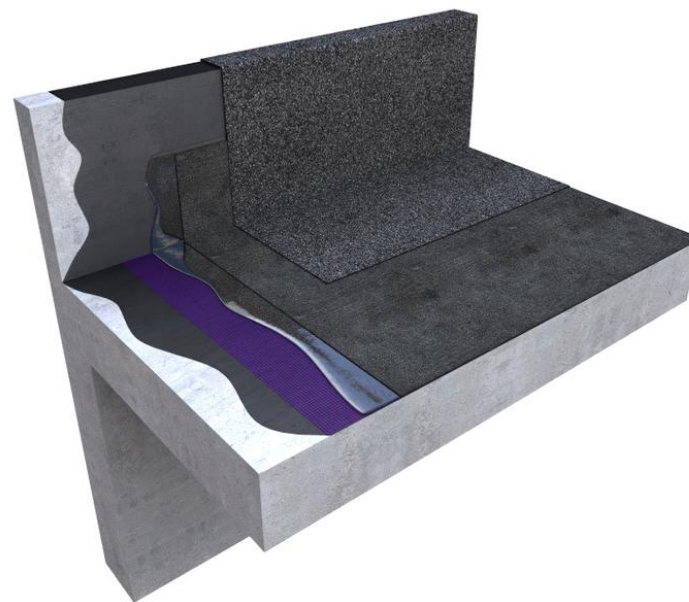




ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Wilotekt-Plus (Second Generation) Monolithic Hot Melt Structural Waterproofing System
Axter Ltd



EPD HUB, HUB-3554

Published on 29.06.2025, last updated on 29.06.2025, valid until 28.06.2030

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	Axter Ltd
Address	Harbour Landing, Fox's Marina, The Strand, Wherstead, Ipswich, IP2 8NJ, UK.
Contact details	technical@axterltd.co.uk
Website	https://axter.co.uk/

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	Angharad Wynne-Golledge, Technical and Certification Department, Axter Ltd.
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	Sarah Curpen, as an authorized verifier acting for EPD Hub Limited.

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	Wilotekt-Plus (Second Generation) Monolithic Hot Melt Structural Waterproofing System
Additional labels	-
Product reference	-
Place of production	Courchelettes, France
Period for data	01/01-31/12/2023
Averaging in EPD VP-024-C	No averaging
Variation in GWP-fossil for A1-A3 (%)	-

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m2 of manufactured hot melt waterproofing system
Declared unit mass	13.4077 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	3.26E+01
GWP-total, A1-A3 (kgCO ₂ e)	3.25E+01
Secondary material, inputs (%)	0.88
Secondary material, outputs (%)	0
Total energy use, A1-A3 (kWh)	196
Net freshwater use, A1-A3 (m ³)	0.37

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Axter Ltd is a leading, B-Corp certified, flat roof waterproofing systems specification and design company based in Ipswich, UK. Axter provides tailored technical guidance, comprehensive design support, and a commitment to delivering innovative, durable, and sustainable waterproofing systems.

PRODUCT DESCRIPTION

Wilotekt-Plus is a second-generation hot melt waterproofing system designed for use on inverted roofs, podium decks, living roofs, blue roofs, and car park decks. It consists of a polymer-modified bitumen compound reinforced with a high-strength protection membrane and reinforcement mesh, creating a seamless, flexible, and self-healing monolithic waterproofing layer. Engineered for durability and longevity, it provides effective structural waterproofing for the lifetime of the building.

The system is applied in a single-layer process, reducing installation times when compared to traditional multi-layer systems - up to 30% faster than conventional hot melt solutions.

Wilotekt-Plus is manufactured in compliance with ISO quality and environmental standards. Its design supports a variety of inverted roof finishes, including green and blue roof systems that contribute to sustainable urban drainage and biodiversity. The system's durability and efficiency help to reduce material use and maintenance requirements, aligning with sustainable construction practices.

For more information, please visit: <https://axter.co.uk/systems/wilotekt-plus>

Further information can be found at <https://axter.co.uk/>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	-	-
Minerals	14	EU
Fossil materials	86	EU
Bio-based materials	-	-

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	0.069

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m2 of manufactured hot melt waterproofing system
Mass per declared unit	13.4077 kg
Functional unit	1 m2 of manufactured hot melt waterproofing system
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	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 Wilotekt-Plus Hot Melt structural waterproofing system is comprised of four critical components; a solvent-based, toluene free, bitumen surface

conditioning primer with adhesive, a glass-fibre reinforcement mesh, an SBS polymer modified (elastomeric) bitumen compound, a stabilised polyester reinforced (180g/m²) SBS polymer modified (elastomeric) bitumen waterproofing and protection membrane, and a fifth component; A stabilised polyester reinforced (120g/m²) SBS polymer modified (elastomeric) bitumen waterproofing membrane used for system detailing. All five components are manufactured in the European Union within ISO 9001 and 14001 certified management systems. The manufacturing process is specific to each component (see manufacturing process diagram). All manufacturing processes require the use of electricity for production equipment and heating. Once manufactured, the finished components are packaged using cardboard boxes and metal drums, stacked onto pallets and wrapped, before being shipped directly to Axter's distribution site in the UK. The manufacturing process is designed to minimise production waste.

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 average distance of transportation from our manufacturing site to the construction sites across the United Kingdom is calculated to be no greater than 1700km and no lesser than 500 km. The transportation method is lorry and vehicle capacity utilisation volume factor is assumed to be 100% which means a full load. In practice, the load volume may vary but as the contribution of transportation emissions in the 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 the product is packaged properly.

Environmental impacts from installation into the construction include fuel consumption of 0.01 kWh/kg for the Monolithic Elastomeric Compound layer, and the generation of waste packaging materials (A5) and release of biogenic carbon dioxide from wood pallets/cardboard boxes.

PRODUCT USE AND MAINTENANCE (B1-B7)

The use phase is not accounted into the assessment as it is not expected to generate any environmental impacts.

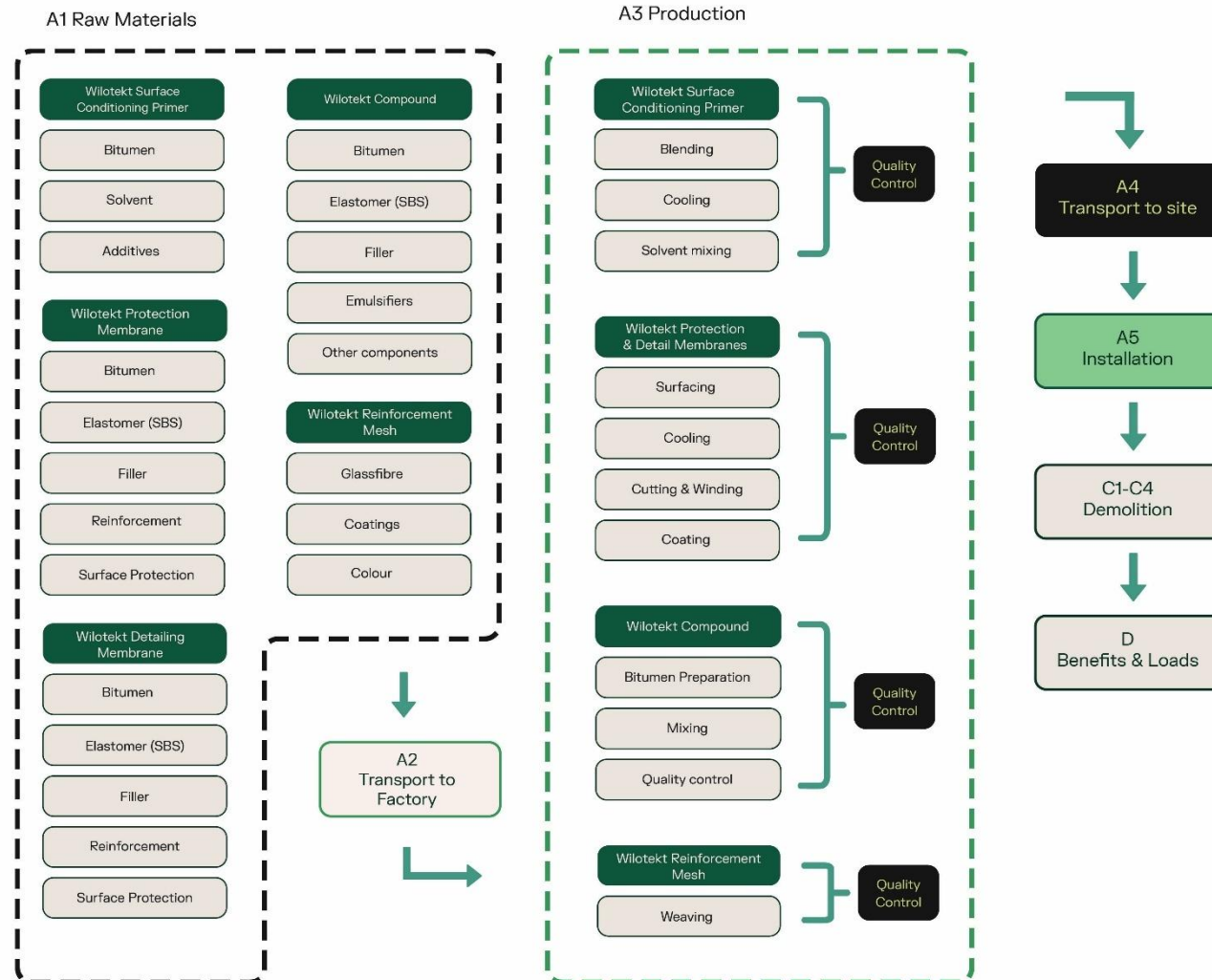
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Demolition of the product is assumed to be negligible. Transportation distance to waste treatment plant is assumed to be 50 km and the transportation method is assumed to be lorry (C2). As a conservative assumption, it has been determined that the system components are unable to be separated from the support structure for potential material recovery and so Module C3 impacts are zero and the product is assumed to be landfilled in Module C4. Due to the material and energy recovery potential of the 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.



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.

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/AC2021 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

AVERAGES AND VARIABILITY

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

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

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

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	2.42E+01	7.94E+00	3.62E-01	3.25E+01	1.14E+00	3.85E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.22E-02	0.00E+00	1.34E-01	-5.88E-02
GWP – fossil	kg CO ₂ e	2.41E+01	7.94E+00	6.15E-01	3.26E+01	1.14E+00	1.98E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.22E-02	0.00E+00	1.34E-01	-7.13E-02
GWP – biogenic	kg CO ₂ e	4.81E-02	1.80E-03	-2.55E-01	-2.05E-01	2.58E-04	3.65E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.63E-05	0.00E+00	-2.22E-04	1.26E-02
GWP – LULUC	kg CO ₂ e	2.23E-02	3.55E-03	2.63E-03	2.84E-02	5.10E-04	8.77E-06	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.23E-05	0.00E+00	3.70E-05	-3.65E-05
Ozone depletion pot.	kg CFC-11e	8.44E-06	1.17E-07	1.42E-08	8.57E-06	1.68E-08	2.57E-10	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.07E-09	0.00E+00	4.20E-09	-4.73E-10
Acidification potential	mol H ⁺ e	1.32E-01	2.71E-02	2.96E-03	1.62E-01	3.88E-03	1.28E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	2.46E-04	0.00E+00	1.48E-03	-3.20E-04
EP-freshwater ²⁾	kg Pe	7.24E-03	6.18E-04	1.74E-04	8.03E-03	8.87E-05	2.06E-06	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.62E-06	0.00E+00	2.25E-04	-3.34E-05
EP-marine	kg Ne	2.21E-02	8.89E-03	7.75E-04	3.17E-02	1.28E-03	8.03E-05	MND	MND	MND	MND	MND	MND	MND	0.00E+00	8.08E-05	0.00E+00	3.69E-04	-6.35E-05
EP-terrestrial	mol Ne	2.08E-01	9.68E-02	6.65E-03	3.12E-01	1.39E-02	6.06E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	8.80E-04	0.00E+00	3.96E-03	-6.78E-04
POCP (“smog”) ³⁾	kg NMVOCe	1.08E-01	3.99E-02	2.26E-03	1.50E-01	5.72E-03	1.86E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.63E-04	0.00E+00	1.45E-03	-2.34E-04
ADP-minerals & metals ⁴⁾	kg Sbe	2.70E-04	2.21E-05	8.43E-06	3.01E-04	3.18E-06	4.13E-08	MND	MND	MND	MND	MND	MND	MND	0.00E+00	2.01E-07	0.00E+00	2.63E-07	-5.44E-07
ADP-fossil resources	MJ	5.87E+02	1.15E+02	4.68E+01	7.49E+02	1.65E+01	2.21E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.05E+00	0.00E+00	3.12E+00	-8.18E-01
Water use ⁵⁾	m ³ e depr.	1.36E+01	5.69E-01	6.37E-01	1.48E+01	8.16E-02	2.53E-03	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.17E-03	0.00E+00	1.89E-02	-1.47E-02

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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1.16E-06	7.95E-07	4.22E-08	2.00E-06	1.14E-07	3.26E-09	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.22E-09	0.00E+00	2.25E-08	-4.41E-09
Ionizing radiation ⁶⁾	kBq 11235e	2.69E+00	1.00E-01	1.95E+00	4.74E+00	1.44E-02	4.01E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	9.12E-04	0.00E+00	4.16E-03	-3.62E-03
Ecotoxicity (freshwater)	CTUe	3.45E+02	1.63E+01	2.37E+00	3.64E+02	2.34E+00	9.24E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.48E-01	0.00E+00	2.09E+00	-1.66E-01
Human toxicity, cancer	CTUh	2.98E-08	1.31E-09	6.14E-10	3.17E-08	1.88E-10	5.29E-12	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.19E-11	0.00E+00	5.78E-11	-1.23E-11
Human tox. non-cancer	CTUh	1.23E-06	7.46E-08	8.86E-09	1.31E-06	1.07E-08	2.17E-10	MND	MND	MND	MND	MND	MND	MND	0.00E+00	6.78E-10	0.00E+00	3.72E-09	-5.71E-10
SQP ⁷⁾	-	7.76E+01	1.16E+02	1.96E+01	2.13E+02	1.66E+01	1.10E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.05E+00	0.00E+00	7.66E+00	-2.69E-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	3.03E+01	1.58E+00	5.23E+00	3.71E+01	2.26E-01	-2.40E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.44E-02	0.00E+00	6.57E-02	2.64E-01
Renew. PER as material	MJ	2.21E-02	0.00E+00	2.22E+00	2.24E+00	0.00E+00	-2.22E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	-2.12E-02	9.67E-02
Total use of renew. PER	MJ	3.03E+01	1.58E+00	7.46E+00	3.93E+01	2.26E-01	-4.63E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.44E-02	0.00E+00	4.45E-02	3.60E-01
Non-re. PER as energy	MJ	5.07E+02	1.15E+02	4.66E+01	6.69E+02	1.65E+01	1.38E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.05E+00	0.00E+00	3.12E+00	-8.18E-01
Non-re. PER as material	MJ	2.31E+02	0.00E+00	-4.67E+00	2.27E+02	0.00E+00	-1.96E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	-2.27E+02	6.50E-02
Total use of non-re. PER	MJ	7.38E+02	1.15E+02	4.19E+01	8.96E+02	1.65E+01	-5.77E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.05E+00	0.00E+00	-2.23E+02	-7.53E-01
Secondary materials	kg	1.18E-01	4.90E-02	7.98E-02	2.46E-01	7.03E-03	1.36E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	4.46E-04	0.00E+00	1.04E-03	2.97E-02
Renew. secondary fuels	MJ	1.28E-03	6.23E-04	5.91E-02	6.11E-02	8.94E-05	1.60E-06	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.66E-06	0.00E+00	1.88E-05	5.99E-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	m³	3.41E-01	1.70E-02	1.47E-02	3.73E-01	2.44E-03	-1.39E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.55E-04	0.00E+00	-3.77E-02	-3.41E-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	1.52E+00	1.95E-01	2.48E-01	1.96E+00	2.80E-02	8.80E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.77E-03	0.00E+00	5.27E-03	-1.86E-02
Non-hazardous waste	kg	3.93E+01	3.61E+00	2.20E+00	4.52E+01	5.18E-01	2.91E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.28E-02	0.00E+00	4.79E+01	-2.05E-01
Radioactive waste	kg	8.70E-04	2.46E-05	5.61E-04	1.46E-03	3.52E-06	1.01E-07	MND	MND	MND	MND	MND	MND	MND	0.00E+00	2.23E-07	0.00E+00	1.02E-06	-9.21E-07

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	1.15E-02	0.00E+00	0.00E+00	1.15E-02	0.00E+00	1.12E-01	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	2.06E-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	1.13E-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	9.31E-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	2.42E+01	7.90E+00	6.15E-01	3.27E+01	1.13E+00	2.74E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.18E-02	0.00E+00	1.33E-01	-7.10E-02
Ozone depletion Pot.	kg CFC ₁₁ e	8.58E-06	9.35E-08	1.14E-08	8.68E-06	1.34E-08	2.05E-10	MND	MND	MND	MND	MND	MND	MND	0.00E+00	8.50E-10	0.00E+00	3.35E-09	-4.38E-10
Acidification	kg SO ₂ e	1.13E-01	2.07E-02	2.41E-03	1.36E-01	2.97E-03	9.19E-05	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.88E-04	0.00E+00	1.19E-03	-2.63E-04
Eutrophication	kg PO ₄ ³ e	6.49E-01	5.04E-03	1.86E-03	6.56E-01	7.23E-04	3.07E-05	MND	MND	MND	MND	MND	MND	MND	0.00E+00	4.58E-05	0.00E+00	3.16E-04	-4.34E-05
POCP (“smog”)	kg C ₂ H ₄ e	1.42E-02	1.84E-03	1.78E-04	1.62E-02	2.64E-04	8.82E-06	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.67E-05	0.00E+00	7.71E-05	-3.22E-05
ADP-elements	kg Sbe	5.86E-04	2.16E-05	8.47E-06	6.16E-04	3.10E-06	4.05E-08	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.96E-07	0.00E+00	2.56E-07	-5.43E-07
ADP-fossil	MJ	5.34E+02	1.14E+02	7.63E+00	6.55E+02	1.63E+01	2.15E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.03E+00	0.00E+00	3.05E+00	-7.56E-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	2.41E+01	7.94E+00	6.17E-01	3.27E+01	1.14E+00	1.98E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.22E-02	0.00E+00	1.34E-01	-7.14E-02

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

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier and has been generated using a pre-verified tool. 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, by the Environmental Product Declaration and by its project report from the requirements outlined in the corresponding product category regulations based on EN 15804+A2.

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. EPD Hub confirms that it possesses sufficient knowledge and experience in construction products and the relevant standards to carry the verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency; the manufacturer(s) or group of manufacturers are responsible for its factual integrity.

EPD Hub has performed a detailed examination of the pre-verified tool and underlying data to ensure that there are no deviations in the studied Environmental Product Declaration (EPD), its Life Cycle Assessment (LCA), and project report. The tool is implemented according to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules version 1.1 and General Program Instructions version 1.2.

Tool verifier: Hai Ha Nguyen

Tool verification validity: 20 Dec 2024 - 19 Dec 2027

Sarah Curpen, as an authorized verifier acting for EPD Hub Limited.

29.06.2025

