CUBIS SYSTEMS
A CRH COMPANY

Programme:
The International EPD System, www.environdec.com

Programme operator:
EPD International AB

Licensee:
EPD of multiple products, based on the average results of the product group

EPD registration number:
EPD-IES-0025176

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

STAKKAbox™ JMF

Environmental product declaration.

ECO PLATFORM EPD VERIFIED

EPD INTERNATIONAL EPD SYSTEM

Contents

Programme details

Programme:
The International EPD® System

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Product category rules (PCR):
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR):
Product Category Rules (PCR): PCR 2019:14 Construction products. Version 2.0.1, 2025-06-05, CPC 3699 Articles of plastics n.e.c.

PCR review was conducted by:
The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Rob Rouwette (chair), Noa Meron (co-chair).The review panel may be contacted via the Secretariat www.environdec.com/contact

Procedure for follow-up of data during EPD validity involves third party verifier:

☐ Yes ☒ No

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

☒ Individual EPD verification without a pre-verified LCA/EPD tool

Third-party verifier:
Chris Foster, EuGeos Srl

Approved by:
International EPD System

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

For further information about comparability, see EN 15804 and ISO 14025.

Cubis Systems

Owner of the EPD:
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Description of the organisation:
Cubis Systems is the market leader in access chambers and cable protection systems for global infrastructure markets. Active across seven distinct market sectors, from water to telecoms and selling to more than 30 countries, Cubis manufactures its products at sites across the UK and Ireland. Being part of CRH enables Cubis to benefit from some of the highest ethical standards and practices while providing knowledge and expertise from one of the largest construction materials companies globally.

Our people
At Cubis, our ability to deliver the best for our customers rests on our people's commitment, talent, and skills. Our employees are dedicated to making the company's innovations in new designs, manufacturing techniques, and materials work consistently for customers worldwide. With customer satisfaction firmly embedded in our company culture, we build close relationships in key industries internationally to ensure Cubis products solve real-world issues in the building of underground infrastructure networks.

Our products
Cubis products deliver high-quality modern solutions that replace conventional construction materials like bricks and concrete.

Our strong, lightweight modular products incorporate intelligent design features and can be installed much faster than traditional methods, saving customers time and money. All our products have been designed to maximise structural strength using the optimum amount of material, thus eliminating any unnecessary weight or waste. By re-using materials, where possible, that would otherwise be disposed of as waste, we not only divert them from waste streams but also reduce the carbon footprint of our products and promote resource efficiency. The design and adaptability of our products also future proof the system, allowing for expanded capacity without a need for product replacement. Lightweight product parts remove the need for heavy lifting equipment, reducing the energy demand during installation.

Our responsibilities
Whether in the workplace, the marketplace, the community, or the environment, corporate responsibility matters to Cubis, and we show it through how we work and behave. At Cubis Systems, we manufacture our products using a variety of materials. We aim to create a closed-loop recycling system and a circular economy. We can achieve this by using as much recycled material as possible in our manufacturing process and ensuring our products are either recyclable or reusable wherever possible. Health and Safety is integrated into the company's business and operations fabric. We fully support the right of every employee to work in an environment that means we all go home safely at the end of each day. We also take our responsibility to the environment seriously. We work hard to address the challenges of climate change both through product design and careful management of our production processes.

Product-related or management system-related certifications:
Cubis plants are certified to ISO 14001:2015 Environmental Management and ISO 9001:2015 Quality Management

Product name:
STAKKAbox™ JMF

Product identification:
Access chamber system in HDPE.

UN CPC code:
CPC 3699 Articles of plastics n.e.c

Product description:

Cubis' access chambers are built using the pioneering STAKKAbox™ system. This internationally specified range of modular, structural, and preformed access chambers offers flexible solutions across various applications and markets.

The STAKKAbox™ JMF offers a flexible access chamber system that provides a modular, scalable solution built on-site with easily stacked parts. It significantly reduces the costs of in-situ construction through time savings and offers greater health and safety benefits for installers due to its lightweight properties.

Fast and easy to install

STAKKAbox™ chambers are significantly faster to install than conventional alternatives, with complete installations typically taking up to one hour, reducing installation costs. No specialist equipment or plant is required in order to install the chamber and there is no need for specialist box builders.

Flexible during installation

Chambers can be adapted to suit on-site conditions with standard tools to overbuild over existing networks, introduce duct entries for cable entry and for top-section fine adjustment.

Sectional & twinwall design

Chambers are built to the required depth by adding 150mm sections. Due to the twinwall design, individual sections are light meaning they can be manually lifted. Each access chamber possesses vertical and horizontal ribs, resulting in a product that is strong vertically and on the sidewall. Most installations do not require specialist backfills, reducing installation costs.

Smooth outer walls with lip to 'key in'

STAKKAbox™ chambers have smooth outer walls and an outer lip which keys into the backfill.

Innovative ring section design

Pioneering chamber design that incorporates a custom textured tread pattern to increase mortar grip between the frame and chamber section, reducing lateral movement. Recessed locator grout bars provide a positive frame location, reducing frame movement.

Drop-in furntiure & steps

Cable management and steps are fitted by dropping the accessories into pre-formed pockets. These allow accessories to be retrofitted after installation without mechanical fixing.

Name and location of production site(s):

Cubis Systems

Roscommon:
Roscommon Business & Technology Park,

Gallowstown, Co. Roscommon, F42 XK30, Ireland.

Further technical information is available at

https://www.cubis-systems.com/uk/technical-area/

Cubis Systems
Content declaration

The content declaration is detailed in the following table. Data refers to 1 kg of an average STAKKAbox JMF.

Product components	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material mass-% of product	Biogenic material, kg C/product or declared unit
Virgin HDPE	0.06	0%	0	0
Recycled HDPE	0.75	75%	0	0
HDPE from internal regrind	0.15	0%	0	0
Pigment	0.04	0%	0	0
TOTAL	**1.00**	**75%**	**0**	**0**

Product materials	Mass, kg	Mass-% (Versus the product)	Biogenic material, kg C/ product or declared unit
Pallet - wood	0.08	8%	0.04
TOTAL	**0.08**	**8%**	**0.04**

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

For construction products with EPDs compliant with the EN 15804 standard, the EPD must declare the substances contained in the products that are listed on the “Candidate List of Substances of Very High Concern for Authorization” when their content exceeds the thresholds for registration with the European Chemicals Agency (0.1% by weight/weight).

The product does not contain any substances listed on the SVHC list.

LCA information

Declared unit:
1 kg of STAKKAbox™ JMF

Reference service life:
NA

Time representativeness:
2023

Geographical scope:
Europe and UK for Modules A1-A3, Global for Modules A4-A5, C1-C4 and D.

Database and LCA software used:
Ecoinvent 3.10 – Allocation, cut-off, EN 15804; SimaPro Craft, v. 10.2.0.2

Characterisation method:
EN 15804 +A2 LCIA & LCI indicators as implemented in SimaPro Craft v.10.2.0.2, based on the Environmental Footprint 3.1 method. The following modifications have been implemented:

- Primary energy non-renewable total indicator has been adapted to be calculated as the Abiotic depletion potential, fossil indicator; for LHV used for Primary energy as raw material refer to LCA information;
- Exported energy calculation is compliant with PCR 2019:14 and added manually in datasets of incineration as an output.

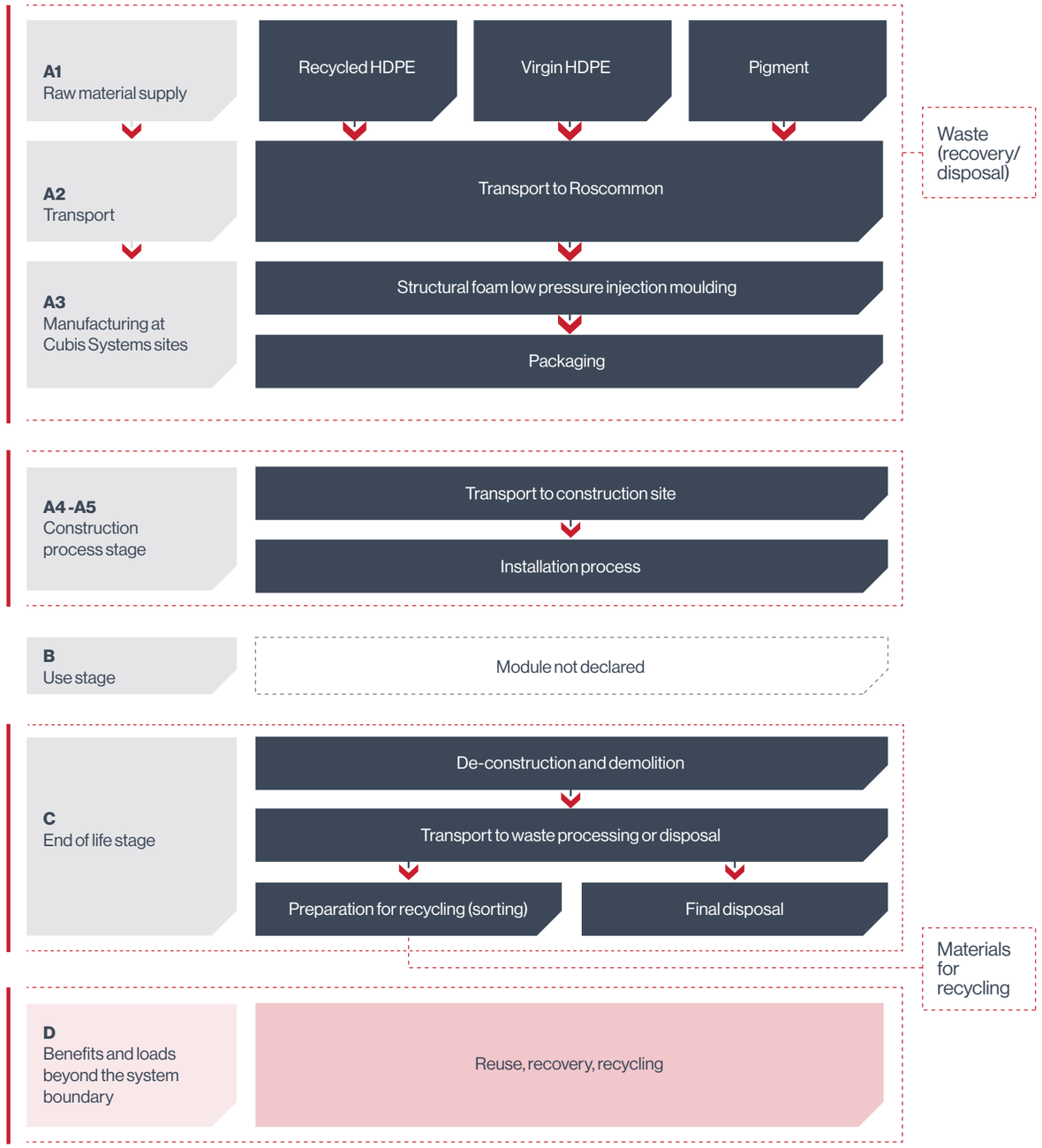
Description of system boundaries:
Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and A4-A5). System boundaries include:

- A1: Raw material extraction and processing, processing of secondary material input, production of energy used in manufacturing processes (A3);
- A2: Transport of raw materials and secondary materials to Cubis Systems sites and internal transports;
- A3: Manufacturing of the construction product and packaging, including water use, emissions to air, water discharges and waste to be recovered or disposed, upstream production and transport of any losses;
- A4: Transport to the installation site;
- A5: Installation;
- C1: De-construction and demolition;
- C2: Transport to waste processing;
- C3: Waste processing for reuse, recovery and/or recycling;
- C4: Final disposal;
- D: Estimate of the potential benefits and/or impacts in case the products under study were reused, recycled or recovered.

The system boundaries do not include:

- Input and output flows related to personnel (e.g. energy used in head offices and sales offices, transports of employees to and from workplace, water use for toilets, etc);
- Input and output flows related to production and maintenance of equipment;
- Infrastructure and capital goods, with exception for electricity and heat in A3 Module and polyethylene production.

System diagram:



Cubis Systems
Life cycle assessment methodology

Cut-off:

The following cut-off were applied: PL strapping and steel buckles used for packaging; Waste from manufacturing <1% of the total; since negligible in weight.

Allocation rules:

Input and output flows were allocated based on the mass of products and co-products.

Packaging:

It is assumed that pallets are reused 25 times.

Energy mix:

Roscommon site uses electricity from grid and the residual mix of GB has been used, which means a mix of energy from natural gas (65.24%), nuclear (23.02%) and other sources (11.74%).

The GWP-GHG of the electric mix is 435 g CO2eq./kWh.

Modelling of infrastructure/ capital goods:

In accordance with Section 4.3.6 of PCR 2019:14 version 2.0.1, the datasets used for modelling electricity and heat include the impacts associated with the construction of the related infrastructure.

Recycled materials

The recycled HDPE used in STAKKAbox JMF has an impact on the GWP-GHG indicator of 2.52E-01 kg CO2eq / kg. All the recycled material externally sourced from Cubis is assumed to be 100% post-consumer. Recycled materials enter the system together with the impact of recycling, while the impact of the material and the preparation to recycling are allocated to the previous system.

Production process (A1-A3):

See product description. The following LHV has been considered to model the indicators related to energy use for HDPE.

Material	LHV (Lower heating value, MJ/kg)	Source
HDPE	42.47	Ecoinvent 3.10

Transport and installation (A4 – A5):

Module A4:

Transportation impacts occurred from delivering the final products to the construction site, covering direct fuel exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions. Distribution scenario was modelled according to logistics data provided by Cubis Systems and using Ecoinvent datasets on freight transport: truck > 32t (diesel) for road transport and ship (diesel) for extra-European transportation:

- Vehicle type: truck > 32t (diesel) for road transport, ferry for European transportation (heavy fuel oil) and ship (heavy fuel oil) for extra-European transportation;
- Weighted average distance: 545 km by truck, 234 km by ferry;
- Capacity utilisation: According to Ecoinvent datasets on freight transport in Europe (60% for truck, 50% for ferry, 70% for container ship);
- Bulk density of transported products: Trucks are loaded to their maximum mass capacity;
- Volume capacity utilisation factor: <1

Module A5:

The installation of STAKKAboxTM JMF requires the following inputs:

- excavator, diesel (0.043 litres/kg),
- jumping jack, petrol (0.0028 litres/kg),
- removal of excess soil by truck >32t (0.047 t/kg, distance 10 km one way), assumed 90% to recovery and 10% destined to landfill;
- waste materials generated by the product's installation: Packaging, wooden pallet, to energy recovery 13%, to incineration 37%, to recycling 50% (assumed 50 km to facilities).

End of life scenario (C1-C4):

- Collection process: 1 kg of waste collected separately
- Recovery system: 0.24 kg for recycling; 0.49 kg for energy recovery
- Disposal: 0.27 kg of HDPE rings for final deposition
- Assumptions for scenario development:
  - Module C1: the same amount of diesel used for excavators during installation (module A5, 0.054 litres/kg) was assumed;
  - Module C2: a distance of 80 km (for materials not to be incinerated) and 130 km (for materials to be incinerated) by truck (Transport, freight, lorry >32 metric ton, EURO5 {RER}| transport, freight, lorry >32 metric ton, EURO5 | EN15804, U) was assumed for the transport of materials to waste processing or disposal, distributed as follows.
  - Modules C3 / C4: the following EoL scenario for HDPE was set:
  - 24% to recycling; 49% to energy recovery; 27% to landfill;
  - for HDPE to reach the End-of-Waste state, sorting processes must be carried out, involving the use of 0.017 kWh/kg of electricity, 0.000086 MJ/kg of natural gas, 0.069 MJ/kg of diesel and 0.018 MJ/kg of LPG.

Benefits and loads beyond the system boundary (module D):

- The analysis was limited to raw materials used in the BoM of each product. All process waste generated in Modules A1-A3 were excluded from the modelling.
- The benefits and loads were calculated for net flows of materials across the system boundary, i.e. materials to be recycled or recovered leaving the system minus recycled materials used in manufacture.
- The recycling rate at the end-of-life stage of the product is lower than the content of recycled material in input, resulting in a negative net flow for the calculation of module D and, in turn, to negative potential benefits related to recycling.
- The quality of recycled materials is assumed to be maintained during the process of recycling. For this reason, the ratio QROut/QSub is set to 1.

STAKKAbox™ JMF is a range of modular and structural preformed access chambers that provide a modern alternative to traditionally brick-built chambers.

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

Stages		Module	Modules declared	Geography	Share of primary data	Variation: products	Variation: sites
Product stage	Raw material supply	A1	X	EU	56%	<10%	0
	Transport	A2	X	EU			
	Manufacturing	A3	X	UK			
Distribution / installation stage	Transport	A4	X	Global			
	Construction installation	A5	X	Global			
Use stage	Use	B1	ND	-	-	-	-
	Maintenance	B2	ND	-	-	-	-
	Repair	B3	ND	-	-	-	-
	Replacement	B4	ND	-	-	-	-
	Refurbishment	B5	ND	-	-	-	-
	Operational energy use	B6	ND	-	-	-	-
	Operational water use	B7	ND	-	-	-	-
End of life stage	De-construction demolition	C1	X	Global	-	-	-
	Transport	C2	X	Global	-	-	-
	Waste processing	C3	X	Global	-	-	-
	Disposal	C4	X	Global	-	-	-
Beyond product life cycle	Reuse-Recovery-Recycling-potential	D	X	Global	-	-	-

Cubis Systems
Summary of data quality assessment

As required by section 4.6.5 of the PCR, the following table provides a summary of the data quality assessment (DQA) for the datasets that contribute to at least 80% of the results for each of the declared environmental impact indicators. For most indicators, the A1–A3 modules account for over 80% of the total impacts. For a smaller number of indicators, module C3 also shows a non-negligible contribution and has therefore been included in the DQA.

Data quality scheme:
EN 15804:2012+A2:2019, Annex E, Table E.1

Use of poor/very poor data:
The dataset used to model the diesel fuel in A3 and A5 modules shows limited geographical representativeness. In particular, the dataset for diesel combustion is based on global average data, which may not fully reflect the regional context of the study.

Use of Fair data with more than 30 % of a core impact:
The dataset used to model energy recovery of HDPE in module C3 shows limited geographical representativeness. The dataset used is representative of the Swiss area, which has similar technological conditions to those of the main distribution area.

Data Collection period for raw data: 1/1/2023-31/12/2023

Geography:
The product is manufactured in the UK and commercialised and installed worldwide (mainly UK and Europe).

Technology:
STAKKAbox JMF is made of 90% recycled HDPE rings 150 mm high, stacked on top of one another. Rings sizes range from 445x445 mm to 1310x1310 mm.

STAKKAbox JMF is manufactured in Roscommon through low pressure injection moulding processes.

Geography and technology:
STAKKAbox JMF is manufactured in Roscommon through low pressure injection moulding processes.

This EPD covers different variants of the same product which only differs for dimension.

The calculated impacts for the GHG-GWP indicator within the A1–A3 life cycle stages of the different variants exhibit a variation of less than 10% from the average. The A1–A3 life cycle stages contribute approximately 37% of the total GWP-GHG impact associated with the product, followed by C3 Module which contributes for the 44%. No average data was used.

LCI/LCA database:
Ecoinvent 3.10 (2023) – Allocation, cut-off, EN 15804

Other informations:
The end of life scenario has been modelled according to statistics of Plastics Europe, 2018 for HDPE

The data quality information presented in this EPD has been prepared and reported in accordance with the requirements set forth in UNI EN 15941:2024 and complies with the data quality criteria specified in EN 15804:2012+A2:2019

As requested by PCR, the following table provides information on the quality of the data used for processes contributing more than 10% to the GWP-GHG results of modules A1-A3 for the product considered.

A conservative approach has been adopted and only processes for which a 100% of primary data could be assessed contributes to the declared share of primary data. For this reason, primary data includes:

- Generation of electricity used in manufacturing of product;
- Transport of raw materials to manufacturing site.

Production of raw materials has been modelled using both datasets from Ecoinvent and primary data on composition.

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results
Generation of electricity used in manufacturing of product	Database	Ecoinvent v3.10	2023	Primary data	44.2%
Transport of raw materials to manufacturing site	Database	EPD Owner, Ecoinvent v3.10	2023	Primary data	11.9%
Production of raw materials	Database	EPD Owner, Ecoinvent v3.10, EcoCalculator	2023	Secondary data	0%
Total share of primary data, of GWP-GHG results for A1-A3*					**56.1%**

*The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

LCA results of the product - main environmental performance results

The results presented in the following sections refer to the average results of the different variants of the product analysed.

The difference between the declared average GWP-GHG result, and the products with GWP-GHG results furthest away, for modules A1-A3, is less than 10%.

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

The characterization method used for results calculation does not present a regionalisation for elementary flows related to Water Depletion Potential.

All non-zero values for the Secondary materials indicator in modules other than A1-A3 are modelling artefacts.

Inventory indicators relating to the use of renewable and non-renewable secondary fuels, as well as hazardous and non-hazardous waste disposed, have been assumed 0, as these flows are not significant for the products under analysis and their modelling would be subject to a high level of uncertainty.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

Mandatory impact category indicators according to EN 15804

Results per declared unit

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	9.91E-01	6.98E-02	2.41E-01	1.44E-01	1.64E-02	1.16E+00	2.45E-02	1.63E-01
GWP-fossil	kg CO_2 eq.	9.95E-01	6.98E-02	2.34E-01	1.44E-01	1.64E-02	1.16E+00	2.45E-02	1.78E-01
GWP-biogenic	kg CO_2 eq.	-4.67E-03	2.56E-06	6.94E-03	6.19E-06	6.16E-07	1.82E-05	8.80E-07	-1.34E-02
GWP-luluc	kg CO_2 eq.	1.98E-04	1.81E-06	1.21E-05	4.96E-06	4.02E-07	6.65E-06	2.05E-07	-9.55E-04
ODP	kg CFC 11 eq.	4.23E-08	1.27E-09	4.59E-09	2.27E-09	3.34E-10	3.89E-10	8.61E-11	-7.75E-08
AP	mol H^+ eq.	2.51E-03	9.22E-04	2.02E-03	1.35E-03	4.07E-05	2.57E-04	1.69E-05	-4.28E-03
EP-freshwater	kg P eq.	1.18E-05	5.70E-08	1.55E-06	1.36E-07	1.37E-08	2.72E-07	9.06E-09	-4.49E-05
EP-marine	kg N eq.	6.02E-04	2.46E-04	8.32E-04	6.33E-04	1.56E-05	1.27E-04	2.76E-05	-8.03E-04
EP-terrestrial	mol N eq.	6.56E-03	2.73E-03	9.09E-03	6.93E-03	1.71E-04	1.30E-03	7.81E-05	-8.79E-03
POCP	kg NMVOC eq.	3.11E-03	7.93E-04	2.84E-03	2.06E-03	7.11E-05	3.26E-04	3.56E-05	-7.52E-03
ADP-minerals & metals*	kg Sb eq.	2.99E-06	1.71E-09	1.97E-08	6.02E-09	5.40E-10	5.70E-09	1.13E-09	-7.84E-08
ADP-fossil*	MJ	2.23E+01	8.90E-01	3.55E+00	1.90E+00	2.16E-01	2.01E-01	5.93E-02	-5.12E+01
WDP*	m^3	2.01E-01	8.53E-04	0.00E+00	2.47E-03	2.27E-04	5.65E-02	0.00E+00	0.00E+00

Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Additional mandatory and voluntary impact category indicators

Results per declared unit

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG[1]	kg CO_2 eq.	9.98E-01	6.98E-02	2.34E-01	1.44E-01	1.64E-02	1.16E+00	2.45E-02	1.63E-01

[1]This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.

Additional environmental impact indicators are not declared in this EPD. Detailed results for these indicators are available in the product's LCA Report, referenced in the Bibliography.

Waste indicators

Results per declared unit

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Radioactive waste disposed	kg	7.06E-05	6.79E-08	4.46E-07	9.68E-08	2.03E-08	3.63E-07	2.06E-08	-7.35E-05

Output flow indicators

Results per declared unit

INDICATOR	UNIT	A1-A3	A4	A5	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	0.00E+00	0.00E+00
Material for recycling	kg	1.07E-03	1.91E-08	4.23E+01	4.84E-08	5.26E-09	2.42E-01	1.30E-06	2.09E-04
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	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	4.55E-03	0.00E+00	0.00E+00	4.25E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	9.25E-03	0.00E+00	0.00E+00	8.37E+00	0.00E+00	0.00E+00

Resource use indicators

Results per declared unit

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.09E+00	2.64E-03	2.40E-02	4.24E-03	7.64E-04	1.59E-02	1.63E-03	-2.37E+00
PERM	MJ	4.59E-02	0.00E+00	-2.65E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.14E+00	2.64E-03	-2.51E-03	4.24E-03	7.64E-04	1.59E-02	1.63E-03	-2.37E+00
PENRE	MJ	1.88E+01	8.90E-01	3.55E+00	1.90E+00	2.16E-01	2.01E-01	5.93E-02	-5.12E+01
PENRM	MJ	4.21E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.28E+01	0.00E+00	0.00E+00
PENRT	MJ	6.09E+01	8.90E-01	3.55E+00	1.90E+00	2.16E-01	-2.26E+01	5.93E-02	-5.12E+01
SM	kg	8.06E-01	3.88E-07	5.48E-05	3.41E-06	1.07E-07	1.54E-05	5.21E-06	5.40E-01
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	4.79E-03	2.09E-05	0.00E+00	5.95E-05	5.54E-06	1.32E-03	0.00E+00	0.00E+00

Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Additional LCA results of the product(s)

Module A4: Additional transport scenario for UK

Results for a scenario in which all the products are only delivered in the UK has been calculated for the GWP-GHG indicator. Assuming a distance of 160 km from Roscommon to the nearest port, 220 km by ferry to Liverpool and 350 km by truck from Liverpool to other destinations, the impact of Module A4 would be 7.21E-02 kgCO2eq.

As per the PCR, results for the 100% energy recovery, 100% recycling and 100% disposal end-of-life scenarios are provided below.

The results of the 100% energy recovery end-of-life scenario are shown below.

Mandatory impact category indicators according to EN 15804 (100% energy recovery end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	1.44E-01	1.63E-02	2.36E+00	0.00E+00	-1.69E+00
GWP-fossil	kg CO_2 eq.	1.44E-01	1.63E-02	2.36E+00	0.00E+00	-1.68E+00
GWP-biogenic	kg CO_2 eq.	6.19E-06	6.14E-07	3.03E-05	0.00E+00	-1.92E-03
GWP-luluc	kg CO_2 eq.	4.96E-06	4.00E-07	5.24E-06	0.00E+00	-2.38E-03
ODP	kg CFC 11 eq.	2.27E-09	3.33E-10	6.89E-10	0.00E+00	-5.21E-08
AP	mol H^+ eq.	1.35E-03	4.06E-05	4.80E-04	0.00E+00	-4.29E-03
EP-freshwater	kg P eq.	1.36E-07	1.37E-08	2.98E-07	0.00E+00	-7.35E-05
EP-marine	kg N eq.	6.33E-04	1.56E-05	2.42E-04	0.00E+00	-7.15E-04
EP-terrestrial	mol N eq.	6.93E-03	1.70E-04	2.47E-03	0.00E+00	-7.91E-03
POCP	kg NMVOC eq.	2.06E-03	7.08E-05	6.11E-04	0.00E+00	-3.50E-03
ADP-minerals & metals*	kg Sb eq.	6.02E-09	5.38E-10	1.13E-08	0.00E+00	-5.25E-08
ADP-fossil*	MJ	1.90E+00	0.00E+00	2.94E-01	0.00E+00	-3.31E+01
WDP*	m^3	2.47E-03	3.57E-05	1.13E-01	0.00E+00	0.00E+00

Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Additional mandatory and voluntary impact category indicators (100% energy recovery end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
GWP-GHG[2]	kg CO_2 eq.	1.44E-01	1.63E-02	2.36E+00	0.00E+00	-1.69E+00

[2] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.

Additional environmental impact indicators are not declared in this EPD. Detailed results for these indicators are available in the product's LCA Report, referenced in the Bibliography.

Waste indicators (100% energy recovery end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Radioactive waste disposed	kg	9.68E-08	2.02E-08	2.82E-07	0.00E+00	-1.33E-04

Output flow indicators (100% energy recovery end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	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
Material for recycling	kg	4.84E-08	5.24E-09	4.50E-03	0.00E+00	-1.26E-06
Materials for energy recovery	kg	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	8.66E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	1.71E+01	0.00E+00	0.00E+00

Resource use indicators (100% energy recovery end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
PERE	MJ	4.24E-03	7.61E-04	1.76E-02	0.00E+00	-4.30E+00
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	4.24E-03	7.61E-04	1.76E-02	0.00E+00	-4.30E+00
PENRE	MJ	1.90E+00	2.15E-01	2.94E-01	0.00E+00	-3.31E+01
PENRM	MJ	0.00E+00	0.00E+00	-2.57E+01	0.00E+00	0.00E+00
PENRT	MJ	1.90E+00	2.15E-01	-2.54E+01	0.00E+00	-3.31E+01
SM	kg	3.41E-06	1.07E-07	3.12E-05	0.00E+00	-6.03E-05
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	5.95E-05	5.52E-06	2.64E-03	0.00E+00	0.00E+00

Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

The results of the 100% recycling end-of-life scenario are shown below.

Mandatory impact category indicators according to EN 15804 (100% recycling end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	1.44E-01	1.24E-02	1.33E-02	0.00E+00	-9.90E-01
GWP-fossil	kg CO_2 eq.	1.44E-01	1.24E-02	1.33E-02	0.00E+00	-1.00E+00
GWP-biogenic	kg CO_2 eq.	6.19E-06	4.67E-07	1.37E-05	0.00E+00	1.24E-02
GWP-luluc	kg CO_2 eq.	4.96E-06	3.05E-07	1.70E-05	0.00E+00	-2.10E-04
ODP	kg CFC 11 eq.	2.27E-09	2.53E-10	0.00E+00	3.19E-10	0.00E+00
AP	mol H^+ eq.	1.35E-03	3.09E-05	0.00E+00	6.26E-05	0.00E+00
EP-freshwater	kg P eq.	1.36E-07	1.04E-08	0.00E+00	3.36E-08	0.00E+00
EP-marine	kg N eq.	6.33E-04	1.19E-05	0.00E+00	1.02E-04	0.00E+00
EP-terrestrial	mol N eq.	6.93E-03	1.30E-04	0.00E+00	2.89E-04	0.00E+00
POCP	kg NMVOC eq.	2.06E-03	5.39E-05	0.00E+00	1.32E-04	0.00E+00
ADP-minerals & metals*	kg Sb eq.	6.02E-09	4.10E-10	0.00E+00	4.20E-09	0.00E+00
ADP-fossil*	MJ	1.90E+00	1.64E-01	0.00E+00	2.19E-01	0.00E+00
WDP*	m^3	2.47E-03	1.72E-04	0.00E+00	0.00E+00	0.00E+00

Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

Additional mandatory and voluntary impact category indicators (100% recycling end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
GWP-GHG[3]	kg CO_2 eq.	1.44E-01	1.24E-02	1.33E-02	0.00E+00	-9.90E-01

[3] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.

Additional environmental impact indicators are not declared in this EPD. Detailed results for these indicators are available in the product's LCA Report, referenced in the Bibliography.

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Resource use indicators (100% recycling end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
PERE	MJ	4.24E-03	5.80E-04	0.00E+00	6.05E-03	0.00E+00
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	4.24E-03	5.80E-04	0.00E+00	6.05E-03	0.00E+00
PENRE	MJ	1.90E+00	1.64E-01	0.00E+00	2.19E-01	0.00E+00
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.90E+00	1.64E-01	0.00E+00	2.19E-01	0.00E+00
SM	kg	3.41E-06	8.14E-08	0.00E+00	1.93E-05	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	5.95E-05	4.21E-06	0.00E+00	0.00E+00	0.00E+00

Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Waste indicators (100% recycling end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Radioactive waste disposed	kg	9.68E-08	1.54E-08	0.00E+00	7.63E-08	0.00E+00

Output flow indicators (100% recycling end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	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
Material for recycling	kg	4.84E-08	3.99E-09	0.00E+00	4.80E-06	0.00E+00
Materials for energy recovery	kg	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
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

The results of the 100% landfill end-of-life scenario are shown below.

Mandatory impact category indicators according to EN 15804 (100% landfill end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	1.44E-01	1.24E-02	0.00E+00	9.08E-02	0.00E+00
GWP-fossil	kg CO_2 eq.	1.44E-01	1.24E-02	0.00E+00	9.08E-02	0.00E+00
GWP-biogenic	kg CO_2 eq.	6.19E-06	4.67E-07	0.00E+00	3.26E-06	0.00E+00
GWP-luluc	kg CO_2 eq.	4.96E-06	3.05E-07	0.00E+00	7.59E-07	0.00E+00
ODP	kg CFC 11 eq.	2.27E-09	2.53E-10	2.14E-10	0.00E+00	-5.20E-08
AP	mol H^+ eq.	1.35E-03	3.09E-05	8.92E-05	0.00E+00	-2.18E-03
EP-freshwater	kg P eq.	1.36E-07	1.04E-08	5.25E-07	0.00E+00	-8.86E-06
EP-marine	kg N eq.	6.33E-04	1.19E-05	3.28E-05	0.00E+00	-4.53E-04
EP-terrestrial	mol N eq.	6.93E-03	1.30E-04	3.60E-04	0.00E+00	-4.91E-03
POCP	kg NMVOC eq.	2.06E-03	5.39E-05	1.10E-04	0.00E+00	-5.81E-03
ADP-minerals & metals*	kg Sb eq.	6.02E-09	4.10E-10	6.26E-10	0.00E+00	-5.27E-08
ADP-fossil*	MJ	1.90E+00	1.64E-01	2.35E-01	0.00E+00	-3.50E+01
WDP*	m^3	2.47E-03	1.72E-04	4.25E-03	0.00E+00	0.00E+00

Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

Additional mandatory and voluntary impact category indicators (100% landfill end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
GWP-GHG[4]	kg CO_2 eq.	1.44E-01	1.24E-02	0.00E+00	9.08E-02	0.00E+00

[4] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.

Additional environmental impact indicators are not declared in this EPD. Detailed results for these indicators are available in the product's LCA Report, referenced in the Bibliography.

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Resource use indicators (100% landfill end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
PERE	MJ	4.24E-03	5.80E-04	3.04E-02	0.00E+00	-2.62E-01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	4.24E-03	5.80E-04	3.04E-02	0.00E+00	-2.62E-01
PENRE	MJ	1.90E+00	1.64E-01	2.35E-01	0.00E+00	-3.50E+01
PENRM	MJ	0.00E+00	0.00E+00	-4.25E+01	0.00E+00	0.00E+00
PENRT	MJ	1.90E+00	1.64E-01	-4.22E+01	0.00E+00	-3.50E+01
SM	kg	3.41E-06	8.14E-08	6.03E-07	0.00E+00	5.40E-01
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	5.95E-05	4.21E-06	1.09E-04	0.00E+00	0.00E+00

Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Waste indicators (100% landfill end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Radioactive waste disposed	kg	9.68E-08	1.54E-08	9.38E-07	0.00E+00	-8.39E-06

Output flow indicators (100% landfill end-of-life scenario)

Results per declared unit

INDICATOR	UNIT	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
Material for recycling	kg	4.84E-08	3.99E-09	1.00E+00	0.00E+00	2.09E-04
Materials for energy recovery	kg	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
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Cubis Systems
Product specification

STAKKAbox™ JMF*

*Network access chamber sections are measured by the inside measurement of the chamber ring section and this is referred to as the clear opening.

Chamber clear opening size*

LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	WEIGHT (KG)

Key information

EPDs are based on International Standards.

The concept of EPDs is based on the standard ISO 14025, which is internationally recognized and developed with in the International Organization for Standardization.

EPDs consider the full Life Cycle Assessment of goods and services

Compared to alternative reporting formats such as eco-labels and self-declared labels that only cover aspects of a lifecycle perspective, EPDs cover the full LCA of goods and services.

EPDs contain verified environmental information

The EPD is a third-party verified document which gives the information credibility and therefore is very suitable for procurement.

EPDs are based on a robust, transparent and open framework

ISO 14025 requires the programme operator to publish the programme instructions, product category rules and registered EPDs. The transparent framework makes it possible to understand the calculations and methods behind the results in the EPD.

EPDs gives comparable information within the same product group

EPDs that are based on the same product category rules (PCR) are comparable as the PCR set the rules for the life cycle assessment that the EPD must meet, for example allocation rules, data quality requirements and system boundaries.

Cubis' journey

2021
EPDs of 12 products

→

2025 update of EPDs of 12 product, 2 new products included

Cubis Systems
How to read the results

1. Global Warming Potential (GWP)

It measures the impact of greenhouse gases on global warming, expressed in kg of CO_2 equivalent. This indicator assesses how much a gas contributes to global warming compared to CO_2.

2. Ozone Depletion Potential (ODP)

It indicates the potential of a product to contribute to the depletion of the ozone layer, expressed in kg of CFC-11 equivalent. It measures the impact of chemicals that can damage the ozone layer.

3. Acidification Potential (AP)

It represents the potential of a product to cause acidification, expressed in kg of SO_2 equivalent. Assess the impact of acid emissions that can damage aquatic and terrestrial ecosystems.

4. Eutrophication Potential (EP)

It measures the potential of a product to contribute to eutrophication, expressed in kg of PO_4^{3-} equivalent. Assess the impact of nutrients that can alter aquatic ecosystems.

5. Photochemical Ozone Creation Potential (POCP)

It indicates the potential of a product to contribute to the formation of ground-level ozone, expressed in kg of ethane equivalent. It measures the impact of emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx) that can cause smog and respiratory problems.

6. Abiotic Depletion Potential (ADP) - Elements

It measures the depletion of abiotic (non-renewable) resources such as metals, expressed in kg of antimony equivalent. Assess the impact of mineral resource extraction and use.

7. Abiotic Depletion Potential (ADP) - Fossil Fuels

It measures the depletion of fossil resources, expressed in MJ. Assess the impact of extracting and using fossil fuels such as oil, natural gas, and coal.

8. Water Use

It measures the consumption of fresh water, expressed in m^3. Assess the impact of water use at different stages of the product lifecycle.

9. Land Use

It measures the impact of land use, expressed in m^2a (annual square meters). Assess the impact of land-use altering activities, such as agriculture and urbanization.

10. Particulate Matter Formation

It measures the formation of particulate matter, expressed in kg of PM2.5 equivalent. Assess the impact of fine particulate matter emissions that can cause respiratory and cardiovascular problems.

11. Ionizing Radiation

It measures exposure to ionizing radiation, expressed in kBq U235 equivalent. It assesses the impact of radioactive emissions on the environment and human health.

12. Ecotoxicity

It measures toxicity to aquatic and terrestrial ecosystems, expressed in CTUe (Comparative Toxic Unit for ecosystems). Assess the impact of toxic chemicals on living organisms.

13. Human Toxicity - Cancer Effects

It measures toxicity to humans with carcinogenic effects, expressed in CTUh (Comparative Toxic Unit for humans). It assesses the impact of carcinogenic chemicals on human health.

14. Human Toxicity - Non-Cancer Effects

It measures toxicity to humans with non-carcinogenic effects, expressed in CTUh. It assesses the impact of non-carcinogenic chemicals on human health.

15. Resource Use - Renewable Primary Energy

It measures the use of renewable primary energy, expressed in MJ. It assesses the impact of the use of renewable energy resources such as solar, wind, and hydropower.

16. Resource Use - Non-Renewable Primary Energy

It measures the use of non-renewable primary energy, expressed in MJ. Assess the impact of the use of non-renewable energy resources.

17. Resource Use - Secondary Materials

It measures the use of secondary (recycled) materials, expressed in kg. Assess the impact of using recycled materials in manufacturing processes.

18. Resource Use - Renewable Secondary Fuels

It measures the use of renewable secondary fuels, expressed in MJ. Assess the impact of the use of renewable fuels derived from waste materials.

19. Resource Use - Non-Renewable Secondary Fuels

It measures the use of non-renewable secondary fuels, expressed in MJ. Assess the impact of the use of non-renewable fuels derived from waste materials.

Organisation's overall work on environmental sustainability

Cubis is a member of Composites UK. Within this association, CUBIS participate in the Composites UK.

Sustainability & Construction Sub-Group with involvement in research projects to expand the recycling knowledge and capabilities of composites.

For further information on Cubis' Sustainability Report please see our website: www.cubis-systems.com

Cubis Systems
Abbreviations, references and additional information

Abbreviations

Abbreviaton	Definition
GENERAL ABBREVIATIONS	
EN	European Norm (Standard)
IES	International EPD System
EPD	Environmental Product Declaration
PCR	Product Category Rules
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CPC	Central product classification
SVHC	Substances of Very High Concern
ND	Not Declared
UK	United Kingdom
HDPE	High density polyethylene
LCIA	Life cycle impact assessment
LCI	Life cycle inventory
PL	Polyester
LHV	Lower heating value
QROut	Quality of the outgoing recovered material
QSub	Quality of the substituted material
DQA	Data quality assessment
BoM	Bill of material
LPG	Liquid petroleum gas
EoL	End-of-life

Version history

Original Version of the EPD, 2025-XX-XX

References

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2. PCR 2019:14. Construction products. Version 2.0.1, 2025-06-05
3. EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
4. ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations – Principles and procedures
5. ISO 14040:2006 Environmental management – Life cycle assessment – Principles and framework
6. ISO 14044:2006 Environmental management – Life cycle assessment - Requirements and guidelines
7. Studio Fieschi & soci Srl, Life Cycle Assessment (LCA) of Cubis Systems' products: STAKKAbox ULTIMA/ ULTIMA Connect, STAKKAbox Fortress, STAKKAbox Modula, RapidSTACK, MONObox Carson, AX-S Covers, CABLEprotect PROtrough and MMtrough, CABLEprotect RAILduct, CABLEprotect MULTIduct.
8. Ecoinvent 3.10
9. European Commission, 2018, Product Environmental Footprint Category Rules Guidance, Version 6.3
10. Eurostat, 2018, Recovery rate of construction and demolition waste.
11. Gervasio, H., Dimova, S., 2018, Model for Life Cycle Assessment (LCA) of buildings, EC JRC technical reports

Additional environmental information

Whether in the workplace, the marketplace, the community, or the environment, corporate responsibility matters to Cubis, and we show it through how we work and behave. At Cubis Systems, we manufacture our products using a variety of materials. We aim to create a closed-loop recycling system and a circular economy. We can achieve this by using as much recycled material as possible in our manufacturing process and ensuring our products are either recyclable or reusable wherever possible. We also take our responsibility to the environment seriously. We work hard to address the challenges of climate change both through product design and careful management of our production processes. By re-using materials, where possible, that would otherwise be disposed of as waste, we not only divert them from waste streams but also reduce the carbon footprint of our products and promote resource efficiency.

Additional social and economic information

Health and Safety is integrated into the company's business and operations fabric. We fully support the right of every employee to work in an environment that means we all go home safely at the end of each day.

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Cubis Systems is Europe's leading manufacturer of network access chamber and ducting systems

used in the construction of infrastructure networks for rail, telecoms, water, construction and energy markets.

Cubis has developed an innovative approach in a traditional industry. This has been achieved by developing quality products which replace traditional construction materials, like bricks and concrete, with lightweight plastics incorporating intelligent design features. These can then be installed faster and ultimately save our customers both time and money.

Cubis manufactures preformed network access chamber systems STAKKAbox™, AX-S™ access covers, MULTIduct™ multiple duct system and PROtrough cable trough at its manufacturing sites throughout the UK and Ireland these products are exported to more than 30 countries throughout the world.

At Cubis we pride ourselves on delivering technical customer support, new innovation, product quality and the highest levels of customer satisfaction.

Get in touch to discuss your project.

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