

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Elpress AB Cu-Tube Terminals

KR, KRF, KRD, KS, KSF, KSD, KST, KSxP, CUT, KRX, KSX, KRFS, KRFN



EPD HUB, HUB-3626

Published on 10.07.2025, last updated on 10.07.2025, valid until 10.07.2030

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.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Elpress AB
Address	Industrivägen 15, 872 32 Kramfors
Contact details	support@elpress.se
Website	https://www.elpress.net

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Manufactured 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	Anna Granås, Tobias Norlin, Elpress 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	Imane Uald Lamkaddam as an authorized verifier for EPD Hub

This EPD is intended for business-to-business and/or business-to-consumer communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	Elpress AB Cu-Tube Terminals
Additional labels	KR, KRF, KRD, KS, KSF, KSD, KST, KSxP, CUT, KRX, KSX, KRFS, KRFN
Product reference	See product description
Place(s) of raw material origin	Austria and Finland
Place of production	Kramfors, Sweden
Place(s) of installation and use	Worldwide
Period for data	Calendar year 2024
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	<1
A1-A3 Specific data (%)	16,4

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO₂e)	4,13E+00
GWP-total, A1-A3 (kgCO₂e)	4,04E+00
Secondary material, inputs (%)	8,8
Secondary material, outputs (%)	60
Total energy use, A1-A3 (kWh)	24,2
Net freshwater use, A1-A3 (m³)	0,01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Since 1959, Elpress is a manufacturer of crimping systems, delivering premium solutions for demanding industries worldwide. With a strong commitment to quality, sustainability and reliability, we develop, manufacture, and provide complete crimping systems that ensure secure and durable electrical connections. Elpress represents knowledge, experience, development and above all, safety. Our headquarters and production is in Sweden. Our market is worldwide.

PRODUCT DESCRIPTION

Elpress terminals for Cu conductors 0.75 mm² to 1000 mm² are made of copper 99.9%. The system fits both stranded conductors, as per IEC 60228 class 2, and flexible conductors as per IEC 60228 class 5 and class 6. They ensure a reliable and durable connection for earthing and bonding. They provide safe and efficient connections and give you a reliable and durable solution.

Further information can be found at: <https://www.elpress.net>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	99,9	EU
Minerals	0,1	EU
Fossil materials	-	-
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	
Biogenic carbon content in packaging, kg C	0,024

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg
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	Recovery	Recycling

Modules not declared = ND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A market-based approach is used in modelling the electricity mix utilized in the factory. The raw material for production is purchased as copper tubes and made of recycled phosphorus de-oxidized copper with limited residual phosphorus content. The manufacturing process of the raw material are casting, extruding, drawing/rolling.

Elpress production process for Copper tube terminals is mechanical processing such as cutting, pressing, shearing tumbling and tin plating, mainly as final step before packaging. Manufacturing process requires, besides raw material, electricity and energy for heating of production facilities and fuel for the internal transport from production to storage. The copper waste produced at the plant is directed to recycling as the loss of material is considered as well as wastewater treatments.

Transportation of raw materials, ancillary materials and packaging materials is assessed as road transports.

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 application area of the product is for securely connect electrical cables to terminals, busbar or other electrical equipment. The process involves inserting the conductor into the lug and then crimping it with a special tool which means that the energy and material use during installation is likely to be low. Module A5 therefore only covers the handling of packaging waste and cardboard for recycling. The copper tube terminal is a complete product delivered ready for installation and no losses occur. Therefore, no losses are declared for the product. Products are mainly delivered to whole Europe and worldwide. The distance to the customer (weighted average) is estimated as 1229,38 km by lorry and 1706,5 km by air.

Road transport is assumed to be carried out by EURO6 lorry 16-32 metric tons.

Air transport is assumed to be carried out by freight, aircraft, unspecified.

Transportation losses are assessed as insignificant (<1%).

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.

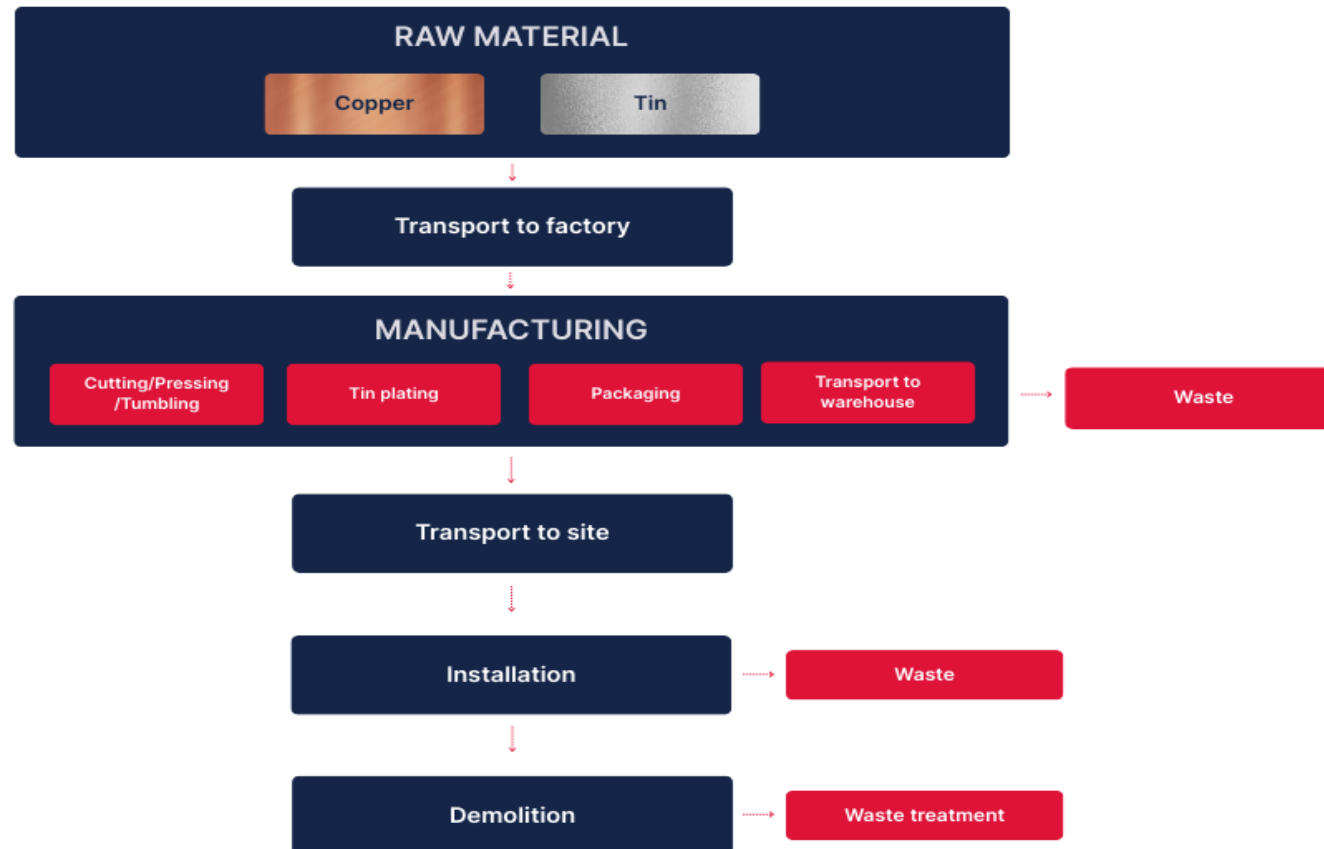
PRODUCT END OF LIFE (C1-C4, D)

Energy consumption for demolition is assumed negligible.

An end-of-life recycling rate of 60% is assumed. The disassembled material collected for treatment is transported to the closest facility for sorting and recycling (C2-C3). The assumption for an average distance and transport method is estimated to be 250 km by EURO6 lorry with 16-32 tons. The remaining 40% is assumed to be landfilled (A4) using transport distance 50 km with EURO6 lorry 16-32 tons.

Benefits and loads from replacing copper production and packaging material due to the recycling at EoL, are assessed in module D.

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The LCA includes all industrial processes from raw material acquisition to production, distribution, installation and end-of-life stages. The study includes modules A1-A3, A4, A5, C1-C4 and D modules, and does not exclude any modules or processes which are stated mandatory in the EN 15804:2012+A2:2019 and the applied PCR. For easier modelling and because of lack of accuracy in available modelling resources many constituents under 1% of product mass are excluded. These include some ancillary materials which are all present in the manufacturing only in very small amounts and have no serious impact on the emissions of the product. The stage-specific total neglected input and output flows also do not exceed 5% of energy usage or mass. 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, are included in the calculation. 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

In this study allocation could not be avoided for packaging, ancillary material, energy consumption and waste production as the information was only measured on factory or production process level. The inputs were allocated to studied product based on annual production volume (mass). The values for 1 kilogram of product are calculated by considering the total product weight per annual production. In the factory, several kinds of metal products are produced; since the production processes of these products are similar, the annual production percentages are taken into consideration for allocation.

According to the ratio of the annual production of the declared product to the total annual production at the factory, the annual total raw materials, energy consumption, packaging materials and the generated waste per the declared product are allocated. Subsequently, the product output fixed to 1 kg and the corresponding amount of product is used in the calculations. Distribution distance was calculated as a sales volume-based weighted average

according to the percentage ratios for each destination point. This LCA study is conducted in accordance with all methodological considerations, such as performance, system boundaries, data quality, allocation procedures, and decision rules to evaluate inputs and outputs.

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 data used is for total produced kilograms in calendar year 2024 for all made products in kilograms. All calculations for produced in 2024 are calculated from that number of kilograms.

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	<1

EPD calculation is based on average. The products do not differ in terms of packaging materials, consumption of process materials and energy. There are small differences in the amounts of tin and production waste. The products are all manufactured in the same production plant in Kramfors, Sweden.

LCA SOFTWARE AND BIBLIOGRAPHY

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

ENVIRONMENTAL IMPACT DATA

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	3,43E+00	4,63E-01	1,56E-01	4,04E+00	1,76E+00	1,66E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,23E-02	1,63E-02	2,50E-03	-3,38E+00
GWP – fossil	kg CO ₂ e	3,43E+00	4,63E-01	2,36E-01	4,13E+00	1,76E+00	2,09E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,23E-02	1,63E-02	2,50E-03	-3,28E+00
GWP – biogenic	kg CO ₂ e	-8,34E-03	9,17E-05	-8,31E-02	-9,13E-02	1,61E-04	1,64E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,48E-06	-4,87E-05	-7,94E-07	-9,05E-02
GWP – LULUC	kg CO ₂ e	1,24E-04	1,67E-04	3,15E-03	3,44E-03	1,95E-04	1,15E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,16E-05	1,92E-05	1,43E-06	-4,79E-03
Ozone depletion pot.	kg CFC-11e	5,97E-09	9,21E-09	6,32E-09	2,15E-08	2,82E-08	2,11E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,42E-10	1,75E-10	7,23E-11	-3,01E-08
Acidification potential	mol H ⁺ e	2,34E-02	9,68E-04	9,89E-04	2,54E-02	6,81E-03	8,42E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,71E-05	1,74E-04	1,77E-05	-9,78E-02
EP-freshwater ²⁾	kg Pe	2,17E+01	3,14E-05	5,99E-05	2,17E+01	3,79E-05	4,65E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,17E-06	8,83E-06	2,05E-07	-7,10E-02
EP-marine	kg Ne	6,22E-03	2,33E-04	4,45E-04	6,90E-03	2,66E-03	1,36E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,61E-05	3,88E-05	6,75E-06	-2,84E-02
EP-terrestrial	mol Ne	6,83E-02	2,51E-03	3,31E-03	7,41E-02	2,91E-02	2,66E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,74E-04	4,37E-04	7,37E-05	-4,18E-01
POCP (“smog”) ³⁾	kg NMVOce	1,96E-02	1,61E-03	9,95E-04	2,22E-02	9,79E-03	1,02E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,12E-04	1,29E-04	2,64E-05	-8,09E-02
ADP-minerals & metals ⁴⁾	kg Sbe	1,45E-03	1,56E-06	1,73E-06	1,45E-03	1,14E-06	1,35E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,07E-07	9,61E-07	3,97E-09	-1,30E-03
ADP-fossil resources	MJ	4,31E+01	6,51E+00	2,29E+01	7,25E+01	2,35E+01	1,90E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,54E-01	1,92E-01	6,13E-02	-3,75E+01
Water use ⁵⁾	m ³ e depr.	5,96E-02	3,25E-02	2,62E-01	3,54E-01	4,47E-02	5,21E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,26E-03	3,05E-03	1,77E-04	-1,30E+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	9,91E-08	3,41E-08	1,51E-08	1,48E-07	3,23E-08	1,13E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,38E-09	2,43E-09	4,03E-10	-7,95E-07
Ionizing radiation ⁶⁾	kBq 11235a	1,78E-01	8,41E-03	1,52E+00	1,70E+00	1,03E-02	1,25E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,85E-04	6,91E-04	3,85E-05	-2,33E-01
Ecotoxicity (freshwater)	CTUe	1,71E+00	8,73E-01	1,28E+00	3,86E+00	1,37E+00	6,79E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,04E-02	1,12E-01	5,14E-03	-8,49E+02
Human toxicity, cancer	CTUh	1,37E-07	7,86E-11	9,32E-11	1,37E-07	1,35E-10	1,51E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,41E-12	1,31E-11	4,60E-13	-1,84E-09
Human tox. non-cancer	CTUh	1,37E-07	4,13E-09	3,32E-09	1,45E-07	1,75E-08	8,03E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,87E-10	8,34E-10	1,06E-11	-1,04E-07
SQP ⁷⁾	-	9,65E-01	3,93E+00	9,29E+00	1,42E+01	3,41E+00	1,41E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,74E-01	3,64E-01	1,21E-01	-8,04E+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	3,43E+00	1,14E-01	4,43E+00	7,98E+00	1,35E-01	-9,18E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,95E-03	2,99E-02	5,92E-04	-1,97E+01
Renew. PER as material	MJ	0,00E+00	0,00E+00	7,43E-01	7,43E-01	0,00E+00	-7,43E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,57E-01
Total use of renew. PER	MJ	3,43E+00	1,14E-01	5,17E+00	8,72E+00	1,35E-01	-1,66E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,95E-03	2,99E-02	5,92E-04	-1,90E+01
Non-re. PER as energy	MJ	5,02E+01	6,51E+00	2,25E+01	7,92E+01	2,35E+01	1,90E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,54E-01	1,92E-01	6,13E-02	-3,76E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	2,43E-03	2,43E-03	0,00E+00	-2,43E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,59E-02
Total use of non-re. PER	MJ	5,02E+01	6,51E+00	2,25E+01	7,92E+01	2,35E+01	1,66E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,54E-01	1,92E-01	6,13E-02	-3,75E+01
Secondary materials	kg	8,80E-02	3,04E-03	5,81E-02	1,49E-01	3,37E-03	3,14E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,11E-04	2,23E-04	1,54E-05	4,24E-01
Renew. secondary fuels	MJ	3,15E-03	3,83E-05	5,40E-03	8,59E-03	2,92E-05	1,77E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,67E-06	1,01E-05	3,19E-07	-2,02E-03
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	1,52E-03	8,90E-04	8,36E-03	1,08E-02	1,39E-03	-1,07E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,18E-05	8,41E-05	6,37E-05	-5,51E-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	6,64E-01	9,55E-03	1,21E-02	6,86E-01	1,30E-02	3,21E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,60E-04	1,50E-03	6,77E-05	-6,95E-01
Non-hazardous waste	kg	3,76E-01	2,01E-01	4,62E+00	5,20E+00	2,72E-01	3,64E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,39E-02	4,22E-02	1,55E-03	8,48E-01
Radioactive waste	kg	1,65E-04	2,09E-06	3,32E-04	5,00E-04	2,52E-06	3,18E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,45E-07	1,70E-07	9,39E-09	-5,73E-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	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	4,16E-02	0,00E+00	1,74E-01	2,16E-01	0,00E+00	4,80E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	6,00E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	3,98E-03	0,00E+00	0,00E+00	3,98E-03	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,23E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,30E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,30E-02	MND	MND	MND	MND	MND	MND	MND	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	3,42E+00	4,60E-01	2,40E-01	4,12E+00	1,75E+00	7,91E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,21E-02	1,63E-02	2,47E-03	-3,27E+00
Ozone depletion Pot.	kg CFC ₁₁ e	5,07E-09	7,33E-09	7,86E-09	2,03E-08	2,23E-08	1,72E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,11E-10	1,45E-10	5,74E-11	-2,54E-08
Acidification	kg SO ₂ e	2,60E-02	7,77E-04	1,24E-03	2,80E-02	5,02E-03	6,43E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,39E-05	1,40E-04	1,31E-05	-6,60E-02
Eutrophication	kg PO ₄ ³ e	2,42E-03	1,97E-04	5,68E-04	3,19E-03	1,03E-03	9,64E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,36E-05	2,00E-05	4,16E-06	-2,39E-02
POCP (“smog”)	kg C ₂ H ₄ e	5,35E-04	8,21E-05	8,24E-05	6,99E-04	3,90E-04	1,90E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,71E-06	8,30E-06	1,24E-06	-3,15E-03
ADP-elements	kg Sbe	1,45E-03	1,53E-06	1,77E-06	1,45E-03	1,11E-06	1,32E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,05E-07	9,58E-07	3,89E-09	-1,30E-03
ADP-fossil	MJ	4,42E+01	6,37E+00	2,89E+00	5,35E+01	2,33E+01	1,69E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,44E-01	1,82E-01	6,07E-02	-3,38E+01

ENVIRONMENTAL IMPACTS – 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	3,43E+00	4,63E-01	2,39E-01	4,14E+00	1,76E+00	2,09E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,23E-02	1,63E-02	2,50E-03	-3,29E+00

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

SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity, medium voltage, residual mix; Sweden; Ecoinvent 3.10.1
Electricity CO ₂ e / kWh	0.0512 kg CO ₂ e / kWh
District heating data source and quality	District heat; Sundsvall; Sweden; LCA study based on fuel data provided by Energi Företagen 2023, One Click LCA 2025
District heating CO ₂ e / kWh	0.0276 kg CO ₂ e / 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, Europe / Transport, Freight, Aircraft, unspecified, World
Average transport distance, km	1229,38 / 1706,5
Capacity utilization (including empty return) %	50%
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	-
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	Cardboard: 0,058 kg
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	% are for recycling incineration w. energy recovery, landfill respectively. Cardboard: 83%, 8%, 9%
Direct emissions to ambient air, soil and water / kg	-

End of life scenario documentation

Scenario information	Value
Collection process – kg collected separately	-
Collection process – kg collected with mixed waste	1
Recovery process – kg for re-use	-
Recovery process – kg for recycling	0,6
Recovery process – kg for energy recovery	-
Disposal (total) - kg for final deposition	0,4
Scenario assumptions, e.g. transportation	Transported 250 km (recycling) and 50 km (landfill) by lorry.

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 15802+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

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited
10.07.2025

