



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Earthing points

ELIT AS



EPD HUB, HUB-5711

Published on 13.03.2026, last updated on 13.03.2026, valid until 12.03.2031

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	ELIT AS
Address	Ulvedalsvegen 2, 2030 Nannestad, Norway
Contact details	firmapost@elit.no
Website	https://elit.no/

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	Electrical 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	Martine Haggren
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	Earthing point
Additional labels	-
Product reference	Product models covered at the time of publication: 30120042, 30120043, 30120086
Place(s) of raw material origin	China
Place of production	Chengdu, China
Place(s) of installation and use	Norway
Period for data	01.01.2024-31.12.2024
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	(+18% / -1%)
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	9,84

ENVIRONMENTAL DATA SUMMARY

Declared unit	1kg
Declared unit mass	1 kg
Mass of packaging	0,035 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	8,93
GWP-total, A1-A3 (kgCO ₂ e)	8,97
Secondary material, inputs (%)	28
Secondary material, outputs (%)	60,9
Total energy use, A1-A3 (kWh)	37
Net freshwater use, A1-A3 (m ³)	0,08

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

ELIT is a Norwegian competence center and total supplier offering sourcing and technical service solutions to the electrical, HVAC, plumbing, industrial, and infrastructure sectors. In addition to delivering high-quality components and systems, ELIT provides product customization, technical support, and professional training through its internal competence center.

ELIT offers a wide range of products tailored to meet the needs of different industries. For more information about ELIT AS and its full product selection, visit <https://elit.no/>.

PRODUCT DESCRIPTION

This EPD covers three ELIT grounding point products for permanent earthing in concrete and electrical installations: JP- ϕ 8-25mm²-5m-IX, JP- ϕ 12-50mm²-5m-CuWire, and JP120-4XM12. The products consist of copper conductors connected to steel rods or solid copper heads. Two variants feature halogen-free insulated copper (25 and 50 mm²), while the 120 mm² variant uses solid copper with M12 threaded connections.

Application:

Used for establishing grounding points against the building's reinforcement. Rods or copper heads are fixed before concrete casting; after curing, the grounding point allows permanent connection of conductors.

Technical Characteristics:

- Conductor cross-section: 25, 50, 120 mm²
- Conductor length: up to 5 m (insulated), 1 m (120 mm² variant)
- Steel rod diameter: ϕ 8 mm or ϕ 12 mm

-Copper head (120 mm² variant): 80 × 80 mm, M12 threaded

Declared unit: 1 kg of average product output, based on weighted production volumes.

Further information can be found at:
<https://elit.no/>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	88,4	China
Minerals	0	-
Fossil materials	11,6	China
Bio-based materials	0	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0,0190
Biogenic carbon content in packaging, kg C	0,0109

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1kg
Mass per declared unit	1 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

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

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

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

Product stage		Assembly stage			Use stage							End of life stage				Beyond the system boundaries	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
X	X	X	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.

The products covered by this EPD are grounding components consisting mainly of copper, steel and PVC. They are manufactured at a single production facility in China using standard metal processing and assembly techniques. Raw materials are processed into finished products through mechanical processing and assembly operations. A material loss of approximately 3% during manufacturing is included in the life cycle model based on supplier information and standard industry practice.

The declared unit is 1 kg of finished product. The results represent a mass-weighted average of three product variants with different conductor cross-sections (25 mm², 50 mm² and 120 mm²). All variants share the same material types, production technology and functional application.

After production, the products are transported to ELIT's central warehouse in Norway for storage and distribution. ELIT does not carry out further manufacturing. Packaging materials and energy use related to storage and handling are included in the inventory. The electricity mix reflects the Norwegian grid, including transmission losses.

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.

Module A4 covers the transport of the products to the customer. Transport for A4 is calculated based on the average annual sales distance from ELIT's main warehouse to customers. This transport distance is calculated to be 40km, and the transportation method is lorry. The total transported weight includes both products and packaging per declared unit. Vehicle capacity utilization (volume factor) is assumed to be 100%, meaning full load. In

practice, this may vary; however, since transport emissions contribute relatively little to the overall environmental impacts, variation in load factor is considered negligible. To ensure a conservative approach, empty returns are included in the assessment through the average load factor in the Ecoinvent transport datasets. Products are properly packaged to avoid damage or losses during transport.

Module A5 (installation) is not included in the scope, as the product does not result in significant material losses, emissions, or energy use during installation. Only packaging waste treatment is reported in A5, based on EU end-of-life scenarios for wood, and plastic packaging materials.

PRODUCT USE AND MAINTENANCE (B1-B7)

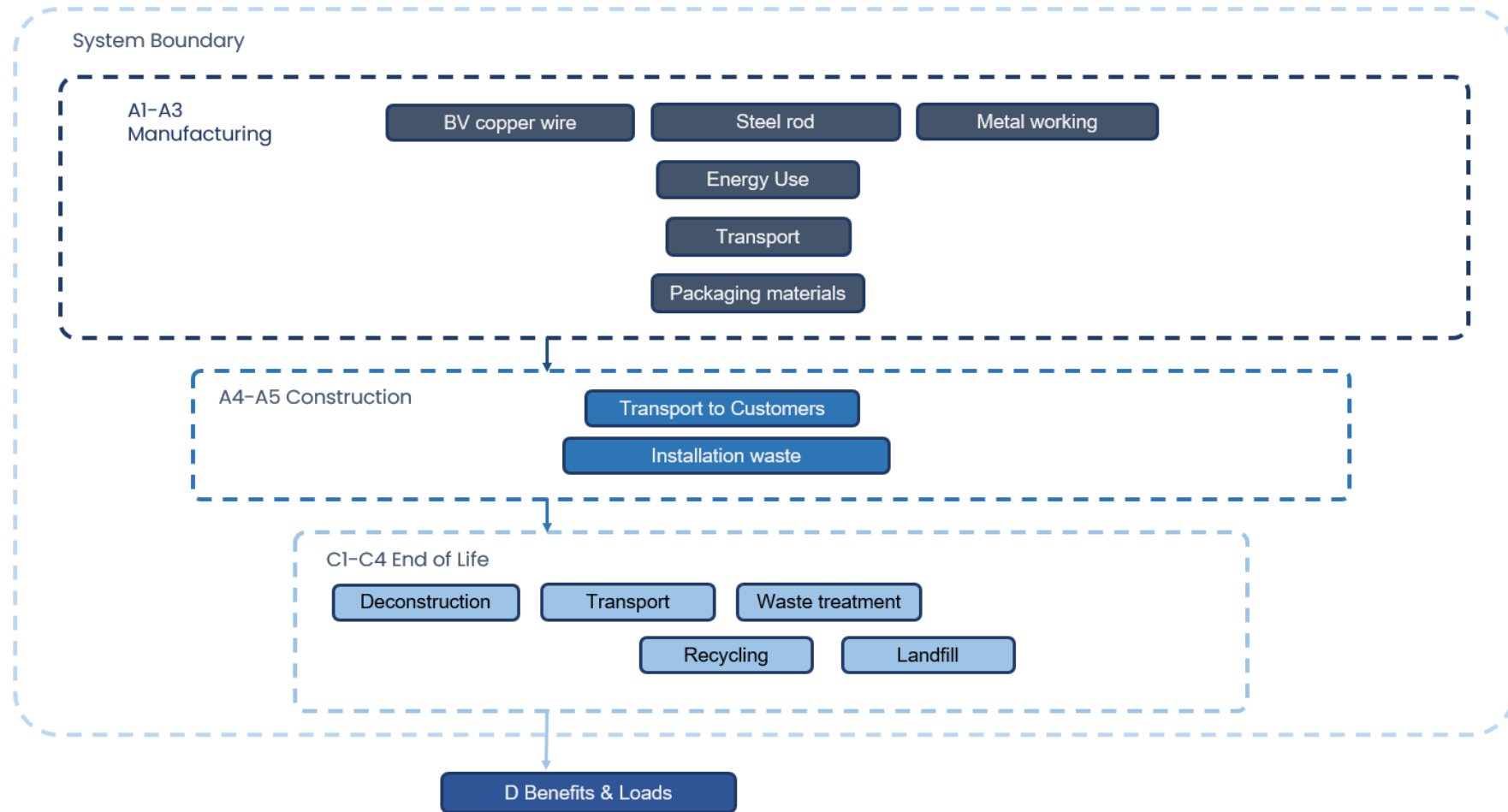
This EPD does not cover the use phase.

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

PRODUCT END OF LIFE (C1-C4, D)

Demolition is assumed to consume 0.01 kWh/kg of product, with diesel fuel from construction machinery as the energy source (C1). It is assumed that 100% of the waste is collected and transported to a waste treatment facility, with a transport distance of 50 km by lorry (C2). At the end of life, copper is assumed to be 60% recycled and 40% landfilled (EN 50693:2019), while steel is considered to have a 95% recycling rate and 5% landfill share (World Stainless, 2024). For the PVC, 25% is assumed to be landfilled, 34% recycled, and 41% incinerated (Plastics Europe, 2020). Benefits and loads in Module D are calculated for the recycling activities described in Module C3, and for the exported energy from the incineration of packaging materials in Module A5.

Figure: Life Cycle Diagram- Overview of the life cycle stages included in the EPD, showing all relevant processes from raw material extraction to end-of-life, including potential benefits beyond the system boundary.



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	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

The welding powders are purchased as fully finished products. ELIT does not perform any additional manufacturing or processing steps beyond packaging and distribution. No modifications or alterations are made to the products before they are sold.

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on average results of product group - by total mass
Variation in GWP-fossil for A1-A3, %	(+18% / -1%)

This EPD represents a group of three grounding products with different conductor cross-sections (25 mm², 50 mm² and 120 mm²). The products have the same function, material composition (copper, steel and PVC) and

manufacturing processes, but differ in mass and dimensional configuration. The results declared in this EPD are based on a production-weighted average calculated from total mass of products sold over a three year reference period. The weighting is based on total mass placed on the market, in line with the declared unit of 1 kg.

All products are manufactured at the same production site and follow the same production technology and material specifications. The geographical scope of manufacturing is China, with distribution and sales in Norway. The EPD is representative for grounding products within the specified cross-sectional range and material composition.

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'.

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	8,12E+00	4,77E-01	3,79E-01	8,97E+00	4,46E-03	4,91E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,00E-02	1,23E-01	5,39E-03	-3,05E+00
GWP – fossil	kg CO ₂ e	8,04E+00	4,77E-01	4,15E-01	8,93E+00	4,46E-03	1,28E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,99E-02	1,23E-01	5,39E-03	-3,03E+00
GWP – biogenic	kg CO ₂ e	6,86E-02	8,62E-05	-3,61E-02	3,26E-02	1,01E-06	3,62E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,58E-06	-2,45E-04	-2,40E-06	-1,00E-02
GWP – LULUC	kg CO ₂ e	1,18E-02	2,06E-04	7,71E-05	1,21E-02	1,99E-06	1,63E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,33E-05	3,40E-05	1,31E-06	-4,47E-03
Ozone depletion pot.	kg CFC-11e	2,05E-07	8,39E-09	6,31E-09	2,19E-07	6,58E-11	1,77E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,23E-10	6,60E-10	6,39E-11	-2,71E-08
Acidification potential	mol H ⁺ e	1,58E-01	6,70E-03	1,19E-03	1,66E-01	1,52E-05	7,55E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,00E-04	2,48E-04	1,59E-05	-7,54E-02
EP-freshwater ²⁾	kg Pe	9,48E-02	2,47E-05	1,97E-04	9,50E-02	3,47E-07	3,57E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,33E-06	1,38E-05	1,92E-07	-5,27E-02
EP-marine	kg Ne	4,11E-02	1,74E-03	2,99E-04	4,31E-02	4,99E-06	6,88E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,25E-05	6,49E-05	1,29E-05	-2,15E-02
EP-terrestrial	mol Ne	5,84E-01	1,93E-02	2,96E-03	6,07E-01	5,43E-05	3,16E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,54E-04	6,44E-04	6,60E-05	-3,13E-01
POCP (“smog”) ³⁾	kg NMVOCe	1,19E-01	5,73E-03	8,71E-04	1,26E-01	2,24E-05	9,99E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,41E-04	1,96E-04	2,44E-05	-6,15E-02
ADP-minerals & metals ⁴⁾	kg Sbe	1,91E-03	1,10E-06	4,26E-07	1,91E-03	1,24E-08	5,04E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,56E-08	1,06E-06	3,77E-09	-9,75E-04
ADP-fossil resources	MJ	9,19E+01	6,34E+00	5,90E+00	1,04E+02	6,47E-02	1,63E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,23E-01	3,65E-01	5,43E-02	-3,50E+01
Water use ⁵⁾	m ³ e depr.	3,57E+00	2,60E-02	5,28E-02	3,65E+00	3,19E-04	7,73E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,98E-03	1,31E-01	2,16E-04	-1,25E+00

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	1,39E-06	2,78E-08	5,12E-09	1,42E-06	4,46E-10	2,24E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,49E-09	3,09E-09	3,62E-10	-6,36E-07
Ionizing radiation ⁶⁾	kBq 11235e	5,42E-01	6,09E-03	5,27E-02	6,01E-01	5,63E-05	4,72E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,47E-04	1,66E-03	3,67E-05	-2,12E-01
Ecotoxicity (freshwater)	CTUe	8,65E+03	6,93E-01	1,10E+01	8,66E+03	9,15E-03	2,63E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,55E-02	5,66E+00	1,53E-02	-6,59E+02
Human toxicity, cancer	CTUh	8,40E-09	8,95E-11	7,37E-11	8,57E-09	7,36E-13	1,86E-12	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,06E-12	4,61E-11	5,23E-13	-1,92E-09
Human tox. non-cancer	CTUh	4,01E-07	3,05E-09	2,03E-09	4,06E-07	4,19E-11	4,92E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,66E-10	1,32E-09	4,16E-11	-8,96E-08
SQP ⁷⁾	-	1,14E+02	2,52E+00	3,56E+00	1,21E+02	6,51E-02	1,75E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,85E-01	4,60E-01	1,09E-01	-5,80E+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	2,90E+01	8,62E-02	3,66E-01	2,94E+01	8,86E-04	-3,67E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,79E-03	4,73E-02	5,67E-04	-1,55E+01
Renew. PER as material	MJ	0,00E+00	0,00E+00	3,14E-01	3,14E-01	0,00E+00	-3,14E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,00E-01
Total use of renew. PER	MJ	2,90E+01	8,62E-02	6,80E-01	2,97E+01	8,86E-04	-6,82E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,79E-03	4,73E-02	5,67E-04	-1,54E+01
Non-re. PER as energy	MJ	9,19E+01	6,34E+00	5,73E+00	1,04E+02	6,47E-02	-3,89E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,23E-01	-2,33E+00	-1,08E+00	-3,50E+01
Non-re. PER as material	MJ	6,51E-02	0,00E+00	1,63E-01	2,28E-01	0,00E+00	-1,63E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-4,89E-02	-1,63E-02	1,77E-01
Total use of non-re. PER	MJ	9,19E+01	6,34E+00	5,89E+00	1,04E+02	6,47E-02	-5,51E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,23E-01	-2,37E+00	-1,10E+00	-3,49E+01
Secondary materials	kg	2,80E-01	2,95E-03	1,80E-03	2,85E-01	2,75E-05	2,01E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,88E-04	4,00E-04	1,44E-05	3,62E-01
Renew. secondary fuels	MJ	3,78E-03	2,52E-05	1,08E-02	1,46E-02	3,50E-07	2,06E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,39E-06	2,67E-05	2,94E-07	-1,66E-03
Non-ren. secondary fuels	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
Use of net fresh water	m ³	7,86E-02	6,92E-04	1,30E-03	8,06E-02	9,56E-06	-3,74E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,72E-05	3,04E-03	-5,83E-05	-4,72E-02

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	1,74E+00	8,83E-03	3,70E-02	1,79E+00	1,10E-04	2,02E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,33E-04	3,15E-02	6,47E-05	-1,12E+00
Non-hazardous waste	kg	3,33E+01	1,62E-01	9,86E-01	3,44E+01	2,03E-03	4,44E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,37E-02	1,70E-01	1,45E-01	-2,94E+00
Radioactive waste	kg	1,24E-04	1,51E-06	1,33E-05	1,39E-04	1,38E-08	1,15E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,50E-08	4,19E-07	8,96E-09	-5,24E-05

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	0,00E+00	0,00E+00	0,00E+00	1,20E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	6,09E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	0,00E+00	0,00E+00	0,00E+00	1,00E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	3,90E-01	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	4,20E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,60E-01	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	5,80E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	2,30E-01	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	8,13E+00	4,74E-01	4,13E-01	9,02E+00	4,43E-03	1,36E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,98E-02	1,24E-01	5,22E-03	-3,03E+00
Ozone depletion Pot.	kg CFC ₁₁ e	1,97E-07	6,67E-09	5,08E-09	2,09E-07	5,25E-11	1,44E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,38E-10	6,09E-10	5,08E-11	-2,28E-08
Acidification	kg SO ₂ e	1,12E-01	5,31E-03	9,57E-04	1,18E-01	1,16E-05	5,57E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,67E-05	1,98E-04	1,18E-05	-5,14E-02
Eutrophication	kg PO ₄ ³ e	3,52E-02	6,79E-04	4,57E-04	3,63E-02	2,83E-06	2,21E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,87E-05	3,20E-05	4,32E-06	-1,80E-02
POCP (“smog”)	kg C ₂ H ₄ e	5,73E-03	2,94E-04	6,28E-05	6,08E-03	1,03E-06	7,60E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,86E-06	1,40E-05	1,59E-06	-2,49E-03
ADP-elements	kg Sbe	1,90E-03	1,08E-06	4,11E-07	1,90E-03	1,21E-08	4,86E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,33E-08	1,01E-06	3,69E-09	-9,72E-04
ADP-fossil	MJ	8,39E+01	6,24E+00	4,99E+00	9,51E+01	6,38E-02	1,56E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,17E-01	3,38E-01	5,37E-02	-3,17E+01

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	8,05E+00	4,77E-01	4,15E-01	8,94E+00	4,46E-03	1,28E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,99E-02	1,24E-01	5,39E-03	-3,04E+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

Scenario parameter	Value
Electricity data source and quality	Electricity, medium voltage, residual mix, Norway. Modelled with <i>Electricity, medium voltage, residual mix (Norway)</i> , Ecoinvent 3.11. Calculation based on AIB (2024)
Electricity CO ₂ e / kWh	0.73 kg CO ₂ e/kWh
District heating data source and quality	NA
District heating CO ₂ e / kWh	NA

Transport scenario documentation A4

Scenario parameter	Value
Fuel type, consumption, and vehicle type	EURO5 (Ecoinvent market for transport, freight, lorry >32 metric ton).
Average transport distance, km	40km
Capacity utilization (including empty return), %	100
Bulk density of transported products	Not specified (transport modelled per kg).
Volume capacity utilization factor	1 (assumed full load)

Installation scenario documentation A5

Scenario information	Value
Ancillary materials for installation (specified by material) / kg or other units as appropriate	0
Water use / m ³	0
Other resource use / kg	0
Quantitative description of energy type (regional mix) and consumption during the installation process / kWh or MJ	Exported energy from installation: Electricity (0.017 MJ + 0.025 MJ) and Thermal energy (0.023 MJ + 0.035 MJ), modelled with Ecoinvent datasets
Waste materials on the building site before waste processing, generated by the product's installation (specified by type) / kg	Wood waste: 0.025kg Polyethylene waste: 0.01kg
Output materials (specified by type) as result of waste processing at the building site (collection for recycling, energy recovery, disposal) / kg	-Wood recycling (sorting & shredding): 0.008kg -Wood incineration with energy recovery: 0.0075kg -Wood landfill: 0.0095kg - Polyethylene recycling (sorting): 0.004kg -Polyethylene incineration with energy recovery: 0.0037kg - Polyethylene landfill: 0.0023kg
Direct emissions to ambient air, soil and water / kg	0

End of life scenario documentation

Scenario information	Value
Collection process – kg collected separately	0.99
Collection process – kg collected with mixed waste	0
Recovery process – kg for re-use	0
Recovery process – kg for recycling	0.609
Recovery process – kg for energy recovery	0.048
Disposal (total) – kg for final deposition	0.336
Scenario assumptions e.g. transportation	50 km truck transport of full unit; deconstruction energy 0,01 kWh diesel (Ecoinvent “market for diesel, burned in building machine”).

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 13.03.2026



ANNEX I: RESULTS FOR PRODUCT VARIANTS

Table 1. EN 15804+A2 GWP results for product variants

This table presents the Global Warming Potential (GWP) values for the different product variants covered by this EPD. The products are individually modelled in the LCA. The declared unit of this EPD is 1 kg of product, and all results are reported per declared unit.

For product variants with a total mass different from 1 kg, the environmental impact of the full product can be calculated by multiplying the reported results by the product's total mass.

Product	Product Number	A1-A3, EN 15804+A2		
		GWP _{-total}	GWP _{fossil}	GWP _{biogenic}
		Reference case	–	8.97
Variant	30120043	8.99	8.95	0.03
Variant (max case)	30120086	10.54	10.52	0.01
Variant (min case)	30120042	8.89	8.84	0.04