ENVIRONMENTAL PRODUCT DECLARATION

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

OptoLife 1000 / 1200

Pipelife Finland Oy

EPD HUB, HUB-3235
Published on 29.04.2025, last updated on 29.04.2025, valid until 28.04.2030

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Pipelife Finland Oy
Address	Kiviharjunlenkki 1 E
Contact details	asiakaspalvelu@pipelife.fi
Website	https://www.pipelife.fi/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Riikka Vaara
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Lucas Rodriguez, as an authorized verifier acting for EPD Hub Limited.

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	OptoLife 1000 / 1200
Additional labels	-
Product reference	70001444, 70001443
Place of production	Pipelife Finland Oy (Ii factory)
Period for data	Year 2024
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	%

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of chamber
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2,17E+00
GWP-total, A1-A3 ($kgCO_2e$)	1,93E+00
Secondary material, inputs (%)	0.29
Secondary material, outputs (%)	100
Total energy use, A1-A3 (kWh)	9.95
Net freshwater use, A1-A3 (m^3)	0.03

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Pipelife Finland Oy is one of the leading providers of Plastic construction solutions in Finland. The product range consists of plastic pipe, tank and chamber solutions, rainwater management, oil and sand separation solutions, wastewater treatment solutions, and solutions for energy and data network construction, as well as electric installations. Pipelife Finland solutions are used in construction in infrastructure, housing and industrial applications.

Pipelife Finland Oy employs about 250 employees in Finland. The company is part of leading global construction solution provider Wienerberger AG and its piping solution division WPS. It operates globally in 25 countries and provides piping solutions based on plastic and ceramic materials.
We are certified according to EN ISO 9001 Quality Management system and EN ISO 14001 Environmental Management system.

PRODUCT DESCRIPTION

Optolife jointing chambers are designed for implementing cable connections and storing cables. Optolife jointing chambers include ready-made inlets that can be easily opened without special tools. The jointing chambers are lightweight, easy to handle and quick to install, which lowers the installation costs. Optolife jointing chambers and covers (3 metric tons) are designed to withstand the most common loading norms when installed according to the instructions. Optolife jointing chambers have been designed in cooperation with partners based on network building requirements.

Technical information:
Bottom: 1000mmx1000mm, 1200mmx1200mm
Height: 600mm
Cover: 800mm

Standards:
EN 124

More informations:
https://catalog.pipelife.com/fi/articlelist/kaapelikaivot-181189/176203/pe-opto-chamber

Further information can be found at https://www.pipelife.fi/.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	-
Minerals	0	-
Fossil materials	100	EU
Bio-based materials	0	-

BIOGENIC CARBON CONTENT

Product’s biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.066

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of chamber
Mass per declared unit	1 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

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MANUFACTURING MATERIALS (A1)

The first module includes extraction and production of raw materials used in manufacturing process, mainly polyethylene powders, as well as additives used in small amounts. Environmental impact for production of packaging materials and auxiliary materials are also included in this module.

TRANSPORT FOR MANUFACTURING MATERIALS (A2)

Transport distances of materials to manufacturing site was modelled taking account location of suppliers and transportation routes. Raw materials are transported by lorry and by boat. Packaging materials and auxiliary tools are transported by lorry on the road.

MANUFACTURING PROCESS (A3)

The production method is a rotational moulding. The different stages are:

MATERIAL CONVEYING:

The raw material arrives in big bags (1000kg) which are emptied in the raw material silo.

The product is produced with a mould by rotational moulding:
First the raw material is inserted in the mould. Then the mould is taken into the over section of the rotation moulding machine. There the mould is continuously rotated around two axes, changing the direction of the rotation periodically. This ensures that the melting plastic forms an even layer along the entire inner surface of the mould.

COOLING:

After melting and moulding the raw material the mould goes into a cooling section. The cooling is done maintaining the same rotation methods as in the oven. The plastic inside cools and solidifies in the form of the mould. After cooling the mould is opened and the product is taken out.

FINISHING:

The moulded product is cut open to separate the cover from the frame. The cover is then bolted into the chamber frame.

PACKAGING:

The ready chambers are packed on a pallet by first wrapping them together with a plastic band and then wrapping the package with clingfilm.

DISPATCH:

After the final quality check, the products are sent to the ordered destination.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The average transport distance from the production plant to the building site is assumed to be 450 km, and the transport method is assumed to be a lorry. Transport does not cause losses, because products are packaged properly. During transportation there is not product or packaging loss. The installation accounts for the treatment of packaging 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.

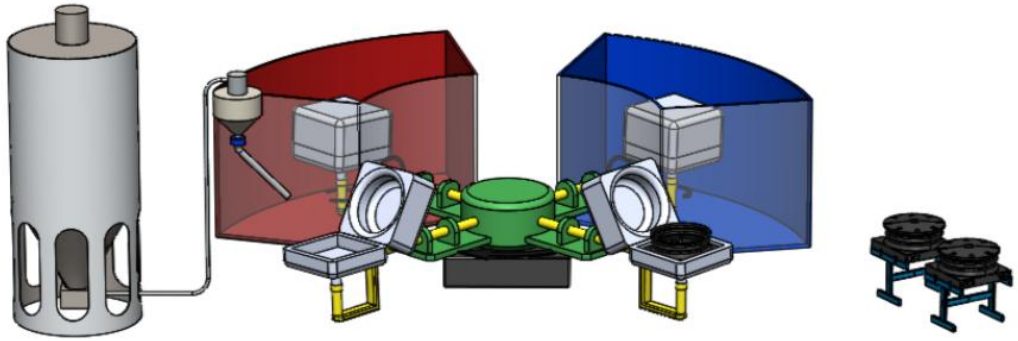
PRODUCT END OF LIFE (C1-C4, D)

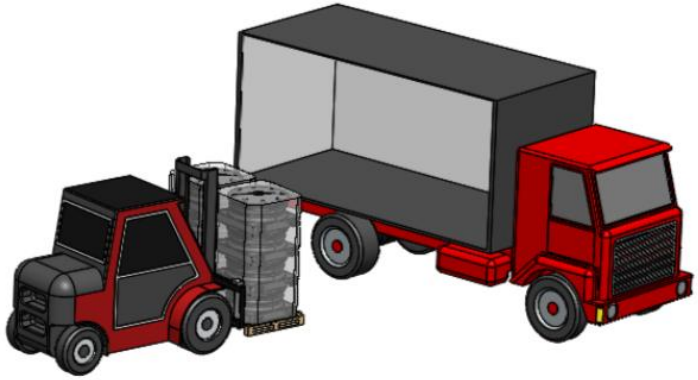
Since the consumption of energy and natural resources is negligible for disassembling the end-of-life product, the impacts of demolition are assumed to be zero (C1). The end-of-life product is assumed to be sent to the closest facilities by lorry, and the journey is assumed to be 50 km (C2).

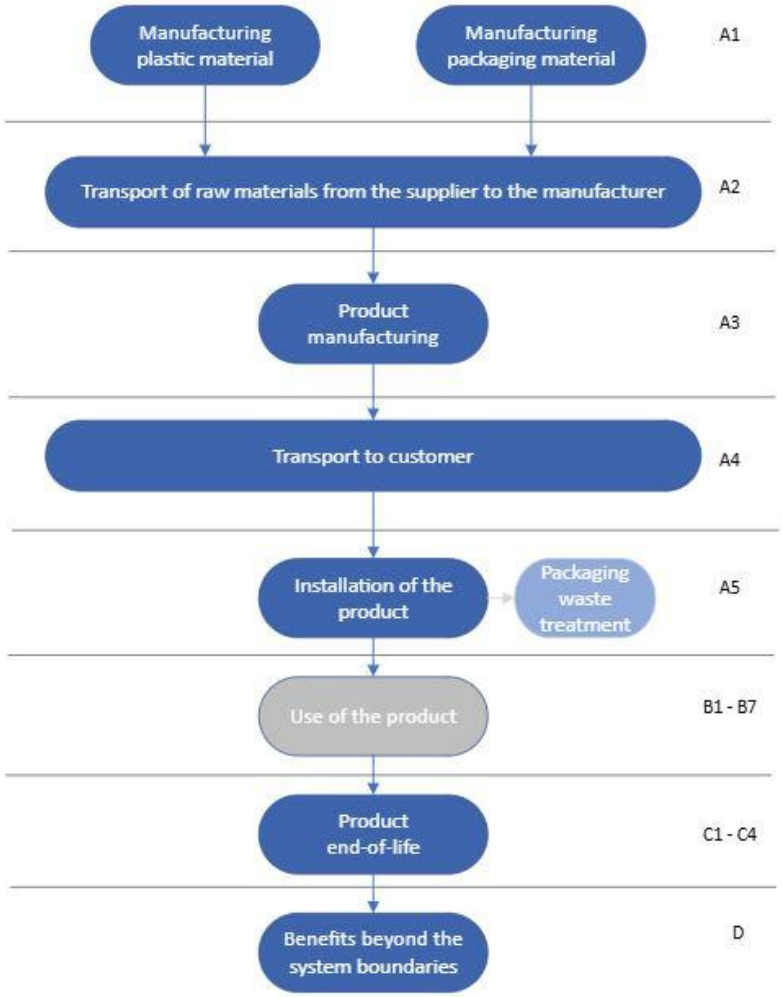
Old drainage chambers can be recycled, and the material reused after recycling. Hundred per cent, collected from the unloading site, is sent for recycling (C3).

Due to the recycling and incineration potential of Polyethylene, the end-of-life product is converted into recycled PE, while energy and heat are produced from its incineration (D). The benefits and loads of waste packaging materials in A5 are also considered in module D.

MANUFACTURING PROCESS






Manufacturing plastic material
Manufacturing packaging material
A1
Transport of raw materials from the supplier to the manufacturer
A2
Product manufacturing
A3
Transport to customer
A4
Installation of the product
Packaging waste treatment
A5
Use of the product
B1 - B7
Product end-of-life
C1 - C4
Benefits beyond the system boundaries
D

LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging material	No allocation
Ancillary materials	No applicable
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	No applicable
Variation in GWP-fossil for A1-A3	-

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.8, Plastics Europe, Federal LCA Commons and One Click LCA databases as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	1,99E+00	1,16E-01	-1,78E-01	1,93E+00	4,79E-02	6,09E-01	MND	MND	MND	MND	MND	MND	MND	1,07E-02	0,00E+00	1,67E-01	0,00E+00	-2,27E+00
GWP – fossil	kg CO_2e	1,99E+00	1,16E-01	6,39E-02	2,17E+00	4,79E-02	3,67E-01	MND	MND	MND	MND	MND	MND	MND	1,07E-02	0,00E+00	1,67E-01	0,00E+00	-2,44E+00
GWP – biogenic	kg CO_2e	0,00E+00	0,00E+00	-2,42E-01	-2,42E-01	0,00E+00	2,42E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,73E-01
GWP – LULUC	kg CO_2e	6,00E-04	5,06E-05	2,34E-04	8,84E-04	1,72E-05	1,38E-04	MND	MND	MND	MND	MND	MND	MND	1,33E-06	0,00E+00	1,02E-04	0,00E+00	-3,85E-03
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	4,27E-08	2,63E-08	6,90E-09	7,59E-08	1,14E-08	8,39E-08	MND	MND	MND	MND	MND	MND	MND	2,28E-09	0,00E+00	3,41E-09	0,00E+00	-1,34E-07
Acidification potential	mol H^+e	7,07E-03	8,99E-04	3,76E-04	8,34E-03	2,00E-04	1,55E-03	MND	MND	MND	MND	MND	MND	MND	1,09E-04	0,00E+00	2,74E-04	0,00E+00	-1,89E-02
EP-freshwater[2)]	kg Pe	3,05E-05	7,62E-07	3,59E-06	3,49E-05	3,28E-07	3,14E-06	MND	MND	MND	MND	MND	MND	MND	5,42E-08	0,00E+00	2,17E-06	0,00E+00	-9,63E-05
EP-marine	kg Ne	1,23E-03	2,43E-04	9,32E-05	1,56E-03	6,05E-05	4,60E-04	MND	MND	MND	MND	MND	MND	MND	4,76E-05	0,00E+00	7,96E-05	0,00E+00	-2,23E-03
EP-terrestrial	mol Ne	1,34E-02	2,69E-03	1,00E-03	1,71E-02	6,67E-04	5,08E-03	MND	MND	MND	MND	MND	MND	MND	5,22E-04	0,00E+00	8,34E-04	0,00E+00	-2,62E-02
POCP ("smog")[3)]	kg NMVOCe	6,62E-03	7,60E-04	3,87E-04	7,77E-03	2,15E-04	1,62E-03	MND	MND	MND	MND	MND	MND	MND	1,44E-04	0,00E+00	2,54E-04	0,00E+00	-7,24E-03
ADP-minerals & metals[4)]	kg Sbe	1,35E-05	0,00E+00	1,16E-06	1,47E-05	0,00E+00	7,45E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	9,78E-07	0,00E+00	-2,15E-06
ADP-fossil resources	MJ	6,99E+01	0,00E+00	1,17E+00	7,10E+01	0,00E+00	3,08E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	4,97E-01	0,00E+00	-3,09E+01
Water use[5)]	m^3e depr.	9,48E-01	7,49E-03	5,04E-02	1,01E+00	3,38E-03	2,54E-02	MND	MND	MND	MND	MND	MND	MND	5,55E-04	0,00E+00	2,16E-02	0,00E+00	-3,77E-01

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	7,06E-08	9,18E-09	5,46E-09	8,53E-08	5,63E-09	4,21E-08	MND	MND	MND	MND	MND	MND	MND	2,89E-09	0,00E+00	7,46E-09	0,00E+00	-1,79E-07
Ionizing radiation[6]	kBq U235e	1,32E-01	8,71E-03	6,86E-03	1,47E-01	3,78E-03	2,69E-02	MND	MND	MND	MND	MND	MND	MND	6,71E-04	0,00E+00	5,34E-03	0,00E+00	-6,10E-01
Ecotoxicity (freshwater)	CTUe	1,09E+01	1,36E+00	1,62E+00	1,39E+01	6,09E-01	4,95E+00	MND	MND	MND	MND	MND	MND	MND	9,54E-02	0,00E+00	1,48E+00	0,00E+00	-5,76E+01
Human toxicity, cancer	CTUh	5,95E-10	4,75E-11	4,04E-10	1,05E-09	1,61E-11	1,23E-10	MND	MND	MND	MND	MND	MND	MND	5,43E-12	0,00E+00	2,26E-10	0,00E+00	-7,76E-10
Human tox. non-cancer	CTUh	1,28E-08	1,34E-09	1,71E-09	1,58E-08	6,45E-10	4,90E-09	MND	MND	MND	MND	MND	MND	MND	7,00E-11	0,00E+00	1,82E-09	0,00E+00	-2,38E-08
SQP[7]	-	1,84E+00	1,08E+00	1,99E+01	2,28E+01	8,54E-01	6,32E+00	MND	MND	MND	MND	MND	MND	MND	1,96E-02	0,00E+00	9,57E-01	0,00E+00	-2,13E+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	1,18E+00	2,28E-02	4,58E+00	5,78E+00	9,49E-03	6,69E-02	MND	MND	MND	MND	MND	MND	MND	1,22E-03	0,00E+00	5,93E-02	0,00E+00	-6,59E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	2,12E+00	2,12E+00	0,00E+00	-2,12E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renew. PER	MJ	1,18E+00	2,28E-02	6,70E+00	7,90E+00	9,49E-03	-2,06E+00	MND	MND	MND	MND	MND	MND	MND	1,22E-03	0,00E+00	5,93E-02	0,00E+00	-6,59E+00
Non-re. PER as energy	MJ	2,74E+01	1,69E+00	8,77E-01	3,00E+01	7,33E-01	5,51E+00	MND	MND	MND	MND	MND	MND	MND	1,44E-01	0,00E+00	4,97E-01	0,00E+00	-3,09E+01
Non-re. PER as material	MJ	4,25E+01	0,00E+00	2,97E-01	4,28E+01	0,00E+00	-2,97E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-2,12E+01	-2,12E+01	0,00E+00
Total use of non-re. PER	MJ	6,99E+01	1,69E+00	1,17E+00	7,27E+01	7,33E-01	5,21E+00	MND	MND	MND	MND	MND	MND	MND	1,44E-01	0,00E+00	-2,07E+01	-2,12E+01	-3,09E+01
Secondary materials	kg	2,93E-03	5,88E-04	9,26E-03	1,28E-02	2,07E-04	1,54E-03	MND	MND	MND	MND	MND	MND	MND	1,02E-04	0,00E+00	3,31E-03	0,00E+00	-2,32E-03
Renew. secondary fuels	MJ	2,68E-05	5,76E-06	7,17E-02	7,17E-02	1,82E-06	1,55E-05	MND	MND	MND	MND	MND	MND	MND	1,98E-07	0,00E+00	2,70E-05	0,00E+00	-1,51E-05
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	2,45E-02	2,01E-04	1,18E-03	2,59E-02	9,72E-05	7,36E-04	MND	MND	MND	MND	MND	MND	MND	1,11E-05	0,00E+00	5,36E-04	0,00E+00	-2,44E-02

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	4,64E-02	1,94E-03	8,42E-03	5,68E-02	7,86E-04	7,42E-03	MND	MND	MND	MND	MND	MND	MND	2,90E-04	0,00E+00	1,08E-02	0,00E+00	-1,91E-01
Non-hazardous waste	kg	1,30E+00	3,20E-02	9,92E-02	1,43E+00	1,37E-02	1,26E-01	MND	MND	MND	MND	MND	MND	MND	2,10E-03	0,00E+00	1,56E-01	0,00E+00	-7,82E+00
Radioactive waste	kg	4,15E-05	1,17E-05	3,29E-06	5,64E-05	5,05E-06	3,68E-05	MND	MND	MND	MND	MND	MND	MND	9,79E-07	0,00E+00	2,27E-06	0,00E+00	-1,74E-04

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,77E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	1,00E+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	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	1,89E+00	1,15E-01	6,21E-02	2,07E+00	4,74E-02	3,63E-01	MND	MND	MND	MND	MND	MND	MND	1,06E-02	0,00E+00	1,65E-01	0,00E+00	-2,40E+00
Ozone depletion Pot.	kg CFC_{-11}e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acidification	kg SO_2e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Eutrophication	kg PO_4^3e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
POCP (“smog”)	kg C_2H_4e	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ADP-elements	kg Sbe	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ADP-fossil	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	1,99E+00	1,16E-01	6,41E-02	2,17E+00	4,79E-02	3,67E-01	MND	MND	MND	MND	MND	MND	MND	1,07E-02	0,00E+00	1,67E-01	0,00E+00	-2,45E+00

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

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

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

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

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

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

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

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

Lucas Rodriguez, as an authorized verifier acting for EPD Hub Limited.
29.04.2025