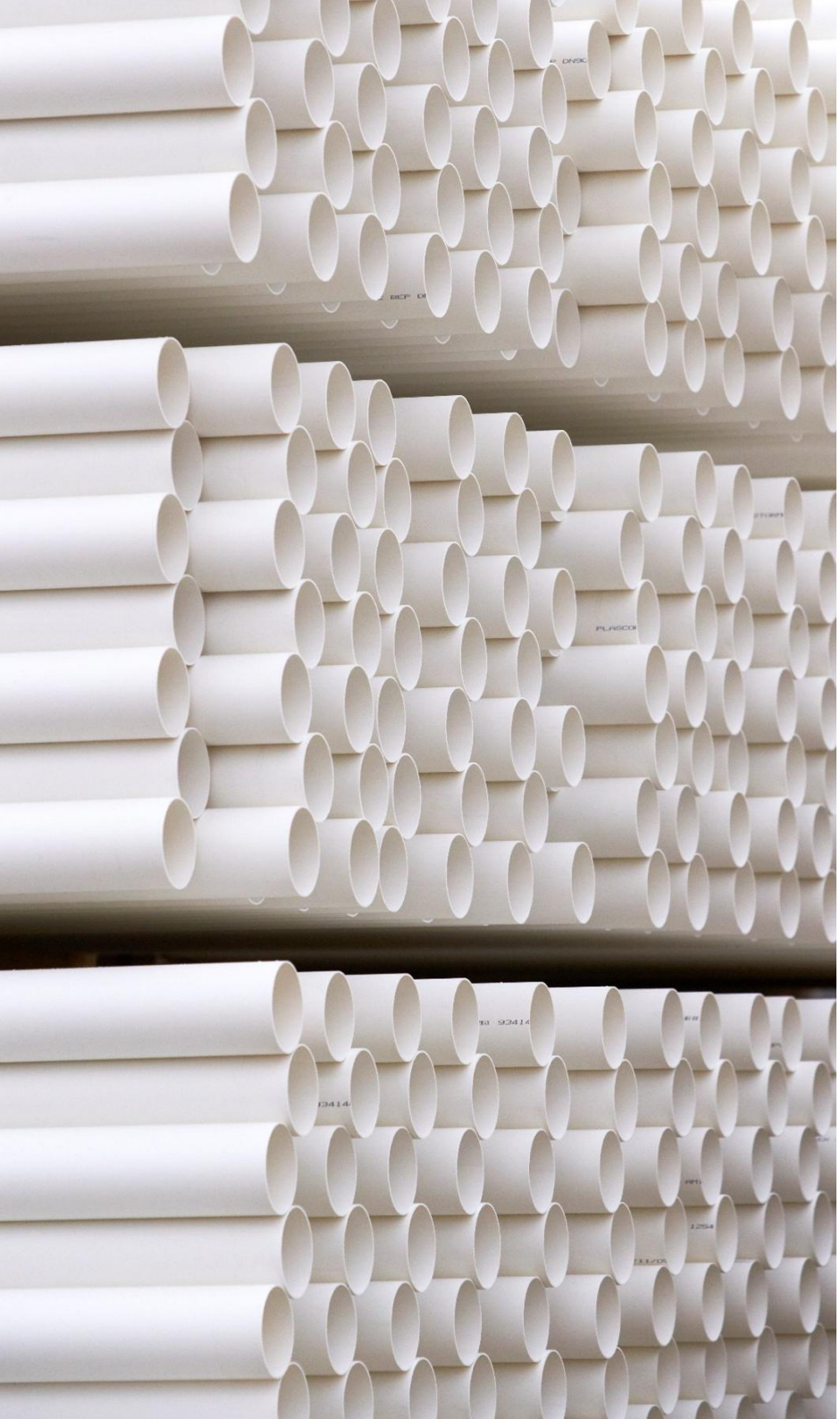


ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

PVC-U PRESSURE PIPE

Plascorp

EPD HUB, HUB-3531

Publishing date 28 June 2025, last updated on 28 June 2025, valid until 27 June 2030.

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Plascorp
Address	45 Chambers Rd Altona North, Melbourne VIC 3025, Australia
Contact details	contact@plascorp.com.au
Website	www.plascorp.com.au

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 EN 16903 Product Category Rules (PCR) for buried plastics piping systems
Sector	Manufactured product
Category of EPD	Third party verified EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with options, A5, and modules C1-C4, D
EPD author	Rohann J Chapman, C6 ESG
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

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	PVC-U PRESSURE PIPE
Additional labels	Rubber Ring Joint (RRJ)Solvent Weld Joint (SWJ)
Product reference	PN6, PN9. PN12, PN18
Place(s) of raw material origin	Taiwan, Indonesia, Australia
Place of production	45 Chambers Rd Altona North, Melbourne VIC 3025, Australia
Place(s) of installation and use	Australia & New Zealand
Period for data	1/01/2023 to /31/12/2023
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	0
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	8,36

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	3,61E+00
GWP-total, A1-A3 ($kgCO_2e$)	3,42E+00
Secondary material, inputs (%)	1,52
Secondary material, outputs (%)	0
Total energy use, A1-A3 (kWh)	13,3
Net freshwater use, A1-A3 (m^3)	0,03

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

For over 60 years, Plascorp has been manufacturing and supplying PVC pipes, composite hoses, steel reinforcement, ventilation, and ducting to various industries across Australia. What sets Plascorp apart is its ability to customise and tailor solutions to meet the unique challenges of its customers. The company's head office and manufacturing centre in Altona North began operations in 1961 and has since expanded to over three hectares, accommodating the continual evolution of its manufacturing capabilities and product customisation services. In 2002, Plascorp opened a second major distribution centre in Perth, now located in Bassendean, servicing a broad customer base along the west coast. Additional distribution centres were established in Brisbane in 2010, now located in Northgate, and in St Mary's, Sydney, in 2020. Beyond Australia, Plascorp has developed a robust export market for a range of its products, supplying to New Zealand, Southeast Asia, South Africa, and the Middle East. Plascorp is an associate member of several industry groups, including the Australian Chamber of Manufacturers, the Association for Hose and Accessories Distribution (NAHAD), and the National Precast Concrete Association of Australia.

PRODUCT DESCRIPTION

PVC pressure pipes are manufactured in accordance to AS-1477 from PVC resin compounded with stabilisers, lubricants and pigments. They do not contain any plasticisers and hence are known as unplasticised PVC or PVC-U. Material stability, corrosion resistance, and high strength to weight ratio, easy to handle & install. Excellent flow characteristics The EPD includes all PVC-U Pressure Pipe with two types of end treatments, Rubber Ring Joint (RRJ) and Solvent Weld Joint (SWJ). The product range is produced from a homogeneous raw material blend and extruded in different diameters and wall sections at a constant extrusion rate (Kg/Hour). The results have been developed utilising production inputs over the defined period (12 months).

Further information can be found at:
www.plascorp.com.au

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	-
Minerals	5,9	TiO_2 and $CaCO_3$ are both classified as mineral-based.
Fossil materials	94,11	PVC resin, stabilisers, and waxes are derived from fossil fuels.
Bio-based materials	-	-

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	0,056

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	Kg
Mass per declared unit	1 kg
Functional unit	-
Reference service life	60 years

SUBSTANCES, REACH - VERY HIGH CONCERN

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

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

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

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
×	×	×	MND	×	MND	MND	MND	MND	MND	MND	MND	×	×	×	×	×		
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.

A market-based approach is used in modelling the electricity mix utilized in the factory.

PVC pressure pipes are manufactured in accordance with AS 1477, using PVC resin compounded with stabilisers, lubricants, and pigments. These pipes do not contain any plasticisers and are therefore classified as unplasticised PVC, or PVC-U. PVC-U pipes are known for their material stability, corrosion resistance, and high strength-to-weight ratio. They are easy to handle and install. PVC-U Pressure Pipe also provides excellent flow characteristics.

This Environmental Product Declaration (EPD) covers all PVC-U pressure pipes with two types of end treatments: Rubber Ring Joint (RRJ) and Solvent Weld Joint (SWJ). The data set is linearly scaled and proportionately attributed based on the unit. All PVC-U Pressure Pipe is made from a homogeneous blend of raw materials and extruded into various diameters and wall thicknesses at a consistent extrusion rate (kg/hour).

Packaging includes timber and strapping to protect products during delivery, with many components reused or recycled. Production losses are approximately 4%, most of which is recycled into lower-grade non-pressure products. Any unusable waste is sent to a local landfill 29.3 km from the Altona manufacturing facility.

The environmental impacts reported in this EPD are based on a representative product selected from the range of PVC-U pressure pipes manufactured at Plascorp's Altona facility in accordance with AS/NZS 1477.

This standard specifies requirements for PVC-U pipes used for pressure applications, including water supply and industrial uses. The representative product was selected based on typical material composition, production volumes, and processing methods that are consistent across the full product range covered by the standard.

As such, it provides a reliable and technically appropriate basis for reporting the average environmental impacts of the product group.

The data presented in this EPD is based on production inputs recorded over a 12-month reference period.

Further information can be found at:

www.plascorp.com.au

The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

TRANSPORT AND INSTALLATION (A4-A5)

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

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.

Module A5 Installation is included in the scope of the study only as it relates to the treatment of packaging at the construction site. It is assumed that 100% of EoL waste is transported for recycling. The transport distance in estimated at 50 km by 16-32 metric ton truck.

Module A4 (Distribution) and Module A5 (Installation) except as detailed in previous paragraph are not included in the scope of this study, therefore is not part of the system boundary and is not included in the model.

PRODUCT USE AND MAINTENANCE (B1-B7)

Modules B1-B7 (Use) is not included in the scope of this study, therefore is not part of the system boundary and is not included in the model.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

PVC pressure pipes are generally installed underground and are assumed to remain underground at end of life. PVC pipes are inert and there is no incentive to dig them up to send for waste treatment.

MANUFACTURING PROCESS

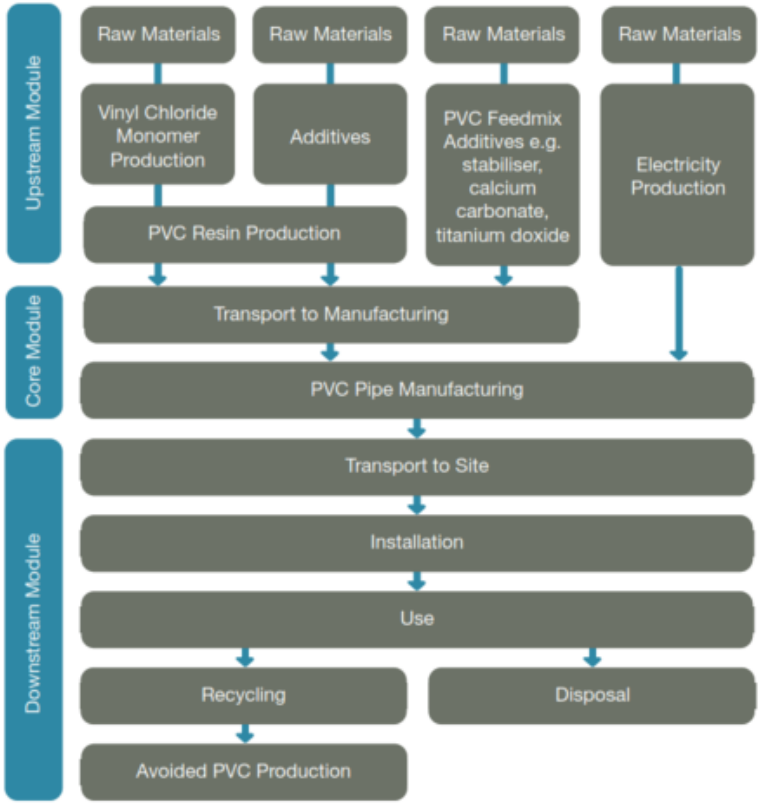


Figure 1 - Life cycle diagram of PVC pipe production

LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

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

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

Cradle to gate study of A1-A3 all process inputs have been included, although there has been some grouping where it is less than 1% ie; Oils, which have been grouped with mineral oil. For C1-C4 100% of PVC Pressure Pipe is left in situ at the end of product life, as per industry current practice. Buildings and infrastructure have an assumed life of no less than 60 years. Left in place/situ is consistent with local competitors verified EPD's.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

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

Data type	Allocation
Raw materials	Allocated by mass or volume
Packaging material	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on average results of product group - by total mass
Variation in GWP-fossil for A1-A3, %	0

The product range of PVC Pipes are all manufactured from PVC resin and additive constituents in various diameters, wall thicknesses and lengths. A per Kg unit was used as the basis for the GWP Calculation.

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 v3.10.1 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1 environmental data sources follow the methodology ‘allocation, Cut-off, EN 15804+A2‘.

ENVIRONMENTAL IMPACT DATA

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

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	3,31E+00	1,13E-01	-4,47E-03	3,42E+00	MND	8,87E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,72E-01	2,13E-02
GWP – fossil	kg CO_2e	3,30E+00	1,13E-01	1,99E-01	3,61E+00	MND	1,57E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,84E-02	2,13E-02
GWP – biogenic	kg CO_2e	9,90E-03	1,78E-05	-2,04E-01	-1,94E-01	MND	8,71E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,04E-01	-1,33E-05
GWP – LULUC	kg CO_2e	3,35E-03	6,04E-05	1,09E-04	3,52E-03	MND	8,72E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	7,26E-06	3,11E-06
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	8,17E-07	1,62E-09	2,44E-09	8,21E-07	MND	2,94E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,93E-10	1,83E-10
Acidification potential	mol H^+e	1,53E-02	3,16E-03	9,31E-04	1,94E-02	MND	8,25E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	8,26E-05	2,59E-05
EP-freshwater[2)]	kg Pe	9,89E-04	3,82E-06	2,81E-04	1,27E-03	MND	6,35E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,20E-06	5,35E-07
EP-marine	kg Ne	2,89E-03	7,87E-04	2,33E-04	3,91E-03	MND	2,36E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,90E-04	1,83E-05
EP-terrestrial	mol Ne	3,03E-02	8,74E-03	1,81E-03	4,09E-02	MND	3,09E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,33E-04	8,64E-05
POCP ("smog")[3)]	kg NMVOCe	1,29E-02	2,38E-03	5,10E-04	1,58E-02	MND	1,23E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,28E-04	4,37E-05
ADP-minerals & metals[4)]	kg Sbe	3,86E-05	1,21E-07	6,17E-07	3,94E-05	MND	8,58E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,69E-08	1,77E-08
ADP-fossil resources	MJ	6,19E+01	1,39E+00	2,18E+00	6,55E+01	MND	2,71E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,52E-01	5,31E-02
Water use[5)]	m^3e depr.	1,12E+00	4,06E-03	2,11E-02	1,14E+00	MND	1,36E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,29E-03	1,39E-02

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

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

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	1,48E-07	3,73E-09	3,15E-09	1,55E-07	MND	1,77E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,82E-09	1,84E-08
Ionizing radiation[6]	kBq U235e	2,12E-01	6,62E-04	1,86E-03	2,15E-01	MND	2,71E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,46E-04	1,21E-04
Ecotoxicity (freshwater)	CTUe	2,27E+01	1,09E-01	4,20E+00	2,70E+01	MND	9,69E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	8,74E+01	7,17E-01
Human toxicity, cancer	CTUh	4,08E-09	2,36E-11	5,18E-11	4,15E-09	MND	3,96E-13	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,77E-12	5,89E-09
Human tox. non-cancer	CTUh	3,34E-08	3,74E-10	1,81E-09	3,56E-08	MND	2,66E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,30E-10	4,21E-10
SQP[7]	-	1,07E+01	1,82E-01	2,45E-01	1,11E+01	MND	4,30E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	5,80E-01	3,68E-02

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	3,17E+00	1,12E-02	6,04E-01	3,79E+00	MND	-1,04E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,91E-03	3,43E-03
Renew. PER as material	MJ	0,00E+00	0,00E+00	1,88E+00	1,88E+00	MND	-1,88E+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	3,17E+00	1,12E-02	2,48E+00	5,66E+00	MND	-2,92E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,91E-03	3,43E-03
Non-re. PER as energy	MJ	4,13E+01	1,39E+00	1,28E+00	4,39E+01	MND	2,71E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-2,13E+01	-8,03E-01
Non-re. PER as material	MJ	2,07E+01	0,00E+00	-8,17E-01	1,98E+01	MND	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-1,98E+01	8,61E-01
Total use of non-re. PER	MJ	6,19E+01	1,39E+00	4,65E-01	6,38E+01	MND	2,71E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-4,11E+01	5,80E-02
Secondary materials	kg	1,52E-02	6,60E-04	1,71E-03	1,75E-02	MND	1,12E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	9,07E-05	2,85E-03
Renew. secondary fuels	MJ	1,64E-04	1,82E-06	4,88E-06	1,71E-04	MND	2,07E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,70E-06	1,48E-06
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	2,76E-02	1,01E-04	2,31E-04	2,79E-02	MND	-2,26E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-3,69E-03	3,27E-04

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	2,87E-01	1,88E-03	2,72E-02	3,16E-01	MND	5,22E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,44E-04	2,68E-03
Non-hazardous waste	kg	3,93E+01	2,61E-02	1,63E+00	4,10E+01	MND	3,06E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,98E+00	4,65E-02
Radioactive waste	kg	5,37E-05	1,61E-07	8,95E-07	5,48E-05	MND	6,64E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,01E-08	1,18E-07

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	MND	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	MND	2,79E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,00E-02
Materials for energy rec	kg	0,00E+00	0,00E+00	5,70E-05	5,70E-05	MND	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,03E-16
Exported energy	MJ	0,00E+00	0,00E+00	1,81E-01	1,81E-01	MND	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 – Electricity	MJ	0,00E+00	0,00E+00	1,81E-01	1,81E-01	MND	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 – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	3,28E+00	1,12E-01	1,99E-01	3,59E+00	MND	5,09E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,56E-02	2,11E-02
Ozone depletion Pot.	kg $CFC_{-11}e$	8,07E-07	1,29E-09	1,98E-09	8,10E-07	MND	2,35E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,35E-10	2,34E-10
Acidification	kg SO_2e	1,26E-02	2,52E-03	7,70E-04	1,59E-02	MND	6,23E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,12E-05	2,05E-05
Eutrophication	kg PO_4^3e	1,94E-02	2,79E-04	1,69E-04	1,98E-02	MND	3,38E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,38E-05	4,98E-06
POCP (“smog”)	kg C_2H_4e	1,05E-03	1,26E-04	4,08E-05	1,22E-03	MND	1,27E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,40E-05	1,13E-05
ADP-elements	kg Sbe	3,17E-05	1,20E-07	6,15E-07	3,25E-05	MND	8,45E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,62E-08	1,36E-08
ADP-fossil	MJ	5,85E+01	1,38E+00	2,16E+00	6,20E+01	MND	2,66E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,48E-01	5,21E-02

ENVIRONMENTAL IMPACTS – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	3,30E+00	1,13E-01	2,00E-01	3,61E+00	MND	1,57E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,84E-02	2,13E-02

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

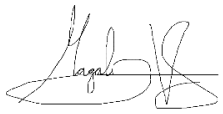
I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried 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
28.06.2025



VERIFIED ISO 14025