



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

GARO Cable Cabinet
GARO Aktiebolag



EPD HUB, HUB-7556

Published on 17.09.2026, last updated on 17.09.2026, valid until 16.09.2031

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	GARO Aktiebolag
Address	Södergatan 26,33533, Gnosjö, SE
Contact details	info@garo.se
Website	https://www.garogroup.se/sv

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	Andreas Olsson GARO AB
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Elena Antuña-Bernardo as an authorized verifier for EPD Hub

This EPD is intended for business-to-business 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	GARO Cable Cabinet
Additional labels	GARO Cable cabinet K2 400A, GARO Cable cabinet K3 400A, GARO Cable cabinet K4 400A
Product reference	GKSD-K2424, GKSD-K3444, GKSD-K4460
Place(s) of raw material origin	Sweden
Place of production	Sweden, Gnosjö
Place(s) of installation and use	Sweden
Period for data	Calendar year June 2025 to June 2026
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	-23,4% / +22,2%
GTIN (Global Trade Item Number)	7331185276762, 7331185276779, 7331185276786
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	98,2

ENVIRONMENTAL DATA SUMMARY

Declared unit	One GARO Cable Cabinet
Declared unit mass	55,3 kg
Mass of packaging	0 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	173
GWP-total, A1-A3 (kgCO ₂ e)	159
Secondary material, inputs (%)	8,64
Total energy use, A1-A3 (kWh)	520
Net freshwater use, A1-A3 (m ³)	1,26

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

GARO is a manufacturer of products and solutions for the electrical installation industry. The company's product portfolio includes Installation, E-mobility, Projects, and Temporary Power. Manufacturing and business operations are located in Sweden, Norway, Finland, Ireland, Poland, the United Kingdom and Germany.

PRODUCT DESCRIPTION

Product description, product application and technical characteristics
The product covered by this EPD is a low-voltage cable distribution cabinet intended for outdoor installation in public infrastructure and utility networks. It is designed for the safe and reliable distribution of electrical power in low-voltage distribution systems and is suitable for applications such as residential developments, urban environments, industrial areas, transport infrastructure, and other public utility installations.

The cabinet is manufactured from steel with a Magnelis® metallic coating, providing high corrosion resistance corresponding to corrosion class C5. The construction is designed for long service life and reliable operation under demanding environmental conditions, including Nordic climates.

The product portfolio comprises several cabinet sizes (K2, K3 and K4) with rated currents up to 400 A. The cabinets are designed according to DIN-based installation principles and feature a spacious internal layout that facilitates installation, operation, maintenance, and future network modifications. They can be equipped with fuse switch disconnectors, earthing devices, terminal blocks, and conversion kits for TN-S and TN-C-S systems.

Technical characteristics

Product type: Low-voltage cable distribution cabinet

Application: Outdoor electrical power distribution

Rated current: Up to 400 A

Material: Steel with Magnelis® corrosion-protective coating

Corrosion resistance: C5 classification

Installation environment: Public infrastructure and utility networks

Available cabinet sizes: K2, K3 and K4

System compatibility: TN-C, TN-S and TN-C-S distribution systems

Design features: Spacious internal layout for simplified installation, operation, and future expansion

Expected service life: Designed for long-term operation in demanding outdoor environments

The product is delivered as a complete enclosure solution for low-voltage power distribution and can be supplemented with compatible electrical accessories and connection components depending on project requirements.

Further information can be found at:

<https://www.garogroup.se/sv>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	eu
Minerals		
Fossil materials	0	
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	3,52

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	One GARO Cable Cabinet
Mass per declared unit	55,3 kg
Functional unit	
Reference service life	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	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.

A1–A3 Product stage and manufacturing

The product is manufactured in Gnosjö, Sweden, by assembling pre-fabricated and purchased components supplied by external suppliers. The components are delivered to the manufacturing facility and assembled into the finished product.

The main supplier locations considered for the incoming transport of purchased components are Gnosjö, Vetlanda and Gothenburg, Sweden. Transport from the suppliers to the manufacturing facility in Gnosjö is included in the A2 module. The transport distances are based on the assumed/representative routes from the relevant supplier locations to the manufacturing site. Where exact supplier-specific transport distances are not available, representative distances from the respective locations are applied.

No material processing or transformation of raw materials is performed at the Gnosjö manufacturing site. In particular, the manufacturing site does not perform cutting, welding, machining, painting, coating, surface treatment or other material-processing operations. The production process is limited to assembly of purchased and pre-fabricated components, together with functional testing of the completed product.

The assembly process primarily consists of mechanical and electrical assembly operations, including positioning, fastening and connection of the purchased components, followed by functional testing to verify the performance of the finished product.

A3 Manufacturing energy

The manufacturing process requires electricity for assembly tools, functional testing equipment, lighting and other supporting production activities. Electricity consumption associated with the manufacturing process is included in A3.

For the LCA calculation, the electricity supply is modelled using the Swedish medium-voltage electricity residual mix. This electricity dataset is used to

represent the electricity supplied to the manufacturing facility and associated production activities.

Heating energy for the production facility is also included in A3. Heating represents a general building energy flow rather than energy directly consumed by the product. The relevant share is therefore allocated to the product based on the production-area allocation methodology described separately in the LCA documentation.

A3 Packaging and ancillary materials

The finished product is packaged for transport from the manufacturing facility using one wooden pallet.

No additional product-specific packaging materials, such as cardboard boxes, plastic film, foam, plastic bags or other protective packaging, are used for the product. The wooden pallet is therefore the only packaging material included in the A3 packaging inventory.

The mass of the wooden pallet is included in the LCA software as packaging material. The pallet is modelled according to its material composition and assumed/relevant end-of-life treatment in accordance with the applicable LCA/EPD modelling requirements.

A3 Manufacturing waste

No significant manufacturing waste or production losses are generated at the Gnosjö facility.

This is because the manufacturing process consists solely of assembly of pre-fabricated and purchased components. No cutting, machining, welding, painting or other material-processing activities are carried out at the site that would generate process scrap.

Consequently, no production material losses or manufacturing scrap are assumed for the A3 module, and no percentage allocation to recycling, incineration or landfill treatment is applied to manufacturing waste.

Minor incidental waste associated with normal facility operations is not considered a product-specific manufacturing loss and is therefore not allocated to the product where it cannot reasonably be attributed to the product manufacturing process.

A3 Waste transport

As no significant product-specific manufacturing waste is generated during the assembly process, no transport of manufacturing waste is included in A3.

There is therefore no assumed transport distance or waste-treatment transport flow associated with production losses from the manufacture of the product.

The use of green energy (both electricity and heat) in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

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 transportation distance from the production site to the building site is assumed to be 300 km. This assumption is based on the factory's location in southern Sweden (Gnosjö) and the typical distribution range of customers along the west, south, and east coasts. Transportation is assumed to be by lorry.

A vehicle capacity utilization factor of 100% (volume basis) is assumed. Although actual load factors may vary in practice, transport emissions represent a minor share of the total environmental impacts, and variations in vehicle loading are therefore considered to have a negligible influence on the results. To remain conservative, empty return trips are accounted for through the default average load factors embedded in the ecoinvent transport datasets.

No product losses are assumed to occur during transportation, as the product is securely packaged and designed for safe handling.

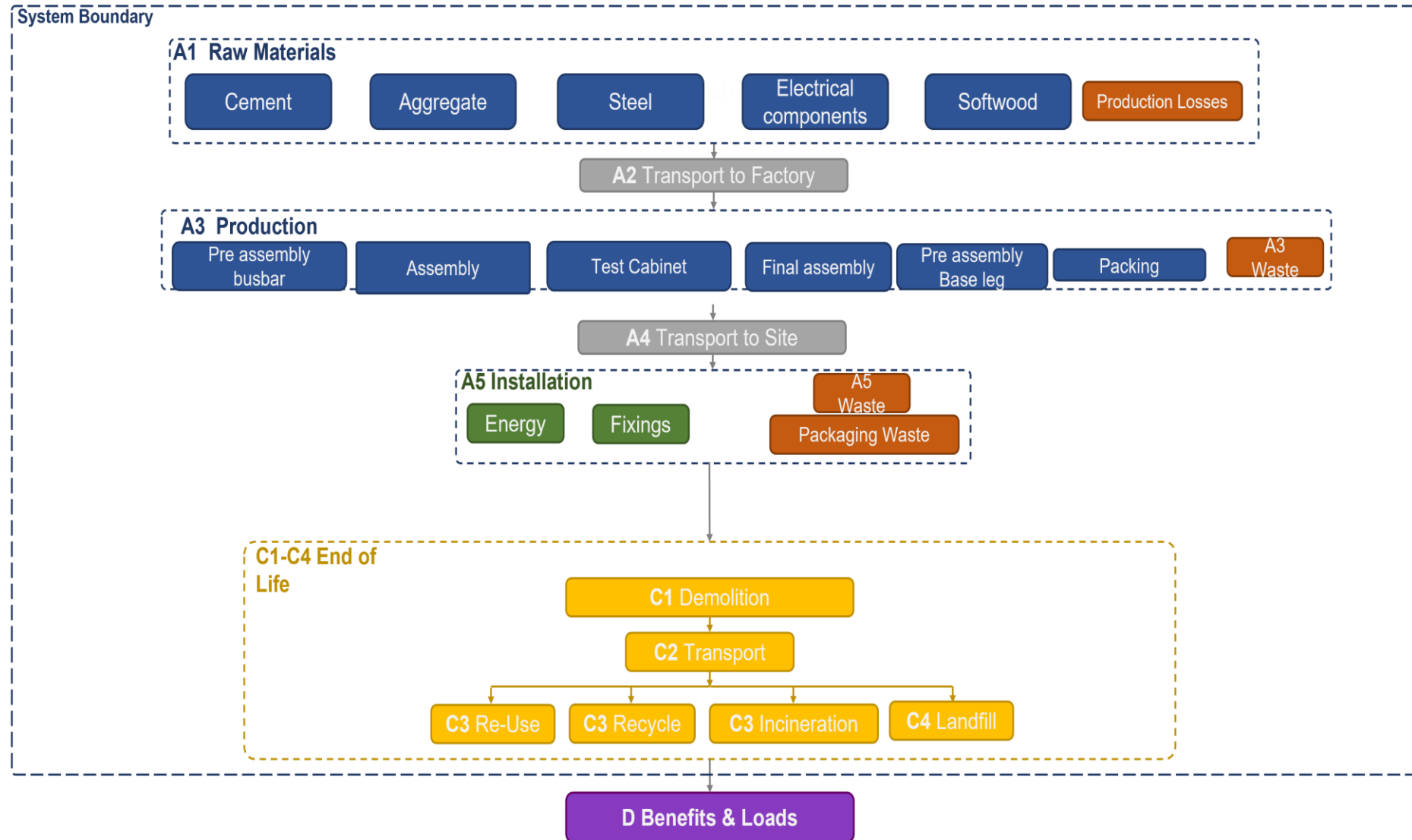
Installation is limited to on-site assembly and requires approximately 0.53 litres of diesel per product, primarily for handling and installation activities.

End-of-life treatment of the wooden packaging is included in the assessment. Biogenic carbon flows associated with the wooden packaging, including both carbon uptake and the release of CO₂, are accounted for in accordance with the applied EPD methodology.

PRODUCT END OF LIFE (C1-C4, D)

It is assumed that negligible energy is required to dismantle the product (C1), as dismantling is performed manually. It is assumed that 100% of the waste is collected 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). An end-of-life recycling rate of 85% is assumed for steel, based on World Steel Association (2020) (C3). It is assumed that the remaining 15% of steel is taken to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, while the wooden pallet is incinerated with energy recovery (D).

LIFE CYCLE FLOW 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 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.

We have not included labels.

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	Not applicable
Ancillary materials	Not applicable
Manufacturing energy and waste	Physical Properties

Where measured production energy data are unavailable, the use of transparent and conservative engineering assumptions is considered acceptable for EPD modelling. For manual assembly of an GARO electrical cable cabinet (without energy-intensive processes such as welding or painting), the following assumptions have been applied:
 Electricity: ,067 kWh per cabinet
 Heat (Swedish district heating): 0,17 kWh per cabinet
 These values represent typical energy use for manual assembly in a Swedish industrial facility and are considered conservative. Where site-specific annual energy consumption data are available, allocation based on total factory energy use is preferred.

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	-23,4% / +22,2%

This EPD covers three variants of the GARO Cable Cabinet 400A DIN product family manufactured at GARO's production facility in Sweden. The declared products are identical in terms of material composition, manufacturing process, surface treatment, and intended use. The variants differ primarily in cabinet width, material consumption, and weight.

The environmental assessment is based on a representative product (GARO Cable Cabinet K3), which represents the average environmental performance of the product family. The K2 and K4 variants are included within the scope of this EPD through product grouping, as they share the same manufacturing process and differ only in dimensions and material quantities.

The product group covered by this EPD consists of:

GARO Cable Cabinet K2 400A DIN

Type designation: GKSD-K2424

E-number: 07 317 82

Dimensions (H × W × D): 1486 × 376 × 282 mm

Weight (EPD): 42.3 kg

GARO Cable Cabinet K3 400A DIN

Type designation: GKSD-K3444

E-number: 07 317 83

Dimensions (H × W × D): 1486 × 626 × 282 mm

Weight (EPD): 55.3 kg

GARO Cable Cabinet K4 400A DIN

Type designation: GKSD-K4460

E-number: 07 317 84

Dimensions (H × W × D): 1486 × 826 × 282 mm

Weight (EPD): 67.7 kg

All products have:

Rated current: 400 A

Lock: GISE

Intended application: Outdoor cable distribution

Manufacturing site: GARO production facility, Sweden

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.5. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

- EPD Hub Core Product Category Rules version 1.2, March 2025
- EPD Hub General Program Instructions version 1.3, March 2025
- EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
- prEN 17662:2023 Execution of steel structures and aluminium structures - Environmental Product Declarations - Product category rules complementary to EN 15804 for Steel, Iron and Aluminium structural products for use in construction works.
- EN 15941:2024 Sustainability of construction works - Data quality for environmental assessment of products and construction work - Selection and use of data
- EN 15942:2011 Sustainability of construction works - Environmental product declarations - Communication format business-to-business
- ISO 14025:2006 Environmental statements and programmes for products - Principles and general requirements
- ISO 14040:2006 Environmental management - Life cycle assessment -

Principles and framework

- ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines
- Wooden packaging waste treatment: EUROSTAT,

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

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	1,68E+02	1,84E+00	-1,07E+01	1,59E+02	2,05E+00	1,34E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,31E+00	1,04E+00	5,20E-02	-7,39E+01
GWP – fossil	kg CO ₂ e	1,69E+02	1,84E+00	2,24E+00	1,73E+02	2,05E+00	4,81E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,31E+00	1,06E+00	5,19E-02	-7,04E+01
GWP – biogenic	kg CO ₂ e	-1,55E+00	4,15E-04	-1,29E+01	-1,45E+01	4,71E-04	1,29E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,97E-04	-1,52E-02	2,33E-05	-3,44E+00
GWP – LULUC	kg CO ₂ e	5,78E-02	8,17E-04	1,19E-02	7,05E-02	9,13E-04	4,64E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,86E-04	1,31E-03	2,97E-05	-1,25E-02
Ozone depletion pot.	kg CFC-11e	3,32E-06	2,67E-08	5,81E-08	3,41E-06	2,98E-08	7,50E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,93E-08	1,40E-08	1,45E-09	-2,44E-07
Acidification potential	mol H ⁺ e	3,72E-01	6,38E-03	1,22E-02	3,91E-01	7,12E-03	3,32E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,46E-03	1,26E-02	3,63E-04	-2,88E-01
EP-freshwater ²⁾	kg Pe	7,29E-02	1,99E-04	6,66E-04	7,38E-02	2,22E-04	8,77E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,02E-04	7,04E-04	4,54E-06	-5,09E-02
EP-marine	kg Ne	8,39E-02	2,11E-03	3,84E-03	8,99E-02	2,36E-03	2,48E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,47E-03	2,80E-03	1,40E-04	-6,36E-02
EP-terrestrial	mol Ne	8,89E-01	2,28E-02	4,24E-02	9,54E-01	2,55E-02	1,53E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,60E-02	3,16E-02	1,52E-03	-6,92E-01
POCP (“smog”) ³⁾	kg NMVOCe	3,01E-01	9,35E-03	1,83E-02	3,28E-01	1,04E-02	4,77E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,58E-03	9,38E-03	5,50E-04	-2,35E-01
ADP-minerals & metals ⁴⁾	kg Sbe	7,90E-01	5,25E-06	1,30E-05	7,90E-01	5,86E-06	8,54E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,65E-06	7,48E-05	7,73E-08	-7,61E-04
ADP-fossil resources	MJ	1,57E+03	2,62E+01	3,99E+01	1,64E+03	2,92E+01	6,64E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,90E+01	1,43E+01	1,27E+00	-6,58E+02
Water use ⁵⁾	m ³ e depr.	1,07E+03	1,53E-01	1,47E+00	1,08E+03	1,71E-01	1,51E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,39E-02	2,78E-01	5,58E-02	-1,60E+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	9,19E-07	1,80E-07	2,24E-07	1,32E-06	2,01E-07	7,76E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,31E-07	1,72E-07	8,36E-09	-5,19E-06
Ionizing radiation ⁶⁾	kBq 11235e	1,31E+00	2,20E-02	2,63E-01	1,59E+00	2,45E-02	1,17E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,66E-02	1,23E-01	7,61E-04	2,26E+00
Ecotoxicity (freshwater)	CTUe	2,15E+02	5,43E+00	6,24E+01	2,83E+02	6,07E+00	6,28E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,69E+00	6,99E+01	8,49E-01	-3,22E+03
Human toxicity, cancer	CTUh	3,58E-08	2,88E-10	1,38E-08	4,99E-08	3,22E-10	1,58E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,16E-10	9,36E-10	9,41E-12	-1,05E-08
Human tox. non-cancer	CTUh	2,56E-07	1,63E-08	2,42E-08	2,97E-07	1,82E-08	7,82E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,23E-08	6,42E-08	2,12E-10	-4,85E-07
SQP ⁷⁾	-	2,34E+02	2,61E+01	1,11E+03	1,37E+03	2,92E+01	4,02E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,91E+01	2,74E+01	2,50E+00	-2,25E+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	1,60E+02	3,64E-01	8,47E+01	2,45E+02	4,06E-01	-1,25E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,60E-01	2,61E+00	1,19E-02	-3,21E+01
Renew. PER as material	MJ	0,00E+00	0,00E+00	1,29E+02	1,29E+02	0,00E+00	-1,29E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,42E+01
Total use of renew. PER	MJ	1,60E+02	3,64E-01	2,13E+02	3,74E+02	4,06E-01	-2,54E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,60E-01	2,61E+00	1,19E-02	2,12E+00
Non-re. PER as energy	MJ	1,56E+03	2,62E+01	3,15E+01	1,62E+03	2,92E+01	6,64E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,90E+01	1,43E+01	1,27E+00	-6,58E+02
Non-re. PER as material	MJ	0,00E+00	0,00E+00	8,49E+00	8,49E+00	0,00E+00	-8,49E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,29E+00
Total use of non-re. PER	MJ	1,56E+03	2,62E+01	3,99E+01	1,63E+03	2,92E+01	-1,85E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,90E+01	1,43E+01	1,27E+00	-6,56E+02
Secondary materials	kg	4,78E+00	1,10E-02	4,79E-01	5,27E+00	1,22E-02	3,76E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,09E-03	1,74E-02	3,16E-04	3,92E+01
Renew. secondary fuels	MJ	6,58E-01	1,43E-04	4,34E+00	5,00E+00	1,60E-04	3,14E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,03E-04	8,11E-04	6,60E-06	-6,28E-03
Non-ren. secondary fuels	MJ	4,24E-01	0,00E+00	0,00E+00	4,24E-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
Use of net fresh water	m ³	1,22E+00	3,76E-03	3,08E-02	1,26E+00	4,19E-03	-1,07E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,81E-03	6,38E-03	1,31E-03	-2,60E-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	2,02E+00	1,67E-01	1,67E-01	2,36E+00	1,87E-01	2,95E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,22E-02	9,42E-02	1,45E-03	-2,32E+01
Non-hazardous waste	kg	1,98E+01	3,31E+00	4,38E+00	2,75E+01	3,69E+00	1,15E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,96E-01	3,70E+00	3,35E-02	-2,82E+02
Radioactive waste	kg	1,10E-02	5,25E-06	6,69E-05	1,11E-02	5,86E-06	2,90E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,05E-06	3,14E-05	1,85E-07	5,81E-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	1,29E-02	0,00E+00	0,00E+00	1,29E-02	0,00E+00	2,72E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	4,70E+01	0,00E+00	0,00E+00
Materials for energy rec	kg	2,89E-05	0,00E+00	0,00E+00	2,89E-05	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	2,39E+04	0,00E+00	0,00E+00	2,39E+04	0,00E+00	1,35E+01	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	0,00E+00	0,00E+00	0,00E+00	5,70E+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	0,00E+00	0,00E+00	0,00E+00	7,82E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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	C3	C4	D
Global Warming Pot.	kg CO ₂ e	9,23E-01	1,82E+00	2,24E+00	4,99E+00	2,04E+00	6,64E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,30E+00	1,05E+00	5,14E-02	-7,01E+01
Ozone depletion Pot.	kg CFC ₁₁ e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acidification	kg SO ₂ e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Eutrophication	kg PO ₄ ³ e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
POCP (“smog”)	kg C ₂ H ₄ e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADP-elements	kg Sbe	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-fossil	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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	1,69E+02	1,84E+00	2,25E+00	1,73E+02	2,05E+00	4,81E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,31E+00	1,06E+00	5,19E-02	-7,04E+01

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. Heat production, natural gas, at boiler modulating <100kW, Albania, Ecoinvent, 0.0770 kgCO₂e/MJ
2. Electricity, medium voltage, residual mix, Sweden, Ecoinvent, 0.0836 kgCO₂e/kWh

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry, >32 metric ton, diesel, EURO 5, 300.0 km

Transport to the building site (A4) - Scenario documentation

Scenario parameter	Value
Capacity utilization (including empty return) %	50
Bulk density of transported products	213
Volume capacity utilization factor	<1

Installation at the building site (A5) - Scenario documentation

Scenario parameter	Value
Energy: type and consumption (MJ or kWh)	Diesel, 0,53 l for fork lift.
Water use (m ³)	-
Ancillary materials: type and mass (kg)	-
Waste materials: type and mass (kg)	Wooden pallets. 8,5kg.
Waste materials: output routes	Wood packaging waste is modelled in accordance with Swedish end-of-life practice and the applied background dataset. In Sweden, wood waste is predominantly directed to energy recovery, with recycling and a negligible residual share to landfill. Wood packaging: 2.72 kg recycling, 2.55 kg incineration, 3.23 kg landfill
Direct emissions (kg)	-

End of life (C1-C4) - Scenario documentation

Scenario information	Value
Collection process: collected separately (kg)	53
Collection process: Mixed waste (kg)	-
Recovery: re-use (kg)	0
Recovery: recycling (kg)	47
Recovery: energy recovery (kg)	0
Disposal (kg)	0
Scenario assumptions e.g. transportation (mode, km) & other	Diesel truck 16-32 metric ton, EURO5. Distance to recycling: 250 km; distance to landfill: 50 km; distance to incineration: 100 km

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

Elena Antuña-Bernardo as an authorized verifier for EPD Hub Limited
17.09.2026

