

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Sistema Colector - Grids and covers:

- 027098 & 027100 - S-1000 Ductile iron top register access grid set
- 027099 & 027101 - S-2000 Ductile iron top register access cover set

Aliaxis



EPD HUB, HUB-3422

Publishing date 7 June 2025, last updated on 7 June 2025, valid until 7 June 2030.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Aliaxis
Address	Calle del Yen s/n - Poligono Las Atalayas - 03114 Alicante, Spain
Contact details	info@aliaxis.es
Website	www.jimten.com

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 1.1, 5 Dec 2023
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	Lemonnier Elisa - Aliaxis
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	Magaly González Vázquez, 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	Sistema Colector – Grids and covers: 027098 & 027100 - S-1000 Ductile iron top register access grid set 027099 & 027101 - S-2000 Ductile iron top register access cover set
Additional labels	-
Product reference	-
Place of production	Alicante, Spain
Period for data	01/01/2024 - 31/12/2024
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	4.5 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit
Declared unit mass	10.462 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	3.29E+01
GWP-total, A1-A3 (kgCO ₂ e)	3.21E+01
Secondary material, inputs (%)	40.9
Secondary material, outputs (%)	85.1
Total energy use, A1-A3 (kWh)	167
Net freshwater use, A1-A3 (m ³)	0.22

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Aliaxis is a global leader in advanced plastic piping systems for industrial, building, infrastructure and agriculture applications. For each of these segments, we offer a comprehensive range of high quality products and solutions that meet our customers' most demanding needs across the globe.

Aliaxis, with a global workforce of about 15,500 employees, is active through leading local brands and operates in over 40 countries, combining local solutions with global innovation and operational excellence.

Aliaxis supplies installers and technicians worldwide with products and solutions to get projects up and running in an easy and reliable way. We aim to add value for the end-users: people in their homes, farmers, industries, and governments. Whatever the challenges in terms of size, volume or height, whatever the constraints in industrial, infrastructure projects or with irrigation requirements on agricultural land, we always strive to offer the appropriate products and solutions.

PRODUCT DESCRIPTION

Aliaxis Sistema Colector is a modular system of prefabricated PVC inspection chambers that helps build the underground sewage network for wastewater disposal. The system comprises inspection chamber bodies of Ø250- Ø315- Ø400 with connections of Ø110/ / Ø160 / Ø200, fittings, covers, and grids with load classification up to D400.

PVC has great chemical resistance to the agents contained in wastewater and most salts and acids, thus maintaining unaltered its physical properties over time and ensuring correct functioning throughout time for the installation. It is also highly resistant to rodents and microorganisms.

Sistema Colector complies with the minimum dimensions of the standards UNE-EN 13598 1 and 2 for maintenance of the installation from the surface using mechanical or pressurized water cleaning equipment and inspecting it using mobile cameras.

Sistema Colector reduces the project's final cost by reducing the installation time due to its quick and easy assembly. It is low weight, facilitating handling and transport.

Sistema Colector installed with standardized pipes offers perfect water tightness, thanks to its joints by gluing or NBR gaskets, adapting and absorbing the movements of the ground and thus avoiding possible breaks and preventing the penetration of roots, as well as the infiltration of groundwater and the contamination of the soil and aquifers due to leaks.

Its modular format allows for perfect execution of the slope of the pipes in between inspection chambers as per the drawings, and using the extension pipe it can be installed with the precise length to reach the surface floor. Its internal walls are smooth and its interior shape hydrodynamic, maintaining the water flow and avoiding blockages and deposits, which prevents the sedimentation of solids and ensures the underground network runs smoothly with the right hydraulic flows.

This EPD is based on an average of multiple products. The products are manufactured at the same plant. The manufacturing process and main raw materials are similar for all products.

The average includes the following grids and covers from the Sistema Colector range:

- 027098 & 027100 : S-1000 Ductile iron top register access grid set, with epoxy-polyester treatment
- 027099 & 027101 : S-2000 Ductile iron top register access cover set, with epoxy-polyester treatment

Further information can be found at www.jimten.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	Europe
Minerals	0	-
Fossil materials	0	-
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	0.294

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit
Mass per declared unit	10.462 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	Deconstr./demol.	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.

Products in the Sistema Colector range are composed of cast-iron parts. Products are shipped on wooden pallets.

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 transportation distance from production to the building site corresponds to an average transport distance based on Aliaxis sales. The transportation method used is lorry. The packaging waste are taken into account in the installation section (A5).

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

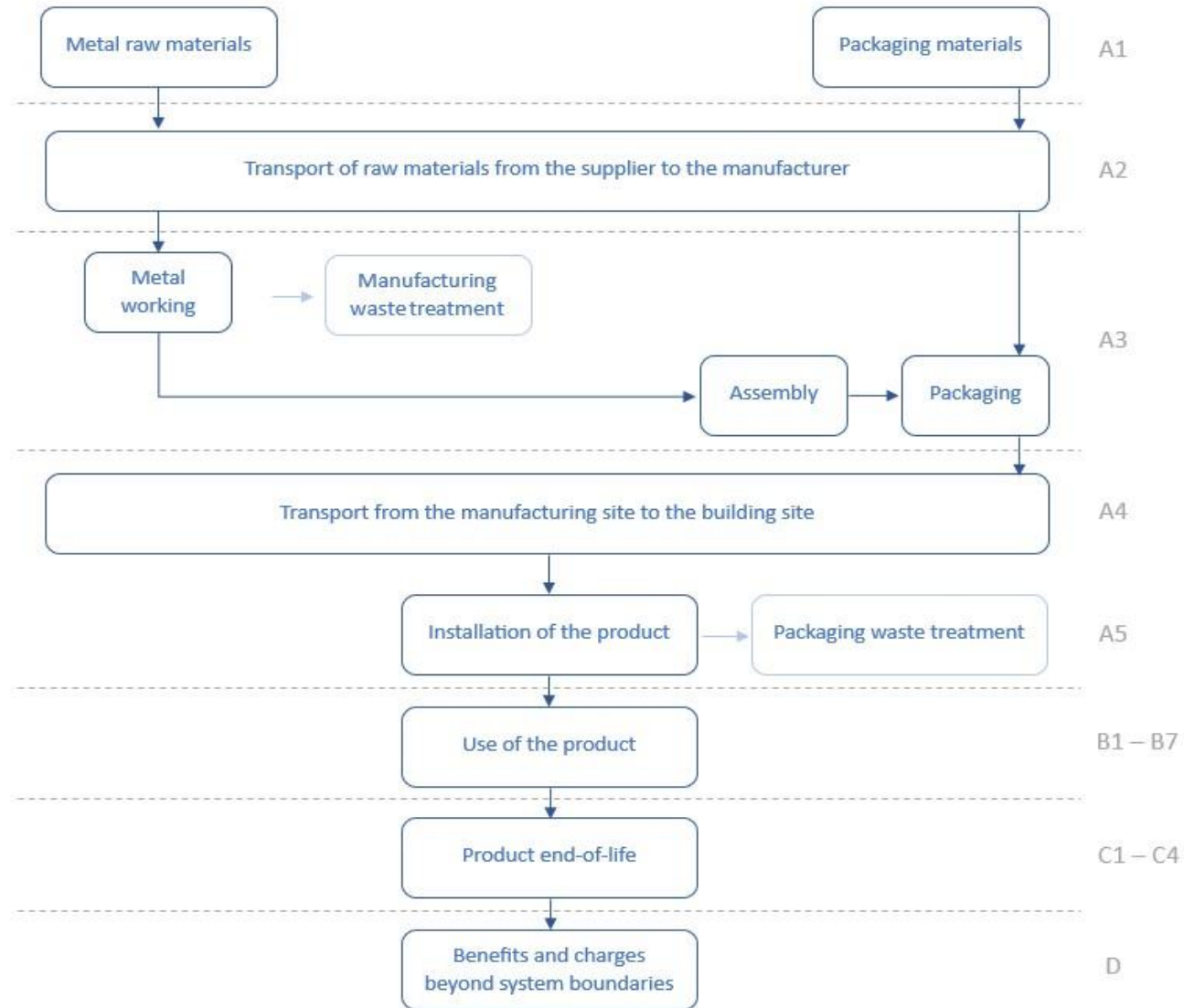
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

The end-of-life product materials are transported by lorry to several facilities: a recycling facility 800 km from the demolition site, an incineration facility 150 km away and a landfill facility 50 km away (C2). The cast iron is collected from the demolition site : 85% is recycled and 15% is landfilled.

The benefits and loads of cast iron recycling are considered in module D. The energy and heat produced by the incineration of waste packaging materials are also taken into account in module D.

FLOW DIAGRAM



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

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

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

AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Averaged partially by shares of total mass and by revenue
Variation in GWP-fossil for A1-A3	4.5 %

This EPD is based on an average of multiple products. The products are manufactured at the same plant. The manufacturing process and main raw materials are similar for all products.

The average includes the following products :

- 027098 & 027100 : S-1000 Ductile iron top register access grid set, with epoxy-polyester treatment
- 027099 & 027101 : S-2000 Ductile iron top register access cover set, with epoxy-polyester treatment

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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO ₂ e	1,98E+01	0,00E+00	1,24E+01	3,21E+01	5,03E-01	8,69E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,75E-01	0,00E+00	8,27E-03	-1,22E+01
GWP – fossil	kg CO ₂ e	1,97E+01	0,00E+00	1,31E+01	3,29E+01	5,03E-01	1,46E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,75E-01	0,00E+00	8,26E-03	-4,61E+00
GWP – biogenic	kg CO ₂ e	0,00E+00	0,00E+00	-8,54E-01	-8,54E-01	0,00E+00	8,54E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,62E+00
GWP – LULUC	kg CO ₂ e	1,62E-02	0,00E+00	1,04E-01	1,20E-01	1,86E-04	7,18E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,49E-04	0,00E+00	7,80E-06	5,90E-03
Ozone depletion pot.	kg CFC-11e	9,88E-07	0,00E+00	8,32E-07	1,82E-06	1,16E-07	3,01E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,55E-07	0,00E+00	3,34E-09	-2,15E-07
Acidification potential	mol H ⁺ e	8,24E-02	0,00E+00	1,11E-01	1,94E-01	2,13E-03	9,58E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,86E-03	0,00E+00	7,77E-05	-2,05E-02
EP-freshwater ²⁾	kg Pe	8,66E-04	0,00E+00	5,69E-04	1,43E-03	4,12E-06	1,70E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,52E-06	0,00E+00	8,66E-08	-1,60E-05
EP-marine	kg Ne	1,79E-02	0,00E+00	1,67E-02	3,46E-02	6,33E-04	4,37E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,49E-04	0,00E+00	2,69E-05	2,36E-03
EP-terrestrial	mol Ne	2,02E-01	0,00E+00	1,85E-01	3,87E-01	6,98E-03	3,88E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,37E-03	0,00E+00	2,96E-04	-5,38E-02
POCP (“smog”) ³⁾	kg NMVOCe	9,08E-02	0,00E+00	5,00E-02	1,41E-01	2,23E-03	1,14E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,00E-03	0,00E+00	8,60E-05	-3,20E-02
ADP-minerals & metals ⁴⁾	kg Sbe	2,48E-05	0,00E+00	3,82E-05	6,30E-05	1,18E-06	3,85E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,58E-06	0,00E+00	1,90E-08	1,87E-05
ADP-fossil resources	MJ	2,16E+02	0,00E+00	3,04E+02	5,19E+02	7,55E+00	2,20E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,01E+01	0,00E+00	2,26E-01	-6,81E+01
Water use ⁵⁾	m ³ e depr.	3,77E+00	0,00E+00	5,37E+00	9,15E+00	3,38E-02	1,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,53E-02	0,00E+00	7,19E-04	5,43E+00

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

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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1,88E-06	0,00E+00	3,08E-07	2,19E-06	5,80E-08	1,83E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,78E-08	0,00E+00	1,56E-09	-2,33E-07
Ionizing radiation ⁶⁾	kBq U235e	8,24E-01	0,00E+00	9,22E+00	1,00E+01	3,60E-02	9,77E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,83E-02	0,00E+00	1,02E-03	-9,23E-01
Ecotoxicity (freshwater)	CTUe	5,59E+02	0,00E+00	2,11E+02	7,70E+02	6,80E+00	2,33E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,12E+00	0,00E+00	1,48E-01	-2,30E+00
Human toxicity, cancer	CTUh	2,73E-07	0,00E+00	6,08E-09	2,79E-07	1,67E-10	1,45E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,24E-10	0,00E+00	3,69E-12	-1,84E-08
Human tox. non-cancer	CTUh	3,59E-06	0,00E+00	1,70E-07	3,76E-06	6,73E-09	6,41E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,02E-09	0,00E+00	9,66E-11	-1,95E-06
SQP ⁷⁾	-	5,42E+01	0,00E+00	1,11E+02	1,65E+02	8,70E+00	3,13E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,17E+01	0,00E+00	4,85E-01	-1,96E+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	9,28E+00	0,00E+00	7,33E+01	8,26E+01	8,51E-02	3,34E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,14E-01	0,00E+00	1,97E-03	-4,52E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	7,48E+00	7,48E+00	0,00E+00	-7,48E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,67E+01
Total use of renew. PER	MJ	9,28E+00	0,00E+00	8,08E+01	9,01E+01	8,51E-02	-7,48E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,14E-01	0,00E+00	1,97E-03	6,22E+01
Non-re. PER as energy	MJ	2,16E+02	0,00E+00	3,03E+02	5,19E+02	7,56E+00	2,20E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,01E+01	0,00E+00	2,27E-01	-6,80E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	4,94E-01	4,94E-01	0,00E+00	-4,94E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,28E+00
Total use of non-re. PER	MJ	2,16E+02	0,00E+00	3,04E+02	5,20E+02	7,56E+00	-2,74E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,01E+01	0,00E+00	2,27E-01	-6,38E+01
Secondary materials	kg	4,28E+00	0,00E+00	5,81E-02	4,34E+00	2,10E-03	1,27E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,81E-03	0,00E+00	4,76E-05	4,02E+00
Renew. secondary fuels	MJ	1,31E-03	0,00E+00	2,52E-01	2,54E-01	2,12E-05	1,42E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,84E-05	0,00E+00	1,24E-06	-7,50E-02
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	9,22E-02	0,00E+00	1,28E-01	2,20E-01	9,79E-04	4,08E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,31E-03	0,00E+00	2,48E-04	-1,95E-01

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	3,73E+00	0,00E+00	1,48E+00	5,21E+00	1,00E-02	1,65E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,34E-02	0,00E+00	0,00E+00	3,42E-01
Non-hazardous waste	kg	3,37E+01	0,00E+00	2,26E+01	5,63E+01	1,65E-01	4,93E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,21E-01	0,00E+00	1,57E+00	-1,55E+01
Radioactive waste	kg	4,03E-04	0,00E+00	2,35E-03	2,75E-03	5,05E-05	8,35E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,78E-05	0,00E+00	0,00E+00	-2,41E-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	1,05E+00	1,05E+00	0,00E+00	4,20E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	1,78E+01	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,75E+01	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 ₂ e	1,88E+01	0,00E+00	1,30E+01	3,18E+01	4,98E-01	3,18E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,68E-01	0,00E+00	8,09E-03	-4,16E+00
Ozone depletion Pot.	kg CFC ₁₁ e	9,81E-07	0,00E+00	6,99E-07	1,68E-06	9,16E-08	2,40E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,23E-07	0,00E+00	2,64E-09	-2,93E-07
Acidification	kg SO ₂ e	6,65E-02	0,00E+00	9,41E-02	1,61E-01	1,65E-03	7,12E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,22E-03	0,00E+00	5,87E-05	-1,64E-02
Eutrophication	kg PO ₄ ³ e	3,01E-02	0,00E+00	2,19E-02	5,21E-02	3,77E-04	8,12E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,06E-04	0,00E+00	1,27E-05	-4,72E-03
POCP (“smog”)	kg C ₂ H ₄ e	9,61E-03	0,00E+00	3,50E-03	1,31E-02	6,46E-05	6,41E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,67E-05	0,00E+00	2,46E-06	-4,73E-03
ADP-elements	kg Sbe	2,37E-05	0,00E+00	3,81E-05	6,18E-05	1,14E-06	3,65E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,53E-06	0,00E+00	1,87E-08	1,82E-05
ADP-fossil	MJ	2,16E+02	0,00E+00	3,04E+02	5,19E+02	7,55E+00	2,20E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,01E+01	0,00E+00	2,26E-01	-6,81E+01

ENVIRONMENTAL IMPACTS – FRENCH NATIONAL COMPLEMENTS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-elements	kg Sbe	2,37E-05	0,00E+00	3,81E-05	6,18E-05	1,14E-06	3,65E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,53E-06	0,00E+00	1,87E-08	1,82E-05
Hazardous waste disposed	kg	3,73E+00	0,00E+00	1,48E+00	5,21E+00	1,00E-02	1,65E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,34E-02	0,00E+00	0,00E+00	3,42E-01
Non-haz. waste disposed	kg	3,37E+01	0,00E+00	2,26E+01	5,63E+01	1,65E-01	4,93E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,21E-01	0,00E+00	1,57E+00	-1,55E+01
Air pollution	m ³	9,52E+03	0,00E+00	7,52E+03	1,70E+04	9,02E+01	3,07E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,21E+02	0,00E+00	1,82E+00	-3,06E+03
Water pollution	m ³	1,14E+02	0,00E+00	4,96E+01	1,64E+02	5,32E-01	6,03E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,14E-01	0,00E+00	1,20E-02	-5,05E+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 ₂ e	1,98E+01	0,00E+00	1,32E+01	3,30E+01	5,03E-01	1,46E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,75E-01	0,00E+00	8,27E-03	-4,60E+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.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited
07.06.2025

