

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

PULSA C6 Pins

ITW Construction Products / SPIT-Paslode



EPD HUB, HUB-3171

Published on 11.04.2025, last updated on 11.04.2025, valid until 10.04.2030

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.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	ITW Construction Products / SPIT-Paslode
Address	150, avenue de Lyon; 26500-BOURG-LES-VALENCE, France
Contact details	epd@itwcp.com
Website	https://www.spitpaslode.com/

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 1.1, 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	ITW Construction Products / SPIT-Paslode
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Lucas Rodriguez, as an authorized verifier acting for EPD Hub Limited.

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	PULSA C6 Pins
Additional labels	SPIT
Product reference	-
Place of production	Bourg-lès-Valence, France
Period for data	Calendar year 2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	Not applicable %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1kg
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	2.99
GWP-total, A1-A3 (kgCO ₂ e)	2.70
Secondary material, inputs (%)	78.7
Secondary material, outputs (%)	86.3
Total energy use, A1-A3 (kWh)	18
Net freshwater use, A1-A3 (m ³)	0.05

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Since ITW's founding more than 100 years ago, it has become one of the world's leading diversified manufacturers of specialized industrial equipment, consumables, and related service businesses. The foundation of our company is the ITW Business Model, a unique and differentiated set of core capabilities and business practices that comprises three key elements: ITW's 80/20 Front to Back Process, customer-back innovation and a decentralized entrepreneurial culture. At ITW Construction Products we are suppliers of innovative, engineered fastening systems and related consumables and software. These products are uniquely specified for a variety of materials, including wood, concrete and steel.

PRODUCT DESCRIPTION

The declared product is a steel pins used for fixing elements in soft concrete, bricks and blocks. It is considered as a standard pin. These pins can cover multiple applications, especially in soft concrete / floor or wall fixing such as drywall metal tracks, L channels, electrical accessories, wall ties, wooden plate to concrete, metal brackets. It covers a wide range of lengths; from 20mm up to 40 mm for various applications. Adapted for use with Pulsa 27, Pulsa 40, Pulsa 65 or Pulsa 800 tools. The product is manufactured in compliance with standard 9001 ISO and 14001 ISO. The product is manufactured by SPIT. The production plant is located at BOURG-LES-VALENCE, FRANCE.

Further information can be found at <https://www.spitpaslode.com/>.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	87	Europe
Minerals	-	-
Fossil materials	13	Europe
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0.0027
Biogenic carbon content in packaging, kg C	0.079

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	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 included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The environmental impacts considered for the product stage cover the provision of raw materials used in production, the production process as well

as packaging materials and other ancillary materials, such as oils and washing detergent used by machines. The study also considers the material losses occurring and the handling of waste during the manufacturing processes. We have considered carbon steel and plastic collation as primary raw materials of final product. The primary products are sourced from the European Union. Transport is by lorry. The steel coils are delivered to the manufacturers site. The coils are cut and shaped to form the product in its final size and shape. The steel product is zinc coated offsite and is then assembled with plastic collation in the factory. The finished product is packed with fuel cells and prepared for distribution. The manufacturing process requires electricity and natural gas for powering the production equipment. Wastewater treatment is also considered. Wooden pallets, cardboard, and packaging film are used as packaging materials for transporting the finished product to the dedicated marketplaces.

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 transportation is calculated based on the distance traveled by lorry and or ship from the French plant to all dealers through different warehouses in UE, United Kingdom of Great Britain and Northern Ireland, Algeria, Andorra, Egypt, Israel, Luxembourg, Saudi Arabia, Switzerland, Turkey.

PRODUCT USE AND MAINTENANCE (B1-B7)

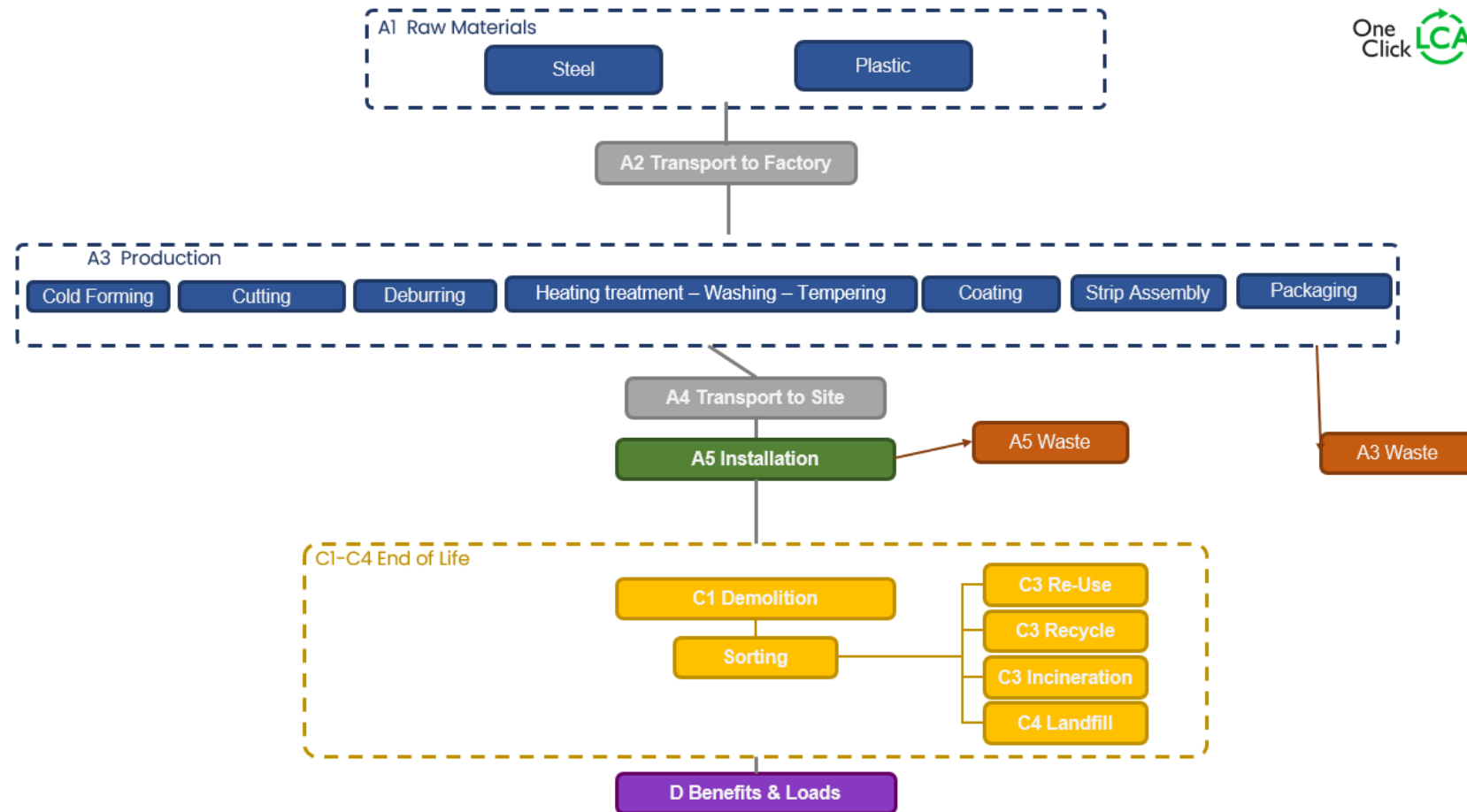
The use phase is not relevant for the life cycle emissions of this product and is, therefore, not accounted into the assessment.

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

PRODUCT END OF LIFE (C1-C4, D)

The product is dismantled by a power tool and energy use is estimated to be the same as in installation. It is assumed that the steel waste is collected separately and transported to the waste treatment facility. Transportation distance to waste treatment plant is assumed to be 100 km and the transportation method is assumed to be lorry (C2). Module C3 accounts for energy and resource inputs for sorting and treating of steel for recycling. Landfilled material is included in module C4. Due to the material recovery potential of the product and material and energy recovery potential of its packaging, recycled raw materials lead to avoided virgin material production and the energy recovered from incineration replaces electricity and heat from primary sources. Benefits and loads from incineration and recycling are included in Module D. For EoL, transport is assumed to be 50km according to Eurostat & PSR-0014 v2 (2023)

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.

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

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	Not applicable %

The raw material delivered to the factory is carbon steel drawn wire in coil of 650kg in diameter 2,6mm.

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

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

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	1.64E+00	9.55E-02	9.57E-01	2.70E+00	2.95E-01	4.84E-01	MND	MND	MND	MND	MND	MND	MND	3.61E-03	9.91E-04	2.54E-02	9.31E-02	-1.55E+00
GWP – fossil	kg CO ₂ e	1.65E+00	9.54E-02	1.24E+00	2.99E+00	2.95E-01	9.44E-03	MND	MND	MND	MND	MND	MND	MND	3.60E-03	9.90E-04	1.81E-02	9.18E-02	-1.40E+00
GWP – biogenic	kg CO ₂ e	-8.64E-03	0.00E+00	-2.91E-01	-3.00E-01	0.00E+00	4.74E-01	MND	MND	MND	MND	MND	MND	MND	3.68E-07	2.24E-07	7.32E-03	1.23E-03	-1.42E-01
GWP – LULUC	kg CO ₂ e	1.92E-03	4.27E-05	7.65E-03	9.61E-03	1.32E-04	1.18E-05	MND	MND	MND	MND	MND	MND	MND	3.69E-07	4.43E-07	2.26E-05	1.14E-06	-6.81E-03
Ozone depletion pot.	kg CFC-11e	5.14E-08	1.41E-09	2.85E-08	8.13E-08	4.35E-09	1.19E-10	MND	MND	MND	MND	MND	MND	MND	5.52E-11	1.46E-11	1.09E-10	5.16E-11	-5.35E-09
Acidification potential	mol H ⁺ e	8.41E-03	3.25E-04	6.62E-03	1.54E-02	1.01E-03	4.20E-05	MND	MND	MND	MND	MND	MND	MND	3.25E-05	3.38E-06	1.15E-04	2.19E-05	-7.02E-03
EP-freshwater ²⁾	kg Pe	1.23E-04	7.43E-06	9.74E-04	1.10E-03	2.30E-05	3.23E-06	MND	MND	MND	MND	MND	MND	MND	1.04E-07	7.71E-08	7.49E-06	2.46E-07	-6.38E-04
EP-marine	kg Ne	2.00E-03	1.07E-04	1.25E-03	3.36E-03	3.30E-04	4.43E-05	MND	MND	MND	MND	MND	MND	MND	1.51E-05	1.11E-06	5.65E-05	1.49E-05	-1.37E-03
EP-terrestrial	mol Ne	2.09E-02	1.16E-03	1.08E-02	3.28E-02	3.60E-03	1.30E-04	MND	MND	MND	MND	MND	MND	MND	1.65E-04	1.21E-05	3.34E-04	1.02E-04	-1.47E-02
POCP (“smog”) ³⁾	kg NMVOCe	8.07E-03	4.80E-04	4.24E-03	1.28E-02	1.48E-03	4.53E-05	MND	MND	MND	MND	MND	MND	MND	4.93E-05	4.98E-06	1.08E-04	3.35E-05	-5.00E-03
ADP-minerals & metals ⁴⁾	kg Sbe	4.23E-05	2.66E-07	1.44E-05	5.70E-05	8.23E-07	5.63E-08	MND	MND	MND	MND	MND	MND	MND	1.29E-09	2.76E-09	3.53E-07	5.86E-09	-1.08E-05
ADP-fossil resources	MJ	2.88E+01	1.39E+00	3.34E+01	6.36E+01	4.28E+00	1.17E-01	MND	MND	MND	MND	MND	MND	MND	4.72E-02	1.44E-02	1.51E-01	4.07E-02	-1.23E+01
Water use ⁵⁾	m ³ e depr.	4.44E-01	6.84E-03	1.46E+00	1.91E+00	2.11E-02	3.18E-03	MND	MND	MND	MND	MND	MND	MND	1.18E-04	7.10E-05	3.40E-03	2.14E-03	-3.83E-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, PEF

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	3.29E-08	9.56E-09	3.19E-08	7.44E-08	2.95E-08	5.34E-10	MND	MND	MND	MND	MND	MND	MND	9.25E-10	9.91E-11	1.02E-08	2.73E-10	-1.09E-07
Ionizing radiation ⁶⁾	kBq I1235e	3.35E-02	1.21E-03	6.36E-01	6.71E-01	3.73E-03	1.44E-03	MND	MND	MND	MND	MND	MND	MND	2.09E-05	1.25E-05	7.38E-04	3.89E-05	2.59E-02
Ecotoxicity (freshwater)	CTUe	7.83E+00	1.96E-01	5.19E+00	1.32E+01	6.06E-01	1.48E-01	MND	MND	MND	MND	MND	MND	MND	2.60E-03	2.03E-03	4.73E-01	7.46E-01	-3.41E+00
Human toxicity, cancer	CTUh	3.73E-10	1.58E-11	4.53E-10	8.42E-10	4.87E-11	4.86E-12	MND	MND	MND	MND	MND	MND	MND	3.71E-13	1.63E-13	9.09E-11	4.13E-12	-5.87E-10
Human tox. non-cancer	CTUh	7.06E-09	8.97E-10	1.88E-08	2.67E-08	2.77E-09	2.59E-10	MND	MND	MND	MND	MND	MND	MND	5.87E-12	9.30E-12	8.63E-10	1.96E-10	-1.09E-08
SQP ⁷⁾	-	3.64E+00	1.39E+00	2.30E+01	2.80E+01	4.31E+00	7.39E-02	MND	MND	MND	MND	MND	MND	MND	3.30E-03	1.45E-02	6.58E-01	6.15E-02	-1.47E+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	3.67E+00	1.90E-02	8.51E+00	1.22E+01	5.87E-02	-2.78E+00	MND	MND	MND	MND	MND	MND	MND	2.99E-04	1.97E-04	2.06E-02	6.31E-04	-4.92E+00
Renew. PER as material	MJ	0.00E+00	0.00E+00	2.57E+00	2.57E+00	0.00E+00	-2.57E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.31E+00
Total use of renew. PER	MJ	3.67E+00	1.90E-02	1.11E+01	1.48E+01	5.87E-02	-5.35E+00	MND	MND	MND	MND	MND	MND	MND	2.99E-04	1.97E-04	2.06E-02	6.31E-04	-3.60E+00
Non-re. PER as energy	MJ	2.04E+01	1.39E+00	3.06E+01	5.25E+01	4.28E+00	8.65E-02	MND	MND	MND	MND	MND	MND	MND	4.72E-02	1.44E-02	-1.78E+00	-2.13E+00	-1.25E+01
Non-re. PER as material	MJ	0.00E+00	0.00E+00	1.86E+00	1.86E+00	0.00E+00	-3.66E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-6.67E+00
Total use of non-re. PER	MJ	2.04E+01	1.39E+00	3.25E+01	5.43E+01	4.28E+00	4.99E-02	MND	MND	MND	MND	MND	MND	MND	4.72E-02	1.44E-02	-1.78E+00	-2.13E+00	-1.92E+01
Secondary materials	kg	7.87E-01	5.90E-04	1.12E-01	8.99E-01	1.82E-03	9.38E-05	MND	MND	MND	MND	MND	MND	MND	1.96E-05	6.12E-06	3.65E-04	2.32E-05	6.97E-01
Renew. secondary fuels	MJ	2.23E-04	7.49E-06	1.31E-02	1.33E-02	2.31E-05	6.70E-07	MND	MND	MND	MND	MND	MND	MND	5.12E-08	7.77E-08	1.84E-05	2.35E-07	-1.00E-04
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	2.33E-03	2.33E-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
Use of net fresh water	m³	1.88E-02	2.05E-04	2.83E-02	4.72E-02	6.33E-04	-9.31E-05	MND	MND	MND	MND	MND	MND	MND	3.12E-06	2.12E-06	7.75E-05	-3.20E-05	-6.42E-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	4.00E-02	2.35E-03	6.73E-02	1.10E-01	7.25E-03	9.74E-04	MND	MND	MND	MND	MND	MND	MND	5.25E-05	2.43E-05	1.69E-03	7.44E-04	-4.66E-01
Non-hazardous waste	kg	2.61E+00	4.34E-02	4.79E+00	7.45E+00	1.34E-01	2.65E-01	MND	MND	MND	MND	MND	MND	MND	7.15E-04	4.51E-04	5.92E-02	1.32E-01	-3.25E+00
Radioactive waste	kg	1.42E-04	2.95E-07	5.36E-04	6.78E-04	9.13E-07	3.69E-07	MND	MND	MND	MND	MND	MND	MND	5.12E-09	3.06E-09	1.81E-07	9.62E-09	7.94E-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	2.19E-02	0.00E+00	0.00E+00	2.19E-02	0.00E+00	1.17E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	7.70E-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	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	9.26E-02	0.00E+00	0.00E+00
Exported energy	MJ	9.05E-04	0.00E+00	0.00E+00	9.05E-04	0.00E+00	1.86E-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	7.89E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	4.33E-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	1.08E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.44E+00	0.00E+00	0.00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

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	1.55E+00	9.49E-02	1.66E+00	3.31E+00	2.93E-01	2.22E-02	MND	MND	MND	MND	MND	MND	MND	3.59E-03	9.85E-04	3.97E-02	9.16E-02	-1.40E+00
Ozone depletion Pot.	kg CFC ₁₁ e	8.50E-08	1.12E-09	3.32E-08	1.19E-07	3.47E-09	9.71E-11	MND	MND	MND	MND	MND	MND	MND	4.37E-11	1.17E-11	9.18E-11	4.15E-11	-5.52E-09
Acidification	kg SO ₂ e	1.90E-02	2.49E-04	7.70E-03	2.69E-02	7.68E-04	3.26E-05	MND	MND	MND	MND	MND	MND	MND	2.29E-05	2.58E-06	9.04E-05	1.57E-05	-5.76E-03
Eutrophication	kg PO ₄ ³ e	1.48E-02	6.06E-05	1.09E-03	1.60E-02	1.87E-04	2.36E-05	MND	MND	MND	MND	MND	MND	MND	5.34E-06	6.28E-07	4.43E-05	5.44E-06	-5.65E-04
POCP (“smog”)	kg C ₂ H ₄ e	4.44E-04	2.21E-05	4.58E-04	9.25E-04	6.85E-05	5.41E-06	MND	MND	MND	MND	MND	MND	MND	1.71E-06	2.30E-07	2.03E-05	3.46E-06	-7.67E-04
ADP-elements	kg Sbe	8.74E-05	2.60E-07	1.40E-05	1.02E-04	8.02E-07	5.55E-08	MND	MND	MND	MND	MND	MND	MND	1.26E-09	2.69E-09	3.51E-07	5.30E-09	-1.07E-05
ADP-fossil	MJ	2.99E+01	1.37E+00	2.18E+01	5.30E+01	4.22E+00	9.16E-02	MND	MND	MND	MND	MND	MND	MND	4.68E-02	1.42E-02	1.40E-01	4.01E-02	-1.29E+01

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

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	1.65E+00	9.55E-02	1.25E+00	3.00E+00	2.95E-01	9.45E-03	MND	MND	MND	MND	MND	MND	MND	3.61E-03	9.91E-04	1.81E-02	9.18E-02	-1.41E+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.

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? [Read more online](#)

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Lucas Rodriguez, as an authorized verifier acting for EPD Hub Limited.

11.04.2025

