power co-generation, biogas, gas engine, Sweden, Ecoinvent, 0.15 kgCO₂e/kWh
4. Electricity production, hydro, reservoir, non-alpine region, Sweden, Ecoinvent, 0.0506 kgCO₂e/kWh
5. Electricity production, photovoltaic, 570kWp open ground installation, multi-Si, Sweden, Ecoinvent, 0.0829 kgCO₂e/kWh

Renewable energy mix supplied by Eneas Services AB

- Wind 38,4%
- Bio 50,6%
- Hydro 1,3%
- Photovoltaic 9,7%

Transformation and transmission loss is 2,55%

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO6, 70 km

Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	80%
Bulk density of transported products	-
Volume capacity utilization factor	-

Installation scenario documentation - A5 (Installation resources)

1. Diesel, burned in building machine, Ecoinvent, 55.2 MJ

End-of-life scenario documentation - C1-C4 (Data source)

1. Treatment of waste reinforced concrete, collection for final disposal, Ecoinvent, 193.29 kg
2. Treatment of waste reinforced concrete, recycling, Ecoinvent, Materials for recycling, 773.19 kg
3. Treatment of scrap steel, inert material landfill, Ecoinvent, 0.0 kg
4. Treatment of waste reinforcement steel, recycling, Ecoinvent, Materials for recycling, 0.0 kg
5. Diesel, burned in building machine, Ecoinvent, 10.0 kWh
6. Treatment of waste polystyrene, sanitary landfill, Ecoinvent, 4.59 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Transportation to waste processing assumes an average distance of 50 km by >32 t lorry (Euro 5)

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

Yazan Badour as an authorized verifier for EPD Hub Limited 06.02.2026

