ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

PolyMaxx HA Deck & Roof Waterproofing
Newton Waterproofing Systems

EPD HUB, HUB-5161
Published on 28.01.2026, last updated on 28.01.2026, valid until 27.01.2031

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.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Newton Waterproofing Systems
Address	Newton House, 17-19 Sovereign Way, Tonbridge, Kent, UK, TN9 1RH, UK
Contact details	info@newtonwaterproofing.co.uk
Website	https://www.newtonwaterproofing.co.uk

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 EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with modules C1-C4, D
EPD author	Warren Muschialli, Managing Director, Newton Waterproofing Systems
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Sarah Curpen 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	PolyMaxx HA Deck & Roof Waterproofing
Additional labels	-
Product reference	-
Place(s) of raw material origin	UK, Europe and Asia
Place of production	UK
Place(s) of installation and use	-
Period for data	30/09/2023 to 01/10/2024
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 (%)	5.27

ENVIRONMENTAL DATA SUMMARY

Declared unit	1m^2
Declared unit mass	2.711 kg
Mass of packaging	0.37 kg
GWP-fossil, A1-A3 (kgCO_2e)	7.90
GWP-total, A1-A3 (kgCO_2e)	7.90
Secondary material, inputs (%)	3.24
Secondary material, outputs (%)	9.59
Total energy use, A1-A3 (kWh)	35.6
Net freshwater use, A1-A3 (m^3)	0.42

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Newton Waterproofing are the UK's oldest and the largest independent designers and suppliers of guaranteed waterproofing systems. We provide the best solutions for architects, developers and homeowners to protect properties against water.

Our nationwide network of approved Specialist Contractors (NSBCs) offer industry-leading products and technical support. This elite group of waterproofing contractors work in partnership with Newton, providing the highest quality design and installation in all aspects of waterproofing.

By engaging with Newton on your project, you secure more than just technical expertise. You gain a partner committed to protecting your structure, your reputation, and your client's investment.

Our combination of industry-leading products, expert design, and collaborative approach ensures long-term performance and peace of mind.

PRODUCT DESCRIPTION

PolyMaxx HA is a BBA approved, high performance, liquid-applied waterproofing solution for structural decks, balconies, walkways and roofs. Supported by a 20-year warranty, PolyMaxx HA is a professionally installed system that is only available via verified installers.

The system is cold-applied and fully reinforced, with rapid curing and easy, flame-free installation, reducing site time and minimising programme delays.

- BBA approved system (Certificate 25/7459)
- 20-year product warranty
- Service life in excess of 30 years
- BROOF(t4) Fire Rating for roof pitches below 10 degrees
- Suitable for applications including covered or buried decks, warm roofs, zero-fall blue and green roofs, as well as balconies and podiums with foot traffic

The results in this EPD refer to a PolyMaxx HA Deck & Roof Waterproofing membrane laid with PolyMaxx HA resin (laid at a typical coverage rate of 1.2 L/m^2 first coat, 0.5 L/m^2 second coat), PolyMaxx HA Mat 225 CSM reinforcement and PolyMaxx HA Catalyst (laid at a typical catalyst rate of 3%).

Further information can be found at:
https://www.newtonwaterproofing.co.uk

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0.089	UK
Minerals	50.057	UK, Europe and Asia
Fossil materials	49.676	UK, Europe and Asia
Bio-based materials	0.178	UK

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	-
Biogenic carbon content in packaging, kg C	0.0386

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1m^2
Mass per declared unit	2.711 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

Substances of very high concern	EC	CAS
Dicyclohexyl phthalate (DCHP)	201-545-9	84-61-7

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.

The resin portion of the membrane is manufactured as follows: Enterprise resource planning software manages the complete manufacturing process for the resin element of the membrane. It generates a batch manufacturing record that contains strict procedures to produce each product in accordance with ISO 9001. The process involves an automated loading of raw materials into a high-shear reactor with conditions including mixing time, vacuum pressure and temperature. All batches are quality control tested in accordance with quality plans. The vessels are decanted using low-pressure air via a filtering system into product pails. The pails are stored on site before delivery to the distribution site; and stored at the distribution site prior to delivery to the customer.

The PolyMaxx HA Catalyst and PolyMaxx HA Mat 225 are processed and packaged; they are then stored on site until ready for delivery to the distribution site - where they are stored prior to deliver to the customer. The PolyMaxx HA Catalyst is used to cure the resin and is introduced to the resin during the construction phase. The PolyMaxx HA Mat 225 is embedded into the first coat of the system during the construction phase.

TRANSPORT AND INSTALLATION (A4-A5)

Modules not declared.

PRODUCT USE AND MAINTENANCE (B1-B7)

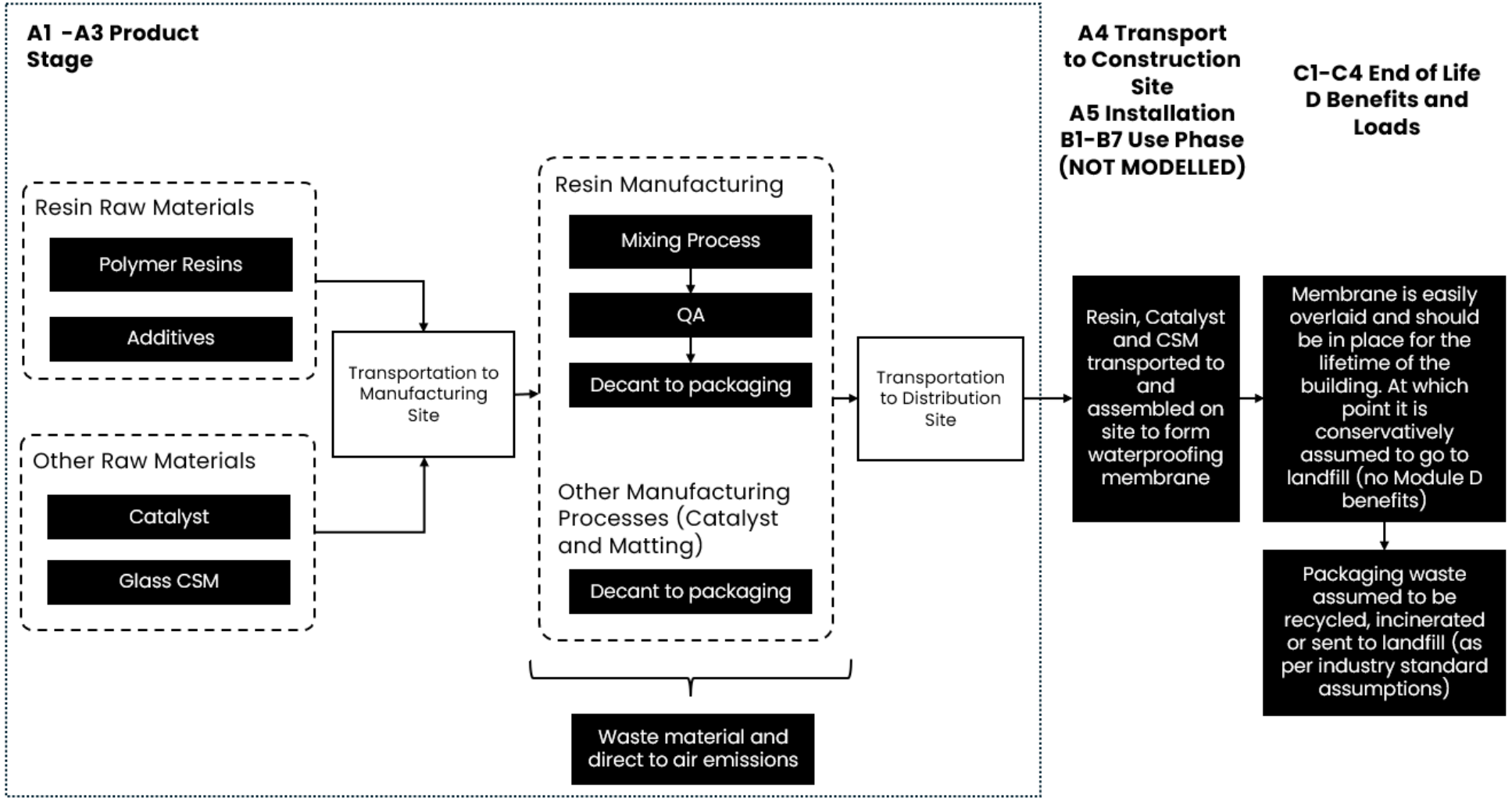
Modules not declared. Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

In the majority of situations, the membrane will be in place until the building is demolished as it can be easily overlaid at end of life (with either a new waterproofing system or as part of a thermal upgrade). It is expected that the membrane will be sent to incineration with energy recovery plant alongside

any attached substrate or roofing materials following demolition of the building. This EPD assumes a conservative model where the waste membrane, alongside any attached substrate, is disposed of in landfill at the end of life, however, less conservative options, for example incineration with energy recovery, may be applicable in practice.

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 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 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	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, %	-

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 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	6.05E+00	3.54E-01	1.49E+00	7.90E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.77E-03	1.76E-02	2.49E-02	3.11E-02	-3.83E-01
GWP – fossil	kg CO_2e	6.06E+00	3.54E-01	1.49E+00	7.90E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.77E-03	1.76E-02	2.49E-02	1.80E-02	-3.51E-01
GWP – biogenic	kg CO_2e	-1.32E-02	0.00E+00	6.12E-05	-1.31E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	1.31E-02	-3.22E-02
GWP – LULUC	kg CO_2e	9.52E-03	1.46E-04	1.15E-03	1.08E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.00E-06	6.72E-06	7.91E-06	1.01E-05	-7.03E-05
Ozone depletion pot.	kg CFC_{-11}e	2.46E-06	7.01E-09	1.21E-08	2.48E-06	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.50E-10	3.64E-10	5.73E-11	5.09E-10	-1.89E-09
Acidification potential	mol H^+e	3.00E-02	2.12E-03	4.91E-03	3.70E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.82E-05	4.43E-05	3.53E-05	1.25E-04	-1.41E-03
EP-freshwater[2)]	kg Pe	1.56E-03	2.30E-05	2.35E-04	1.81E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.82E-07	1.22E-06	2.45E-06	1.67E-06	-1.50E-04
EP-marine	kg Ne	5.17E-03	5.39E-04	1.11E-03	6.82E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.09E-05	1.25E-05	1.64E-05	5.97E-05	-3.05E-04
EP-terrestrial	mol Ne	5.01E-02	5.93E-03	1.13E-02	6.74E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.48E-04	1.35E-04	1.14E-04	5.20E-04	-3.32E-03
POCP ("smog")[3)]	kg NMVOCe	2.72E-02	2.30E-03	5.83E-03	3.53E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.34E-04	7.51E-05	3.29E-05	1.87E-04	-1.18E-03
ADP-minerals & metals[4)]	kg Sbe	1.20E-04	9.23E-07	4.07E-05	1.61E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.50E-09	5.18E-08	9.69E-08	2.82E-08	-3.24E-06
ADP-fossil resources	MJ	1.34E+02	5.18E+00	1.94E+01	1.59E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.28E-01	2.61E-01	6.05E-02	4.31E-01	-3.62E+00
Water use[5)]	m^3e depr.	1.94E+00	2.52E-02	1.58E-02	1.98E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.19E-04	1.33E-03	2.61E-03	1.26E-03	-6.21E-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, 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	2.73E-07	3.14E-08	1.01E-07	4.05E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.51E-09	1.65E-09	5.62E-10	2.84E-09	-2.24E-08
Ionizing radiation[6)]	kBq U235e	4.66E-01	5.75E-03	9.14E-02	5.63E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.66E-05	3.18E-04	6.38E-04	2.75E-04	6.08E-03
Ecotoxicity (freshwater)	CTUe	9.05E+01	5.89E-01	4.97E+00	9.60E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.04E-03	3.14E-02	7.62E-02	5.37E-02	-8.46E-01
Human toxicity, cancer	CTUh	6.37E-09	6.11E-11	6.80E-10	7.11E-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.00E-12	2.95E-12	7.74E-12	3.32E-12	-5.73E-11
Human tox. non-cancer	CTUh	8.49E-08	3.12E-09	9.64E-09	9.76E-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.59E-11	1.68E-10	2.32E-10	9.11E-11	-2.77E-09
SQP[7)]	-	1.96E+01	4.68E+00	1.96E+01	4.38E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.96E-03	2.42E-01	2.05E-01	8.51E-01	-1.06E+00

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	6.69E+00	7.89E-02	1.86E+00	8.62E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.09E-04	4.30E-03	-7.77E-01	-4.57E-01	-4.66E-02
Renew. PER as material	MJ	1.10E-01	0.00E+00	1.23E+00	1.34E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	-8.15E-01	-5.26E-01	2.82E-01
Total use of renew. PER	MJ	6.80E+00	7.89E-02	3.09E+00	9.96E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.09E-04	4.30E-03	-1.59E+00	-9.83E-01	2.35E-01
Non-re. PER as energy	MJ	9.58E+01	5.18E+00	1.87E+01	1.20E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.28E-01	2.61E-01	-4.14E-01	2.94E-01	-3.62E+00
Non-re. PER as material	MJ	3.82E+01	0.00E+00	4.17E-01	3.87E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	-4.37E-01	-3.82E+01	2.78E-01
Total use of non-re. PER	MJ	1.34E+02	5.18E+00	1.91E+01	1.58E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.28E-01	2.61E-01	-8.50E-01	-3.79E+01	-3.34E+00
Secondary materials	kg	8.78E-02	2.26E-03	6.47E-02	1.55E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.31E-05	1.14E-04	1.14E-04	1.09E-04	1.83E-01
Renew. secondary fuels	MJ	3.32E-04	2.57E-05	2.85E-02	2.89E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.39E-07	1.44E-06	5.67E-06	2.26E-06	-2.55E-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	5.04E-02	7.19E-04	3.74E-01	4.25E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.45E-06	3.78E-05	3.38E-05	3.26E-04	-9.97E-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	7.91E-01	7.46E-03	9.13E-02	8.90E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.42E-04	3.77E-04	9.79E-04	4.82E-04	-1.08E-01
Non-hazardous waste	kg	1.21E+01	1.44E-01	3.12E+00	1.54E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.94E-03	7.62E-03	6.22E-02	1.64E-01	-9.99E-01
Radioactive waste	kg	1.20E-04	1.42E-06	1.93E-05	1.40E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.39E-08	7.87E-08	1.63E-07	6.70E-08	1.60E-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	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	2.60E-01	0.00E+00	0.00E+00
Materials for energy rec	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
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	0.00E+00	2.07E-01	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	0.00E+00	1.04E-01	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	0.00E+00	1.02E-01	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_2e	6.01E+00	3.52E-01	1.52E+00	7.88E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.72E-03	1.75E-02	2.79E-02	2.07E-02	-3.48E-01
Ozone depletion Pot.	kg $CFC_{-11}e$	1.67E-06	5.58E-09	1.03E-08	1.69E-06	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.19E-10	2.89E-10	4.73E-11	4.04E-10	-1.85E-09
Acidification	kg SO_2e	2.52E-02	1.68E-03	4.00E-03	3.09E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.20E-05	3.48E-05	2.71E-05	9.25E-05	-1.14E-03
Eutrophication	kg PO_4^3e	3.15E-02	2.66E-04	1.56E-03	3.34E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.45E-05	8.72E-06	1.01E-05	3.21E-05	-2.18E-04
POCP (“smog”)	kg C_2H_4e	2.51E-03	1.14E-04	5.52E-04	3.18E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.65E-06	3.49E-06	2.90E-06	9.38E-06	-1.71E-04
ADP-elements	kg Sbe	1.13E-04	9.02E-07	4.07E-05	1.55E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.40E-09	5.06E-08	9.60E-08	2.76E-08	-3.23E-06
ADP-fossil	MJ	1.26E+02	5.08E+00	5.46E+03	5.59E+03	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.27E-01	2.56E-01	4.94E-02	4.27E-01	-3.73E+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	6.07E+00	3.54E-01	1.49E+00	7.91E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.77E-03	1.76E-02	2.49E-02	1.80E-02	-3.51E-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.

ENVIRONMENTAL IMPACTS – TRACI 2.1.

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_2e	5.92E+00	3.48E-01	1.50E+00	7.77E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.64E-03	1.73E-02	2.75E-02	2.01E-02	-3.45E-01
Ozone Depletion	kg $CFC_{-11}e$	2.23E-06	7.39E-09	1.30E-08	2.25E-06	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.58E-10	3.84E-10	6.05E-11	5.36E-10	-2.19E-09
Acidification	kg SO_2e	2.49E-02	1.81E-03	4.21E-03	3.09E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.15E-05	3.84E-05	3.12E-05	1.13E-04	-1.20E-03
Eutrophication	kg Ne	1.66E-02	1.24E-04	1.04E-03	1.78E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.53E-06	4.70E-06	1.18E-05	1.87E-05	-1.77E-04
POCP (“smog”)	kg O_3e	3.33E-01	3.68E-02	9.32E-02	4.63E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.70E-03	9.15E-04	6.27E-04	3.21E-03	-1.87E-02
ADP-fossil	MJ	9.60E+01	5.18E+00	1.02E+01	1.11E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.28E-01	2.61E-01	-4.13E-01	2.94E-01	-3.62E+00

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. Heat production, natural gas, at boiler atmospheric non-modulating <100kW, World, Ecoinvent, 0.0797 kgCO2e/MJ
2. Electricity, medium voltage, residual mix, United Kingdom, Ecoinvent, 0.44 kgCO2e/kWh

End of life scenario documentation - C1-C4 (Data source)

1. Treatment of inert waste, inert material landfill, Ecoinvent, 2.711 kg
2. Diesel, burned in building machine, Ecoinvent, 0.0271 kWh
3. Treatment of metal scrap, mixed, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.22 kg
4. Treatment of scrap steel, inert material landfill, Ecoinvent, 0.052 kg
5. Exported Energy: Thermal, Ecoinvent, 0.047 MJ
6. Exported Energy: Thermal, Ecoinvent, 0.052 MJ
7. Exported Energy: Thermal, Ecoinvent, 0.0034 MJ
8. Exported Energy: Electricity, Ecoinvent, 0.064 MJ
9. Exported Energy: Electricity, Ecoinvent, 0.038 MJ
10. Exported Energy: Electricity, Ecoinvent, 0.0023 MJ
11. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 0.022 kg
12. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, 0.021 kg
13. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 0.026 kg
14. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.006 kg
15. Treatment of waste polyethylene, municipal incineration, Ecoinvent, 0.0056 kg
16. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, 0.0035 kg
17. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, Materials for recycling, 0.012 kg
18. Treatment of waste packaging paper, municipal incineration, Ecoinvent, 0.0012 kg
19. Treatment of waste packaging paper, sanitary landfill, Ecoinvent, 0.0013 kg

Scenario information	Value
Scenario assumptions e.g. transportation	50 km transport to waste treatment site: Gervasio, H. & Dimova, S., JRC Technical report: Model for Life Cycle Assessment (LCA) of buildings, 2019.

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

Sarah Curpen as an authorized verifier for EPD Hub Limited 28.01.2026