ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Terrain PVC Overflow Pipe - 19mm White
Polypipe Building Services

EPD HUB, HUB-5450
Published on 19.02.2026, last updated on 19.02.2026, valid until 18.02.2031

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.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Polypipe Building Services
Address	College Road, New Hythe Business Park, Aylesford, Kent, ME20 7PJ, United Kingdom
Contact details	commercialenquiries@polypipe.com
Website	www.polypipe.com/commercial-building-services

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 options, A4-A5, and modules C1-C4, D
EPD author	Nigel Delo; Chris Goodwin
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	D.V, 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	Terrain PVC Overflow Pipe - 19mm White
Additional labels	No scaling table
Product reference	500.75.40W
Place(s) of raw material origin	Europe
Place of production	Aylesford, United Kingdom
Place(s) of installation and use	United Kingdom, Republic of Ireland
Period for data	Calendar year 2024
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	0%
GTIN (Global Trade Item Number)	4025416374114
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	2,71

ENVIRONMENTAL DATA SUMMARY

Declared unit	Terrain PVC Overflow Pipe - 19mm White
Declared unit mass	0,1595 kg
Mass of packaging	0,0053 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	0,43
GWP-total, A1-A3 ($kgCO_2e$)	0,39
Secondary material, inputs (%)	1,58
Secondary material, outputs (%)	33,9
Total energy use, A1-A3 (kWh)	1,58
Net freshwater use, A1-A3 (m^3)	0

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Polypipe Building Services is a UK manufacturer of highly engineered above ground drainage and supply systems, servicing the commercial and industrial sectors of the UK construction Industry.

As part of the Genuit Group we aim to help create a better built environment by developing and producing sustainable solutions to the key challenges in water, climate and ventilation management.

Polypipe Building Services are specialists in providing engineered solutions, leveraging offsite fabrication to design and deliver to mechanical and public health engineers, M&E contractors as well as local authorities. Polypipe Building Services houses the industry leading brand Terrain and has been delivering solutions to commercial, multiple occupancy residential, healthcare, education and leisure projects for over 60 years.

PRODUCT DESCRIPTION

An overflow waste system is used to control the draining of overflow water from condensing boilers and header tanks preventing overflowing. When water levels rise to an unsafe height due to issues such as blockages or malfunctions, the overflow pipe provides an escape route, directing excess water safely away from vital areas. Installation of an overflow system helps to prevent costly flooding of the building as well as improving drainage.

Terrain PVC overflow is a solvent-weld system. Suitable for both interior and exterior use.

Built on a platform of innovation and technical expertise, Terrain PVC overflow system, offers premium quality, quick installation, and outstanding flexibility.

Further information can be found at www.polypipe.com/commercial-building-services.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	-	-
Minerals	7	UK
Fossil materials	93	Europe
Bio-based materials	-	-

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	0,0098

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	Terrain PVC Overflow Pipe - 19mm White
Mass per declared unit	0,1595 kg
Functional unit	-
Reference service life	50 Years

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	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

Not declared = ND.

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 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 virgin PVC polymer is mixed with other raw material inputs. The material is then extruded into 4 metre lengths and sleeved. The product is then placed onto a timber frame and secured with plastic strapping. Electricity consumed is split between renewable energy via wind turbines (32% supported by a Renewable Energy Guarantee of Origin - REGO) and 68% by an onsite Combined Heat and Energy Plant - CHP. Production scrap is reprocessed on site and put back into the process. Head waste that cannot be reprocessed on site is sent to local waste processing (A3).
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.

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The transport distance is defined by the product category rules (PCRs). The average transport distance to builders merchants 319 km and 40 km from builders merchants to site of installation. This was calculated using a comprehensive sample of product shipped throughout 2023. This could vary dependent on location of builders merchants and installation. All vehicles used are to Euro 5 standard and use HVO biodiesel. There are no losses associated with transport because the product is wrapped and secured effectively. Volume capacity utilisation is assumed to be one for the packaged products.

The installation of the declared unit requires the use of forklift truck to take the product from the vehicle on to site ready for installation. Cleaning fluid and solvent cement are used to prepare and weld during the installation process. We have allowed for 2% waste during installation as in reality there will be some offcuts of pipe on site when cutting to exact lengths. At Polypipe Building Services we offer a collection and recovery service of product and packaging through our distribution channel of all plastic waste which can then be recycled and reused at our Aylesford site. However, we realise that not everyone will use this and therefore the reality is that some of our product and packaging will become part of the general site waste.

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.

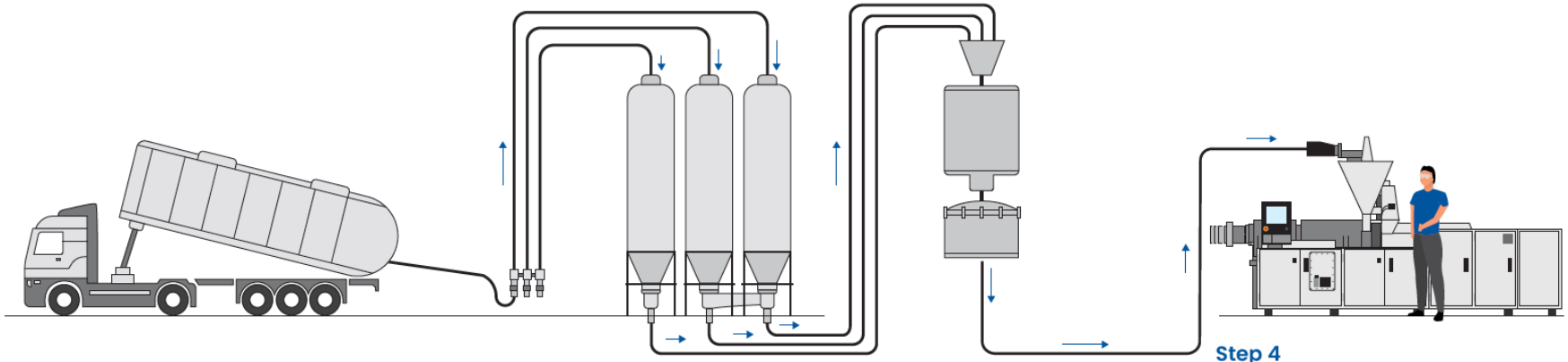
PRODUCT END OF LIFE (C1-C4, D)

As part of the deconstruction process it is assumed that diesel powered equipment would be used to transport the product around the site. This would vary depending on the deconstruction methodology. C2 has been modeled using secondary data of waste processing facilities across the UK which all fall within a 50km distance. End of life scenarios have been modelled against Plastics Europe 2021 data due to a lack of verified product

specific end-of-life data, the following scenario was used 34% recycled, 42% energy recovery, 25% landfill.

SYSTEM DIAGRAM

Stages A1 to A3



Step 1
Lorries deliver raw materials to factory.

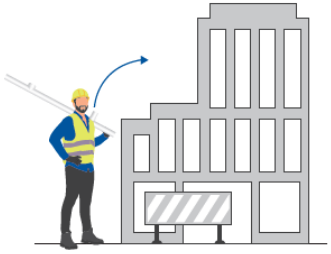
Step 2
Raw materials are pumped into silos.

Step 3
Materials are then combined in a mixer and cooled.

Step 4
Mixed materials are fed via a hopper into an extrusion machine, where the pipes are formed and cooled before packing.

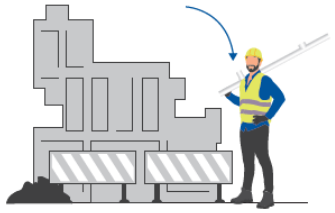
Stages A4 to A5

Step 5
The product is then loaded onto a lorry for transport to merchant or direct to site.

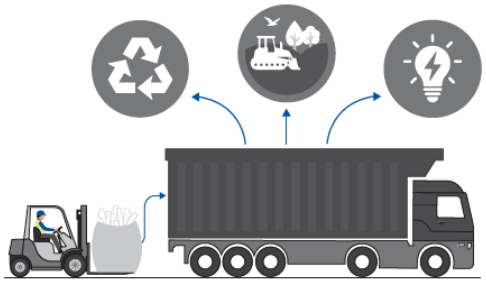


Step 6
Contractor installs product into building.

Stages C1, C2, C3, C4 & D



Step 7
Contractor removes product post-use from partially disassembled building.



Step 8
Post-use product is loaded in dump bags by forklift into lorry - and then transported for recycling, landfill or renewable energy.

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	No allocation
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 One Click LCA EPD Generator for 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'.

https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_8519174/default/table?lang=en); Debunking Efficient Recovery: The Performance of EU Incineration Facilities, 2023 https://zerowasteeurope.eu/wp-content/uploads/2023/01/Debunking-Efficient-Recovery-Full-Report-EN.docx.pdf); EUROSTAT, https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_8519242/default/table?lang=en)

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	3,91E-01	1,06E-02	-9,00E-03	3,93E-01	1,25E-02	5,04E-02	ND	ND	ND	ND	ND	ND	ND	6,85E-05	8,56E-04	1,47E-01	4,79E-03	-1,38E-01
GWP – fossil	kg CO_2e	3,90E-01	1,06E-02	2,68E-02	4,27E-01	1,30E-02	1,42E-02	ND	ND	ND	ND	ND	ND	ND	6,85E-05	8,56E-04	1,47E-01	4,79E-03	-1,40E-01
GWP – biogenic	kg CO_2e	6,53E-04	2,39E-06	-3,59E-02	-3,52E-02	-5,24E-04	3,62E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,94E-07	-2,27E-04	-2,52E-06	2,15E-03
GWP – LULUC	kg CO_2e	3,34E-04	4,75E-06	4,62E-05	3,85E-04	2,10E-05	8,65E-06	ND	ND	ND	ND	ND	ND	ND	7,02E-09	3,83E-07	2,22E-05	2,92E-07	-1,23E-04
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	1,45E-07	1,57E-10	5,71E-10	1,46E-07	2,06E-11	2,92E-09	ND	ND	ND	ND	ND	ND	ND	1,05E-12	1,26E-11	6,68E-10	1,16E-11	-4,43E-08
Acidification potential	mol H^+e	1,41E-03	3,62E-05	9,93E-05	1,55E-03	1,03E-05	3,40E-05	ND	ND	ND	ND	ND	ND	ND	6,18E-07	2,92E-06	1,15E-04	3,18E-06	-5,82E-04
EP-freshwater[2)]	kg Pe	1,30E-04	8,26E-07	6,68E-06	1,37E-04	1,14E-07	2,87E-06	ND	ND	ND	ND	ND	ND	ND	1,98E-09	6,66E-08	7,24E-06	4,71E-08	-5,80E-05
EP-marine	kg Ne	2,81E-04	1,19E-05	2,77E-05	3,21E-04	8,92E-06	8,32E-06	ND	ND	ND	ND	ND	ND	ND	2,87E-07	9,59E-07	3,91E-05	1,06E-05	-9,76E-05
EP-terrestrial	mol Ne	2,67E-03	1,29E-04	2,59E-04	3,06E-03	4,53E-05	7,37E-05	ND	ND	ND	ND	ND	ND	ND	3,14E-06	1,04E-05	3,21E-04	1,30E-05	-9,46E-04
POCP ("smog")[3)]	kg NMVOCe	1,59E-03	5,33E-05	1,32E-04	1,78E-03	2,68E-06	3,91E-05	ND	ND	ND	ND	ND	ND	ND	9,36E-07	4,30E-06	1,02E-04	5,64E-06	-5,43E-04
ADP-minerals & metals[4)]	kg Sbe	6,66E-06	2,96E-08	1,65E-07	6,85E-06	2,09E-09	1,40E-07	ND	ND	ND	ND	ND	ND	ND	2,46E-11	2,39E-09	1,96E-07	1,01E-09	-1,93E-06
ADP-fossil resources	MJ	9,49E+00	1,54E-01	5,00E-01	1,01E+01	3,91E-03	2,08E-01	ND	ND	ND	ND	ND	ND	ND	8,96E-04	1,24E-02	2,50E-01	9,94E-03	-3,42E+00
Water use[5)]	m^3e depr.	1,13E-01	7,61E-04	1,29E-02	1,26E-01	6,72E-04	2,77E-03	ND	ND	ND	ND	ND	ND	ND	2,24E-06	6,13E-05	1,73E-01	4,87E-05	-4,33E-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	1,08E-08	1,06E-09	1,34E-09	1,32E-08	6,87E-11	3,19E-10	ND	ND	ND	ND	ND	ND	ND	1,76E-11	8,57E-11	1,13E-09	7,20E-11	-2,89E-09
Ionizing radiation[6]	kBq U235e	5,14E-02	1,34E-04	2,06E-03	5,36E-02	1,49E-05	1,10E-03	ND	ND	ND	ND	ND	ND	ND	3,97E-07	1,08E-05	1,10E-03	9,88E-06	-2,82E-02
Ecotoxicity (freshwater)	CTUe	2,22E+00	2,18E-02	1,34E-01	2,38E+00	1,44E-02	5,23E-02	ND	ND	ND	ND	ND	ND	ND	4,93E-05	1,76E-03	7,29E+00	1,48E-02	-6,56E-01
Human toxicity, cancer	CTUh	6,65E-10	1,75E-12	4,06E-11	7,07E-10	3,74E-13	1,47E-11	ND	ND	ND	ND	ND	ND	ND	7,04E-15	1,41E-13	4,60E-11	2,34E-13	-1,95E-10
Human tox. non-cancer	CTUh	4,69E-09	9,97E-11	2,45E-10	5,03E-09	3,77E-11	1,17E-10	ND	ND	ND	ND	ND	ND	ND	1,12E-13	8,04E-12	7,25E-10	4,61E-11	-1,50E-09
SQP[7]	-	1,30E+00	1,55E-01	2,98E+00	4,44E+00	4,17E-02	9,58E-02	ND	ND	ND	ND	ND	ND	ND	6,28E-05	1,25E-02	1,59E-01	2,32E-02	-5,58E-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	5,63E-01	2,11E-03	3,36E-01	9,01E-01	2,06E-03	3,72E-03	ND	ND	ND	ND	ND	ND	ND	5,67E-06	1,70E-04	2,47E-02	1,56E-04	-2,83E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	3,14E-01	3,14E-01	0,00E+00	-3,14E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,00E-03
Total use of renew. PER	MJ	5,63E-01	2,11E-03	6,50E-01	1,22E+00	2,06E-03	-3,11E-01	ND	ND	ND	ND	ND	ND	ND	5,67E-06	1,70E-04	2,47E-02	1,56E-04	-2,79E-01
Non-re. PER as energy	MJ	5,66E+00	1,54E-01	-1,05E+00	4,77E+00	3,48E-03	-1,36E-01	ND	ND	ND	ND	ND	ND	ND	8,96E-04	1,24E-02	-3,44E+00	-1,56E+00	-4,55E+00
Non-re. PER as material	MJ	3,83E+00	0,00E+00	9,12E-01	4,74E+00	0,00E+00	-1,96E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-7,98E-01	-2,39E+00	2,36E+00
Total use of non-re. PER	MJ	9,49E+00	1,54E-01	-1,38E-01	9,51E+00	3,48E-03	-3,32E-01	ND	ND	ND	ND	ND	ND	ND	8,96E-04	1,24E-02	-4,24E+00	-3,95E+00	-2,19E+00
Secondary materials	kg	2,52E-03	6,56E-05	1,42E-03	4,01E-03	2,31E-06	9,79E-05	ND	ND	ND	ND	ND	ND	ND	3,72E-07	5,29E-06	2,59E-04	3,60E-06	5,83E-02
Renew. secondary fuels	MJ	2,29E-05	8,33E-07	1,07E-02	1,08E-02	3,44E-08	2,16E-04	ND	ND	ND	ND	ND	ND	ND	9,73E-10	6,71E-08	2,31E-05	6,74E-08	-5,72E-06
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	2,98E-03	2,28E-05	3,07E-04	3,31E-03	1,57E-05	6,43E-05	ND	ND	ND	ND	ND	ND	ND	5,92E-08	1,84E-06	4,02E-03	-1,48E-04	-1,33E-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	2,34E-02	2,61E-04	1,77E-03	2,55E-02	4,16E-05	6,06E-04	ND	ND	ND	ND	ND	ND	ND	9,97E-07	2,10E-05	4,08E-02	1,75E-05	-8,26E-03
Non-hazardous waste	kg	1,21E+01	4,83E-03	1,45E-01	1,23E+01	2,67E-04	2,56E-01	ND	ND	ND	ND	ND	ND	ND	1,36E-05	3,89E-04	1,75E-01	1,99E-01	-3,78E+00
Radioactive waste	kg	1,34E-05	3,28E-08	5,23E-07	1,40E-05	3,59E-09	2,86E-07	ND	ND	ND	ND	ND	ND	ND	9,74E-11	2,65E-09	2,82E-07	2,42E-09	-7,31E-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	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	3,19E-02	3,19E-02	0,00E+00	2,56E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	5,40E-02	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	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	0,00E+00	2,56E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	5,30E-01	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	1,07E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	2,20E-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	1,49E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	3,10E-01	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_2e	3,87E-01	1,06E-02	2,67E-02	4,24E-01	1,30E-02	1,42E-02	ND	ND	ND	ND	ND	ND	ND	6,81E-05	8,51E-04	1,47E-01	4,58E-03	-1,36E-01
Ozone depletion Pot.	kg $CFC_{-11}e$	1,44E-07	1,25E-10	4,67E-10	1,45E-07	1,97E-11	2,90E-09	ND	ND	ND	ND	ND	ND	ND	8,31E-13	1,01E-11	6,35E-10	9,24E-12	-4,41E-08
Acidification	kg SO_2e	1,17E-03	2,76E-05	7,93E-05	1,28E-03	5,94E-06	2,78E-05	ND	ND	ND	ND	ND	ND	ND	4,35E-07	2,23E-06	9,07E-05	2,36E-06	-4,89E-04
Eutrophication	kg PO_4^3e	3,87E-04	6,73E-06	4,44E-04	8,37E-04	2,37E-05	1,79E-05	ND	ND	ND	ND	ND	ND	ND	1,02E-07	5,43E-07	1,80E-05	1,54E-06	-2,01E-04
POCP (“smog”)	kg C_2H_4e	1,15E-04	2,46E-06	1,30E-05	1,30E-04	1,98E-07	2,83E-06	ND	ND	ND	ND	ND	ND	ND	3,26E-08	1,99E-07	8,53E-06	8,86E-07	-4,06E-05
ADP-elements	kg Sbe	5,36E-06	2,89E-08	1,63E-07	5,55E-06	2,30E-09	1,14E-07	ND	ND	ND	ND	ND	ND	ND	2,39E-11	2,33E-09	1,34E-07	9,79E-10	-1,54E-06
ADP-fossil	MJ	8,59E+00	1,52E-01	4,65E-01	9,20E+00	3,67E-03	1,89E-01	ND	ND	ND	ND	ND	ND	ND	8,90E-04	1,22E-02	2,32E-01	9,78E-03	-2,92E+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	3,90E-01	1,06E-02	2,69E-02	4,28E-01	1,31E-02	1,42E-02	ND	ND	ND	ND	ND	ND	ND	6,85E-05	8,56E-04	1,47E-01	4,79E-03	-1,40E-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.

MANUFACTURING ENERGY SCENARIO DOCUMENTATION

Scenario parameter	Value
Electricity data source and quality - Gas	Electricity production, natural gas, combined cycle power plant, United Kingdom, Ecoinvent
Electricity CO2e / kWh	0.0168 kgCO2e/kWh
Electricity data source and quality - Wind	Electricity production, wind, 1-3MW turbine, offshore, United Kingdom, Ecoinvent
Electricity CO2e / kWh	0.0168 kgCO2e/kWh

TRANSPORT SCENARIO DOCUMENTATION A4

Scenario parameter	Value
Fuel type, consumption, and vehicle type. Eg, electric truck, diesel powered truck	EURO5 HVO lorry >32 metric ton
Average transport distance, km	50
Capacity utilization (including empty return) %	50
Bulk density of transported products	0.1648 kg
Volume capacity utilization factor	<1

INSTALLATION SCENARIO DOCUMENTATION A5

Scenario information	Value
Diesel, burned in building machine, Ecoinvent	1.9E-4 kWh
Treatment of waste polyethylene terephthalate, for recycling, unsorted, sorting, Ecoinvent	0.00319 kg
Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling	3.2E-4 kg
Treatment of waste wood, untreated, municipal incineration, Ecoinvent	3.0E-4 kg
Exported Energy: Thermal, Ecoinvent	9.2E-4 MJ 0.014 MJ

Exported Energy: Electricity, Ecoinvent	6.7E-4 MJ 0.01 MJ
Treatment of waste packaging paper, sanitary landfill, Ecoinvent	3.8E-4 kg
Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling	0.0016 kg
Treatment of waste polyethylene, municipal incineration, Ecoinvent	0.0015 kg
Treatment of waste polyethylene, sanitary landfill, Ecoinvent	9.4E-4 kg
Treatment of waste wood, untreated, sanitary landfill, Ecoinvent	2.1E-4 kg

END OF LIFE SCENARIO DOCUMENTATION

Scenario information	Value
Diesel, burned in building machine, Ecoinvent	1.9E-4 kWh
Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling	0.054 kg
Treatment of waste polyvinylchloride, municipal incineration, Ecoinvent	0.065 kg
Exported Energy: Electricity, Ecoinvent	0.22 MJ
Exported Energy: Thermal, Ecoinvent	0.31 MJ
Treatment of waste polyethylene, sanitary landfill, Ecoinvent	0.31 MJ
Scenario assumptions e.g. transportation	50 km truck transportation to disposal

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

D.V, as an authorized verifier for EPD Hub Limited 19.02.2026