



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

CP 679A Plus Fire Protection Cable Coating
Hilti AG



EPD HUB, HUB-3841

Published on 31.08.2025, last updated on 31.08.2025, valid until 30.08.2030

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.



Created with One Click LCA



GENERAL INFORMATION

MANUFACTURER

Manufacturer	Hilti AG
Address	Feldkircherstrasse 100, FL-9494, Schaan, Liechtenstein
Contact details	sustainability@hilti.com
Website	www.hilti.group

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 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Siti Nur Syaza Abdul Rahman, Hilti AG
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	Sergio Ballen Zamora 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	CP 679A Plus Fire Protection Cable Coating
Additional labels	-
Product reference	2398669
Place(s) of raw material origin	Germany
Place of production	Hilti Werk 37, Germany (city: commercially sensitive)
Place(s) of installation and use	-
Period for data	Calendar year 2024
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 (%)	89,2

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of CP 679A Plus
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	1,89E+00
GWP-total, A1-A3 (kgCO ₂ e)	1,90E+00
Secondary material, inputs (%)	0
Secondary material, outputs (%)	0
Total energy use, A1-A3 (kWh)	1,04
Net freshwater use, A1-A3 (m ³)	0

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

The Hilti Group supplies the worldwide construction and energy industries with technologically leading products, systems, software and services. With about 34,000 team members in over 120 countries the company stands for direct customer relationships, quality and innovation. The headquarters of the Hilti Group have been located in Schaan, Liechtenstein, since its founding in 1941. The company is privately owned by the Martin Hilti Family Trust, which ensures its long-term continuity. The Hilti Group's purpose is making construction better, based on a passionate and inclusive global team and a caring and performance-oriented culture.

PRODUCT DESCRIPTION

Hilti CP 679A Plus is an ablative fire protection cable coating that can be applied with a brush or by airless sprayers. In case of fire, the product releases crystal-bound water and absorbs heat. This allows temperature reduction through an endothermic reaction to prevent the propagation of fire along the cable. Hence, CP 679A Plus offers effective and economical cable fire protection that consist of polymer dispersion, aluminum hydroxide, silicate fibers, titanium dioxide, dispersing agents and preservative. It is important to adhere to the following application methods to comply with the independent fire test evidence that supports the use of CP 679A Plus. The correct thickness, application and finish of the product must be assured.

The product density is 1410 ± 70 g/L.

VOC Tests

CP 679A Plus meets the requirements for low-emitting Paints and Coatings in credit EQc2 of the LEEDv4 and LEEDv4.1 Rating System.

It has been tested and fulfils requirements for VOC Emissions according to California Department of Public Health (CDPH) Standard Method v1.2-2017 and VOC Content according to SCAQMD Rule 1168 (fulfilling VOC Limit Value

for "All Other Architectural Sealants) (eco-Institut Test Reports: 58112-B001-CS-L dated 2023-07-11 and 58112-B001L dated 2023-08-02).

CP 679A Plus has been tested and fulfils the requirements according to AgBB Scheme 2021 (Test Report No. 58112-A001-AgBB-L) from 02.08.2023.

CP 679A Plus has been tested and fulfils the requirements for the following Approval Certification:

DNV Type Approval Certificate No. TAE00004T8

DNV Rules for classification – Ships, offshore units and high speed and light craft and has been tested and fulfils tests according to IEC 60332-3-22

Category A: 2018 for 60 minutes and DIN EN 60332-3-22 / VDE 0482-332-3-22

European Technical Assessment ETA-23/0499 of 2023/06/29 issued in accordance with Regulation No 305/2011 on the basis of EAD 350454-00-1104: Firestopping and fire sealing products – Penetration Seals.

Reaction to fire: CP 679A Plus is classified as Euroclass E in accordance with EN 13501-1 and delegated regulation 2016/364.

Resistance to fire: CP 679A Plus fulfils Fire Resistance Class EI 60, EI 90 and E90 in accordance with EN 13501-2.

FM Approved Certificate of Compliance Approvals Class: 3971

Further information can be found at www.hilti.group

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	Germany
Minerals	40,0	Germany
Fossil materials	60,0	Germany
Bio-based materials	0	Germany

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

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

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of CP 679A Plus
Mass per declared unit	1 kg
Functional unit	-
Reference service life	10

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	MND	MND	MND	MND	MND	MND	MND	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 = MND. 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 not included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The product consists of a proprietary chemical formulation contained in a high-density polyethylene (HDPE) plastic pail with lid. The formulation is

composed of various raw materials, including polymer dispersions, dispersing agents and preservatives, that have been weight according to the formulation and mixed together where each contributes to the product’s performance, stability, and fire-resistant or structural properties. The materials are sourced from various suppliers across Germany, with an estimated average transport distance of 400 km by truck before arriving at Hilti’s production facility. At this site, core manufacturing processes—including formulation blending, process integration, and final packaging—are carried out. No secondary materials or fuels are used throughout the manufacturing process. The finished product is temporarily stored in bulk at Hilti’s distribution center before final delivery. It is also assumed that there are about 1% of material losses during the installation (A5). After the use phase, the product is expected to be disposed of in a landfill, as it will be coated together with cable.

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.

Transportation distance is defined according to the PCR. A sales-weighted average transport distance from the production plant in Germany to a representative place of installation in each sales region is used for A4 (equating to 884,935 km by truck and 4210,1 km by container ship for this product due to its global distribution). Vehicle capacity utilization volume factor is assumed to be 1 which means full load. In reality, it may vary but as role of transportation emissions in total results is small, the variety in load is assumed to be negligible. To be conservative, empty returns are included in this study as implemented through an average load factor in the Ecoinvent transport datapoints. Transportation does not cause losses as products are packaged properly. Also, volume capacity utilization factor is assumed to be 1 for the nested packaged products. Disposal of the packaging, including

some residual product within, is accounted for in A5. Emissions due to installation are assumed to be negligible as they are typically performed using simple manual tools which do not consume energy.

PRODUCT USE AND MAINTENANCE (B1-B7)

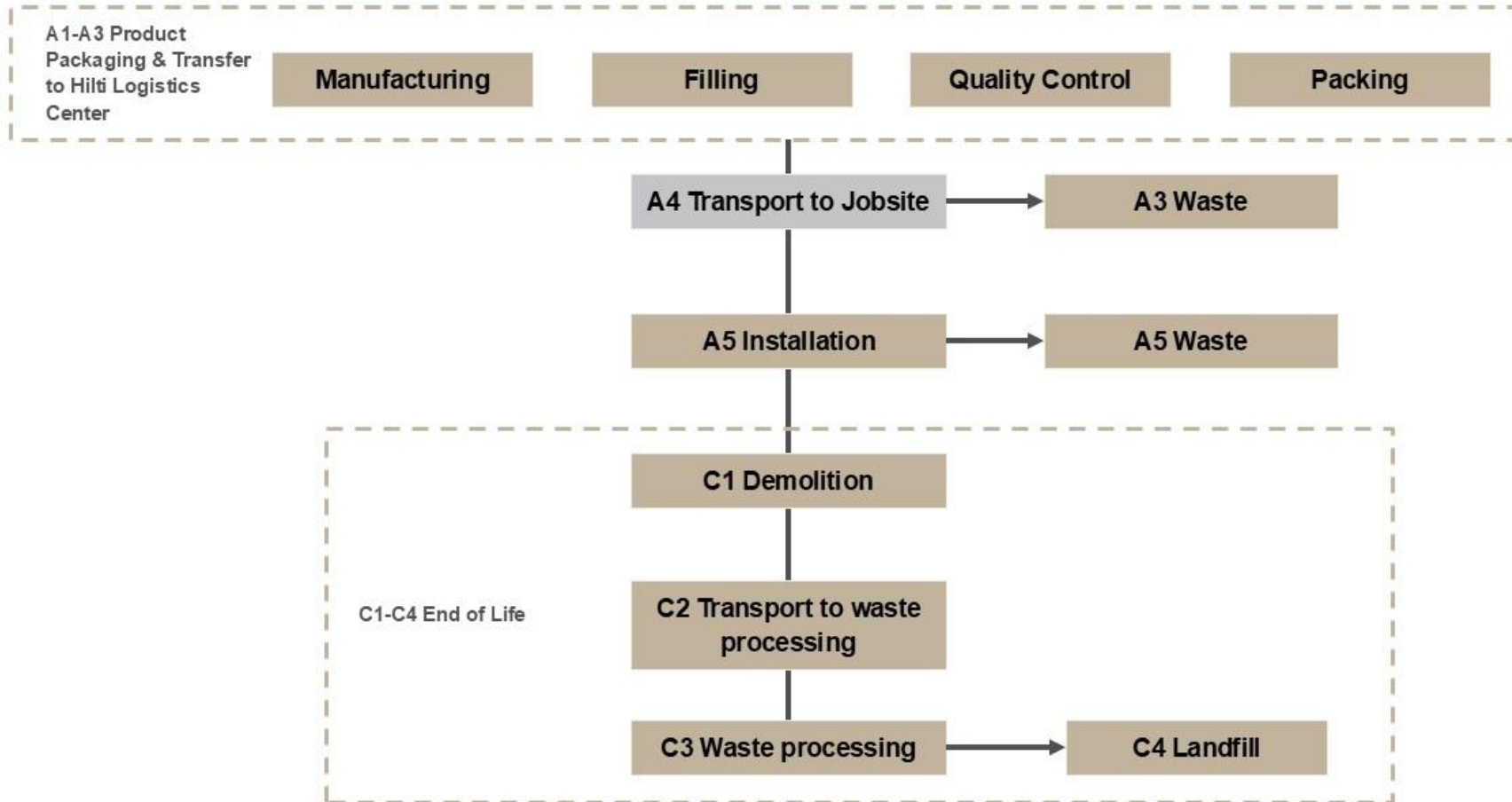
This EPD does not cover the use phase.

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

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy and natural resources in demolition process is assumed to be negligible. As a wet-applied chemical formulation which cannot be economically separated from the concrete to which it is applied, it is assumed that the product must be disposed of entirely in landfill. Transportation distance to landfill is assumed as 50 km and the transportation method is assumed to be lorry (C2). Generic data for recycling and reuse rates are applied based on global data availability from Ecoinvent.

MANUFACTURING PROCESS



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

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

This LCA study includes the provision of all materials, transportation, and emission flows, and end-of-life processing of product. All industrial processes from raw material acquisition, pre-processing, production, product distribution, installation and end-of-life management are included. Due to lack of data, no ancillary materials data are included in the model, but they do not exceed the 1% cut-off criteria. These include materials which are used in the product manufacturing only in very small amounts and have a negligible impact on the emissions of the product. The production of capital equipment, construction activities, infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data

as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging material	No allocation
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

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

This EPD is product and factory specific.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. 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	1,65E+00	4,53E-02	2,04E-01	1,90E+00	2,26E-01	8,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,39E-03	0,00E+00	6,24E-03	-2,83E-02
GWP – fossil	kg CO ₂ e	1,64E+00	4,53E-02	2,04E-01	1,89E+00	2,26E-01	8,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,38E-03	0,00E+00	6,24E-03	-2,84E-02
GWP – biogenic	kg CO ₂ e	5,41E-03	1,03E-05	2,09E-04	5,63E-03	4,29E-05	-2,50E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,22E-06	0,00E+00	-1,99E-06	1,69E-04
GWP – LULUC	kg CO ₂ e	1,56E-03	2,03E-05	1,80E-04	1,76E-03	8,83E-05	2,09E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,41E-06	0,00E+00	3,57E-06	-2,30E-05
Ozone depletion pot.	kg CFC ₋₁₁ e	1,50E-07	6,69E-10	6,90E-09	1,58E-07	4,26E-09	1,65E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,95E-11	0,00E+00	1,81E-10	-1,00E-09
Acidification potential	mol H ⁺ e	7,22E-03	1,54E-04	7,37E-04	8,11E-03	2,32E-03	1,20E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,84E-05	0,00E+00	4,43E-05	-1,17E-04
EP-freshwater ²⁾	kg Pe	2,52E-04	3,53E-06	4,99E-05	3,06E-04	1,34E-05	3,68E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,19E-07	0,00E+00	5,13E-07	-8,85E-06
EP-marine	kg Ne	1,38E-03	5,08E-05	1,47E-04	1,57E-03	7,45E-04	3,43E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-06	0,00E+00	1,69E-05	-1,95E-05
EP-terrestrial	mol Ne	1,53E-02	5,52E-04	1,51E-03	1,73E-02	8,19E-03	3,23E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,56E-05	0,00E+00	1,84E-04	-2,02E-04
POCP (“smog”) ³⁾	kg NMVOCe	5,61E-03	2,28E-04	9,43E-04	6,78E-03	2,49E-03	1,12E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,70E-05	0,00E+00	6,60E-05	-1,35E-04
ADP-minerals & metals ⁴⁾	kg Sbe	0,00E+00	1,26E-07	1,24E-06	1,37E-06	6,33E-07	3,63E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,50E-08	0,00E+00	9,92E-09	-1,68E-07
ADP-fossil resources	MJ	0,00E+00	6,57E-01	5,05E+00	5,71E+00	3,10E+00	1,17E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,81E-02	0,00E+00	1,53E-01	-7,64E-01
Water use ⁵⁾	m ³ e depr.	6,16E+01	3,25E-03	5,94E-02	6,16E+01	1,40E-02	6,18E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,86E-04	0,00E+00	4,42E-04	-7,71E-03

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	5,81E-08	4,54E-09	6,69E-09	6,93E-08	2,05E-08	1,10E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,39E-10	0,00E+00	1,01E-09	-9,16E-10
Ionizing radiation ⁶⁾	kBq 11235e	5,68E-02	5,73E-04	1,62E-02	7,36E-02	3,48E-03	8,82E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,80E-05	0,00E+00	9,63E-05	-3,97E-03
Ecotoxicity (freshwater)	CTUe	2,75E+01	9,30E-02	5,05E-01	2,81E+01	3,75E-01	3,13E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,10E-02	0,00E+00	1,29E-02	-5,99E-02
Human toxicity, cancer	CTUh	2,40E-09	7,48E-12	4,26E-11	2,45E-09	7,79E-11	2,88E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,88E-13	0,00E+00	1,15E-12	-5,55E-12
Human tox. non-cancer	CTUh	4,75E-08	4,26E-10	1,52E-09	4,94E-08	2,16E-09	6,47E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,06E-11	0,00E+00	2,64E-11	-2,24E-10
SQP ⁷⁾	-	4,72E+00	6,62E-01	8,72E-01	6,26E+00	1,55E+00	1,15E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,87E-02	0,00E+00	3,02E-01	-9,97E-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	0,00E+00	9,01E-03	2,49E-01	2,58E-01	4,80E-02	4,80E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,07E-03	0,00E+00	1,48E-03	-4,36E-02
Renew. PER as material	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
Total use of renew. PER	MJ	0,00E+00	9,01E-03	2,49E-01	2,58E-01	4,80E-02	4,80E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,07E-03	0,00E+00	1,48E-03	-4,36E-02
Non-re. PER as energy	MJ	0,00E+00	6,58E-01	2,83E+00	3,49E+00	3,10E+00	-2,01E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,81E-02	0,00E+00	1,53E-01	-7,64E-01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	2,22E+00	2,22E+00	0,00E+00	-2,22E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,60E-01
Total use of non-re. PER	MJ	0,00E+00	6,58E-01	5,05E+00	5,71E+00	3,10E+00	-4,23E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,81E-02	0,00E+00	1,53E-01	-4,04E-01
Secondary materials	kg	0,00E+00	2,80E-04	9,43E-04	1,22E-03	1,43E-03	1,10E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,32E-05	0,00E+00	3,85E-05	8,77E-03
Renew. secondary fuels	MJ	0,00E+00	3,55E-06	6,42E-04	6,45E-04	1,52E-05	7,29E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,22E-07	0,00E+00	7,97E-07	-7,63E-07
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	0,00E+00	9,72E-05	1,51E-03	1,61E-03	3,79E-04	-3,64E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,15E-05	0,00E+00	1,59E-04	-2,40E-04

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	0,00E+00	1,11E-03	1,09E-02	1,20E-02	4,37E-03	8,85E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,32E-04	0,00E+00	1,69E-04	-1,36E-03
Non-hazardous waste	kg	0,00E+00	2,06E-02	1,27E+00	1,29E+00	8,66E-02	1,01E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,45E-03	0,00E+00	3,87E-03	-2,03E-01
Radioactive waste	kg	0,00E+00	1,40E-07	4,04E-06	4,18E-06	8,64E-07	7,87E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,67E-08	0,00E+00	2,35E-08	-1,01E-06

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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,10E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	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	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	3,10E-01	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	1,30E-01	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	1,80E-01	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	0,00E+00	4,51E-02	2,02E-01	2,47E-01	2,24E-01	6,91E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,35E-03	0,00E+00	6,19E-03	-2,79E-02
Ozone depletion Pot.	kg CFC ₋₁₁ e	0,00E+00	5,34E-10	5,84E-09	6,37E-09	3,39E-09	1,25E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,34E-11	0,00E+00	1,44E-10	-8,14E-10
Acidification	kg SO ₂ e	0,00E+00	1,18E-04	6,09E-04	7,27E-04	1,78E-03	3,69E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,40E-05	0,00E+00	3,28E-05	-9,80E-05
Eutrophication	kg PO ₄ ³ e	0,00E+00	2,87E-05	3,39E-04	3,68E-04	2,99E-04	1,04E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,41E-06	0,00E+00	1,04E-05	-3,46E-05
POCP (“smog”)	kg C ₂ H ₄ e	0,00E+00	1,05E-05	7,07E-05	8,12E-05	1,13E-04	3,13E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,25E-06	0,00E+00	3,10E-06	-1,03E-05
ADP-elements	kg Sbe	0,00E+00	1,23E-07	1,23E-06	1,35E-06	6,19E-07	3,54E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,46E-08	0,00E+00	9,72E-09	-1,66E-07
ADP-fossil	MJ	0,00E+00	6,48E-01	4,78E+00	5,43E+00	3,05E+00	1,11E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,70E-02	0,00E+00	1,52E-01	-6,94E-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	1,64E+00	4,53E-02	2,04E-01	1,89E+00	2,26E-01	8,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,38E-03	0,00E+00	6,25E-03	-2,84E-02

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

SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity, Germany, residual mix, direct GWP only, 2023 (Association of Issuing Bodies)
Electricity CO2e / kWh	0,72
District heating data source and quality	-
District heating CO2e / kWh	-

Transport scenario documentation A4

Scenario parameter	Value
Fuel and vehicle type. Eg, electric truck, diesel powered truck	Diesel powered truck and container ship
Average transport distance, km	884,935km diesel powered truck and 4210,1km container ship
Capacity utilization (including empty return) %	50
Bulk density of transported products	-
Volume capacity utilization factor	1

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

Sergio Ballen Zamora as an authorized verifier for EPD Hub

31.08.2025

