Tour Elithis, France
ALUCOBOND® solid Black + naturAL Line, Brushed
XTU Architects
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ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

ALUCOBOND® A2 circular
3A Composites GmbH

EPD HUB, HUB-5372
Published on 13.02.2026, last updated on 13.02.2026, valid until 12.02.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	3A Composites GmbH
Address	Alusingenplatz 1 78224 Singen Germany
Contact details	info@alucobond.com
Website	https://www.alucobond.com

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
Parent EPD number	HUB-2025
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Martin Oddershede, JJW Architects
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ 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	ALUCOBOND® A2 circular
Place(s) of raw material origin	EU
Place of production	Singen (Hohentwiel), Germany
Period for data	Calendar year 2024
Averaging in EPD	No grouping
A1-A3 Specific data (%)	30,6

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m^2
Declared unit mass	7,6 kg
Mass of packaging	1,17 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	7,69
GWP-total, A1-A3 ($kgCO_2e$)	6,05
Secondary material, inputs (%)	17,3
Secondary material, outputs (%)	37,2
Total energy use, A1-A3 (kWh)	41,2
Net freshwater use, A1-A3 (m^3)	0,07

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

3A Composites Europe, the manufacturer behind ALUCOBOND®, is a leading provider of aluminium composite materials. They have been at the forefront of metal facades for over 55 years, offering products known for their flatness, formability, durability, and ease of fabrication. ALUCOBOND® materials are utilized in both exterior and interior architectural applications, known for their design flexibility and aesthetic appeal. The company operates with a commitment to sustainability and innovation, providing a wide range of colours and finishes to inspire and realize architectural visions. ALUCOBOND® for the European market is 100% produced in Germany.

The company's integrated management system provides an important framework for implementing sustainability aspects in their business activities. This is reflected in their externally certified health, safety, energy, environmental and quality management systems (ISO 45001, ISO 50001, ISO 14001, ISO 9001).

PRODUCT DESCRIPTION

ALUCOBOND® A2 is a composite panel featuring two aluminium cover sheets with a non-combustible, mineral-filled core which stands for sustainable building quality and the highest design standards. It meets all relevant standards worldwide. The façade material is characterized by its precise flatness, surface and colour variety as well as excellent formability. ALUCOBOND® A2 is easy to process, break-proof, impact-resistant, weather-resistant, and, most notably, non-combustible.
Aluminium is an excellent lightweight construction material which requires a high degree of primary energy during initial production. For ALUCOBOND® circular high-quality recycled aluminium is used, that is reducing the CO2 emissions significantly compared to conventional process. The cover sheets contain a high recycled content with a certified low carbon footprint below 3kg CO2 eq./kg Al, sourced from post-industrial aluminium waste. In accordance with „European Aluminium" recommendations we use the mass balance approach for the calculation of CO2 footprint. ALUCOBOND® circular is suitable for very long usage periods in the industry, transport and construction areas.
The ALUCOBOND® A2 core material mainly consists of mineral components which use a small amount of primary energy and can still be 100 % recycled and returned to the reusable material cycle. The flameproofing of the core material is exclusively realized using mineral additives.

Further information can be found at https://www.alucobond.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	35,5	EU
Minerals	56,6	EU
Fossil materials	7,9	EU
Bio-based materials	<1	EU

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,46

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m^2
Mass per declared unit	7,6 kg
Functional unit	-
Reference service life	60

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	ND	ND	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.

ALUCOBOND® Circular A2 consists of two factory coil-coated aluminium cover sheets and a mineral-filled polymer core, laminated in a continuous process. Edge trim and internal offcuts are handled internally. The Circular line increases recycled aluminium content in the cover sheets. Packaging consists of plastic film and standard EU pallets.
The use of green energy 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.

Please note that while this module has not been included within the system boundaries, the packaging (in module A3) and the waste produced (in modules C3-C4) have been considered.

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.

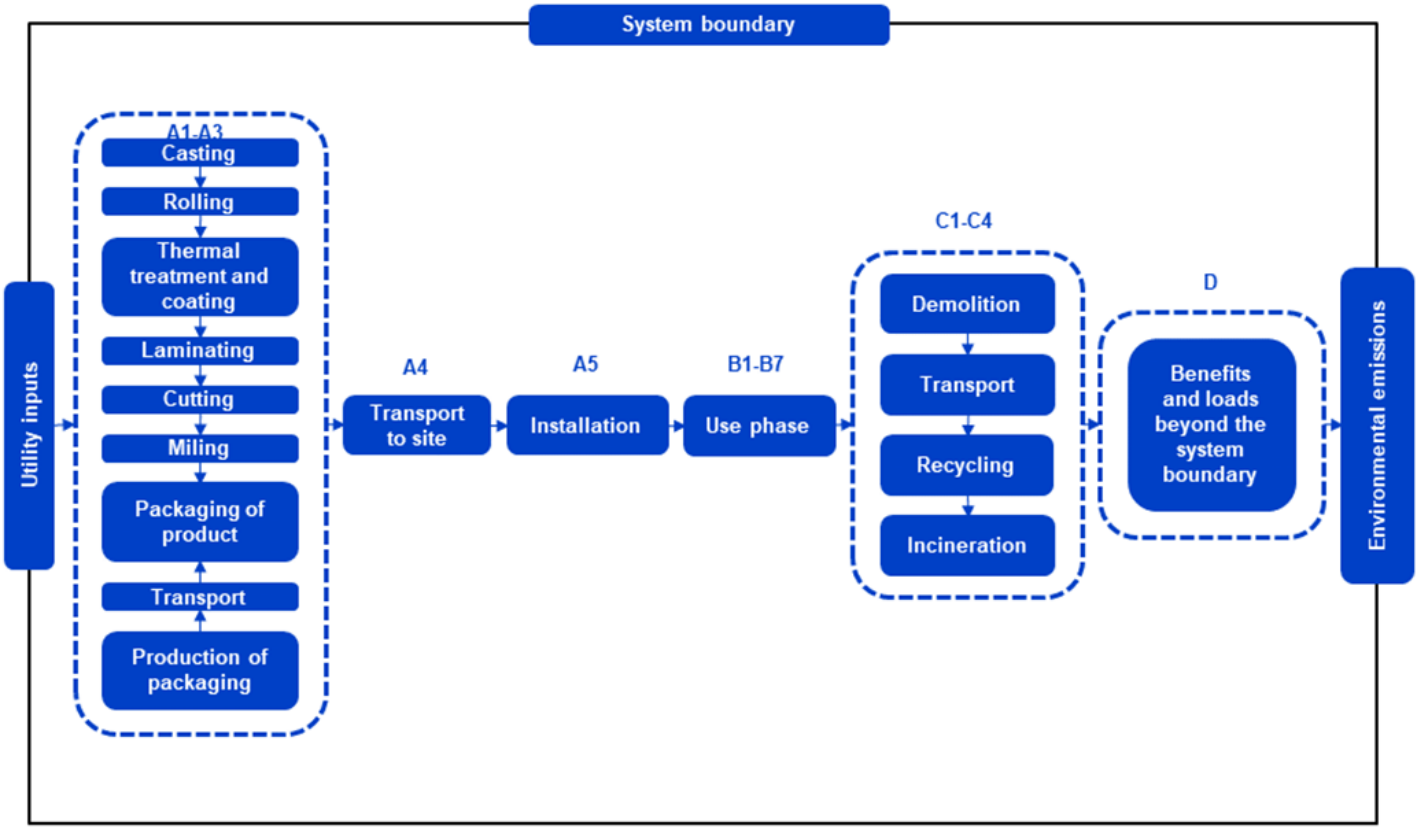
PRODUCT END OF LIFE (C1-C4, D)

In C1 (deconstruction), disassembly is done manually with minimal use of tools. An average energy consumption of 0.01 kWh per kilogram is assumed, based on Bozdağ and Seçer (2007).

C2 (transport) models the transport of dismantled ceilings and packaging materials to regional treatment or disposal facilities by truck, using standard European transport assumptions.

Façade elements and flat panels can often be removed non-destructively, depending on the mounting system. This can be done by unscrewing them or drilling out the rivets. Dismantled products, if undamaged, can be reused according to their original designated purpose. When sorted correctly, these elements can be shredded to separate the aluminium and the core material, both of which can then be recycled. The core material also supports the smelting process if recycling only the aluminium. Aluminium composite panels are accepted by scrap dealers among other recycling options. The product contains combustible polymer-based materials (e.g. PE, LDPE films and adhesives). In accordance with EN 15804+A2, the energy content of these materials is accounted for as “energy as material” and is balanced at end-of-life. Therefore, non-zero values for renewable and non-renewable primary energy as raw material occur in A1 – A3 and are offset in the end-of-life stages.
End-of-life treatment shares (C3 and C4) are defined per material in the LCA model and reflect current European waste management practice, with combustible polymer fractions predominantly treated by incineration with energy recovery and residual fractions disposed.
The scenarios applied for C1 – C4 and Module D are currently in use, technologically representative, and considered one of the most likely end-of-life scenarios for the product in a European context.

SYSTEM DIAGRAM



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

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

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

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 with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

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

Data type	Allocation
Raw materials	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

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	0

This EPD is product and factory specific.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using EPD Hub V3 and EPD System Verification 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_2e	5,43E+00	3,00E-01	3,14E-01	6,05E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,74E-02	1,15E-01	2,35E+00	1,05E+00	-2,11E-01
GWP – fossil	kg CO_2e	5,40E+00	3,00E-01	1,99E+00	7,69E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,74E-02	1,15E-01	4,99E-01	4,38E-02	-3,67E-01
GWP – biogenic	kg CO_2e	0,00E+00	0,00E+00	-1,68E+00	-1,68E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,80E-06	2,61E-05	1,85E+00	1,01E+00	1,62E-01
GWP – LULUC	kg CO_2e	3,40E-02	1,35E-04	3,06E-03	3,71E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,81E-06	5,16E-05	9,46E-05	3,05E-05	-5,83E-03
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	3,40E-07	4,42E-09	6,78E-09	3,51E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,19E-10	1,70E-09	1,05E-09	1,09E-09	-5,67E-09
Acidification potential	mol H^+e	3,06E-02	1,03E-03	4,71E-03	3,63E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,47E-04	3,93E-04	1,28E-03	3,14E-04	-2,47E-03
EP-freshwater[2)]	kg Pe	3,05E-04	2,37E-05	1,81E-02	1,85E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,91E-07	8,98E-06	4,38E-05	1,76E-05	-1,18E-04
EP-marine	kg Ne	2,84E-02	3,38E-04	1,30E-03	3,00E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,15E-04	1,29E-04	1,22E-03	2,03E-04	-2,93E-04
EP-terrestrial	mol Ne	5,79E-02	3,68E-03	1,39E-02	7,54E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,26E-03	1,41E-03	4,78E-03	1,17E-03	-2,97E-03
POCP ("smog")[3)]	kg NMVOCe	1,83E-02	1,51E-03	4,71E-03	2,45E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,75E-04	5,80E-04	1,42E-03	4,14E-04	-1,35E-03
ADP-minerals & metals[4)]	kg Sbe	2,29E-05	8,36E-07	1,20E-02	1,20E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	9,82E-09	3,22E-07	4,10E-06	8,13E-08	-1,08E-06
ADP-fossil resources	MJ	8,90E+01	4,35E+00	2,86E+01	1,22E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,58E-01	1,67E+00	1,08E+00	9,39E-01	-5,27E+00
Water use[5)]	m^3e depr.	5,32E+02	2,18E-02	1,08E+00	5,33E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,95E-04	8,27E-03	4,63E-02	5,81E-03	-2,48E-01

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	2,50E-05	3,00E-08	4,88E-08	2,51E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,03E-09	1,15E-08	1,88E-07	6,33E-09	-2,88E-08
Ionizing radiation[6)]	kBq U235e	4,71E-01	4,02E-03	1,58E-01	6,32E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,59E-04	1,46E-03	4,45E-03	8,42E-04	-4,12E-02
Ecotoxicity (freshwater)	CTUe	9,04E+01	6,17E-01	2,24E+00	9,33E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,97E-02	2,37E-01	3,68E+00	4,96E+01	-8,83E-01
Human toxicity, cancer	CTUh	7,95E-09	4,96E-11	1,91E-09	9,91E-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,82E-12	1,90E-11	1,29E-09	1,47E-11	-3,52E-10
Human tox. non-cancer	CTUh	1,03E-07	2,81E-09	4,21E-09	1,10E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,46E-11	1,08E-09	1,12E-08	1,55E-09	-3,27E-09
SQP[7)]	-	1,04E+01	4,37E+00	1,41E+02	1,56E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,51E-02	1,69E+00	1,94E+00	1,89E+00	-9,30E-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	2,11E+01	6,21E-02	1,71E+01	3,82E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,27E-03	2,29E-02	-9,17E+00	-4,39E+00	8,81E+00
Renew. PER as material	MJ	3,55E-01	0,00E+00	1,47E+01	1,51E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-9,12E+00	-5,59E+00	2,64E+00
Total use of renew. PER	MJ	2,15E+01	6,21E-02	3,18E+01	5,33E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,27E-03	2,29E-02	-1,83E+01	-9,98E+00	1,15E+01
Non-re. PER as energy	MJ	8,07E+01	4,35E+00	2,44E+01	1,09E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,58E-01	1,67E+00	-1,76E+01	1,95E-01	-5,27E+00
Non-re. PER as material	MJ	8,58E+00	0,00E+00	3,96E+00	1,25E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-4,42E+00	-1,17E+00	1,19E+00
Total use of non-re. PER	MJ	8,92E+01	4,35E+00	2,84E+01	1,22E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,58E-01	1,67E+00	-2,20E+01	-9,74E-01	-4,08E+00
Secondary materials	kg	1,32E+00	1,87E-03	5,80E-02	1,38E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,49E-04	7,13E-04	1,27E-03	2,81E-04	6,36E-02
Renew. secondary fuels	MJ	3,15E-03	2,35E-05	5,08E-01	5,12E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,89E-07	9,05E-06	4,48E-05	5,32E-06	-1,45E-05
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	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	5,64E-02	6,51E-04	8,46E-03	6,55E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,37E-05	2,47E-04	6,91E-04	-4,09E-03	-5,64E-03

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	1,13E+00	7,44E-03	1,28E-01	1,26E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,99E-04	2,84E-03	1,34E-02	2,01E-03	-9,09E-02
Non-hazardous waste	kg	7,87E+00	1,38E-01	3,16E+00	1,12E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,44E-03	5,25E-02	1,33E+00	6,41E+00	-1,10E+00
Radioactive waste	kg	6,23E-04	9,87E-07	9,25E-05	7,17E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,89E-08	3,57E-07	1,11E-06	2,06E-07	-9,66E-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	ND	ND	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	7,96E-03	0,00E+00	0,00E+00	7,96E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	2,83E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	2,41E-01	0,00E+00	0,00E+00	2,41E-01	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	3,01E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,27E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,75E+00	0,00E+00	0,00E+00

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	5,43E+00	3,00E-01	1,99E+00	7,73E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,74E-02	1,15E-01	4,99E-01	4,38E-02	-3,73E-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. Natural gas mix (2000), Germany, ProBas, 0.0089 kgCO2e/MJ
2. Electricity Germany, Germany, Ecoinvent, 0.12 kgCO2e/MJ

EOL scenario documentation - C1-C4 (Data source)

1. Diesel, burned in building machine, Ecoinvent, 0.076 kWh
2. Market for waste plastic, mixture, Ecoinvent, 0.53 kg
3. Treatment of waste mineral wool, inert material landfill, Ecoinvent, 3.76 kg
4. Treatment of inert waste, sanitary landfill, Ecoinvent, 0.7 kg
5. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 2.52 kg
6. Treatment of waste aluminium, sanitary landfill, Ecoinvent, 0.28 kg
7. Wood chipping, industrial residual wood, stationary electric chipper, Ecoinvent, Materials for recycling, 0.29 kg
8. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, 0.55 kg
9. Exported Energy: Electricity, Ecoinvent, 1.089 MJ
10. Exported Energy: Electricity, Ecoinvent, 0.18 MJ
11. Exported Energy: Thermal, Ecoinvent, 1.496 MJ
12. Exported Energy: Thermal, Ecoinvent, 0.25 MJ
13. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 0.26 kg
14. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.016 kg
15. Treatment of waste polypropylene, municipal incineration, Ecoinvent, 0.035 kg
16. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, 0.019 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Transport distance to end-of-life treatment: 50 km by truck (EURO6)

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
13.02.2026