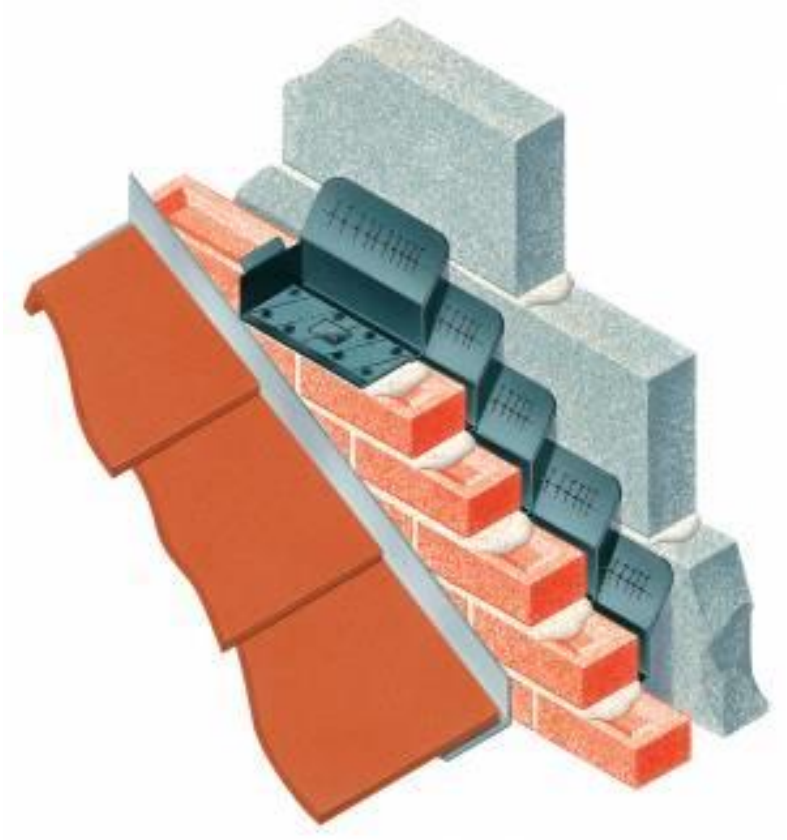
ENVIRONMENTAL PRODUCT DECLARATION

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

Injection Moulded Cavity Trays from 100% Recycled Polypropylene

Cavity Trays Ltd.



EPD HUB, HUB-0848

Publishing date 16 November 2023, last updated on 16 November 2023, valid until 16 November 2028.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Cavity Trays Ltd.
Address	Administration Centre, Yeovil, Somerset, BA22 8HU
Contact details	enquiries@cavitytrays.co.uk
Website	https://www.cavitytrays.com/

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 1.0, 1 Feb 2022
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	Sam McGarrick (Blue Marble Environmental Partnerships Ltd.)
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☐ 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	Recycled Polypropylene Injection Moulded Cavity Trays
Additional labels	Advantage Range Type E Cavitray Type G Cavitray (No Lead) Type M Type BWVC Weeps (Type W Caviweeps)
Product reference	-
Place of production	Somerset, UK
Period for data	May 2022 - May 2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	- %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1kg of Injection Moulded Cavity Trays
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	1.64E0
GWP-total, A1-A3 (kgCO2e)	1.3E0
Secondary material, inputs (%)	105.0
Secondary material, outputs (%)	50.0
Total energy use, A1-A3 (kWh)	7.67
Total water use, A1-A3 (m3e)	1.43E-2

PRODUCT AND MANUFACTURER

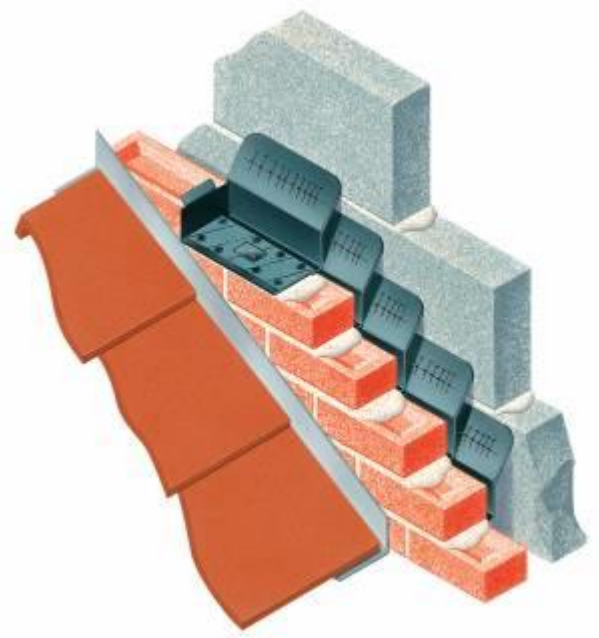
ABOUT THE MANUFACTURER

In the 1920s a West Country family of builders started fabricating dampcourses and other devices to allay the fears of the unpredictable and volatile English climate. Today the fourth generation of the same family continue the tradition. The Company is now called Cavity Trays Limited and can claim more experience, more case histories and more know-how than any other company in this specialised field. Cavity Trays Limited is the first and only tray manufacturer awarded European Technical Approval - there is no higher standard. Cavitrays with high performance categorisation are accompanied with product performance liability, for the benefit of Architect, Builder and Client.

PRODUCT DESCRIPTION

Advantage Range

Preformed cavitray without an integral lead flashing attached. May be used as an alternative method of creating the damp course element only, where a sloping roof abuts a cavity masonry wall. This product is named Advantage, as it offers benefits not available from any other unleaded cavity tray manufacturer. The Advantage unleaded gable abutment cavitray is intended for use by installers who wish to introduce their own flashing medium at a later date. Each unit is moulded in solid DPC and has a variable cavity upstand facility. When incorporated within the external skin, the mortar is raked out underneath the base of the tray whilst it is still green. At a later date lead or other suitable flashing is cut and introduced within the raked out joint. Optional rake-out polystyrene front strip available.



Type E Cavitray

The Type E is a preformed DPC cavitray which is inserted into an existing cavity wall. The Type E requires only one course of bricks to be disturbed, with just a few bricks removed at any time. The self-contained Type E cavitrays are the length of two bricks, and clip together, so long runs are easily and quickly created. Preformed angles cater for corners and piers. Each unit has stand-alone discharge via a weep. Suitable for all popular cavity widths because the cavity upstand of the Type E is hinged and adjusts to always suit the 'as-found' cavity width.

Type G Cavitray

The Type G is supplied in preformed lengths and preformed angles. Long runs can be rapidly laid with adjoining sections interlocking via integral stopends that coincide with masonry perp joints. All arrested water is discharged via caviweeps. The standard Type G profile suits cavity widths from 50mm up to 160mm and is available in lengths to suit masonry coursings. The Type G is usually supplied with a flashing already attached or with an external bed lip (see Type G - No flashing page). The Type G is suitable for traditional and timber frame construction and cannot deform or misplace like conventional roll dpc.

Type M Cavitray

The Type M cavitray provides horizontal protection against damp penetration where a cavity wall accommodates an electricity or gas meter consumer supply control unit (meter box). The standard length tray suits standard meter boxes and provides sufficient overhang to each side. Water discharge off the ends of the Type M is prevented by integral stop ends. The base of the Type M suits standard thickness exterior skins of brickwork, blockwork etc., whilst the cavity upstand of the Type M automatically adjusts to suit most cavity widths from 50mm up to 160mm.

Type BWVC

The Type BWVC is a preformed DPC cavitray that vertically connects two levels within the same masonry skin without adversely interrupting bonding or coursing. Its presence prevents horizontal damp transference. It is extensively used in bay window construction where the level of the roof intersection and that of the support lintel spannng the bay is not shared and seperating courses exist between them. Type BWVC units are handed and available to suit brickwork / block work coursings. Units are introduced at each end of the lintel and provide permanent DPC connection upwardly to the cavitray at roof intersection level.

Type W Caviweeps

DPCs, lintel and cavity tray installations require weeps to discharge collected water from the building fabric. Ventilating of wall cavities, and enveloped construction is also necessary to avoid interstitial condensation. Type W Caviweeps/Cavivents ensure water is removed from the building whilst also encouraging the wall to breathe. Being dual-functioned, the Type W takes advantage of the pressure differentials which exist in and out of the cavity. This aids evacuation of cavity humid air. The NHBC standards (4.4c.111) advise that the cavity below DPC level and at eaves and verge level should be ventilated. This requirement is fulfilled using Type W weepvents.

Further information can be found at https://www.cavitytrays.com/.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	-	
Minerals	-	
Fossil materials	100	UK
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	0.0784

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1kg of Injection Moulded Cavity Trays
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	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.

The product comprises 100% post-consumer recycled polypropylene from battery feedstock. The polypropylene from the battery cases is removed by a breaking process which separates the plastic from the lead. The lead is re-smelted back into lead ingots. The polypropylene is then washed prior to a further griding process before the material is pelletised and packaged. No other raw materials are used in the product. The product is formed off-site through an injection moulding process and transported to Cavity Trays for packing and onward distribution (A1). Energy consumption used in the injection moulding process is electricity drawn from the UK grid. Manufacturing losses of up to 5% have been accounted for, which are then re-introduced back into the injection moulding process (A3). Packaging includes cardboard boxes and wooden pallets (A3).

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.

A weighted average of transportation distances was calculated for the period May 2022 to May 2023 for transport to installation site (A4). No installation losses are anticipated. The product is introduced into the building as the outer skin is constructed. No specialist tools or energy consumption is necessary to build in the product (A5). Cardboard packaging waste is assumed to be recycled. Pallets reaching end of life are assumed to be incinerated with energy recovery (A5).

PRODUCT USE AND MAINTENANCE (B1-B7)

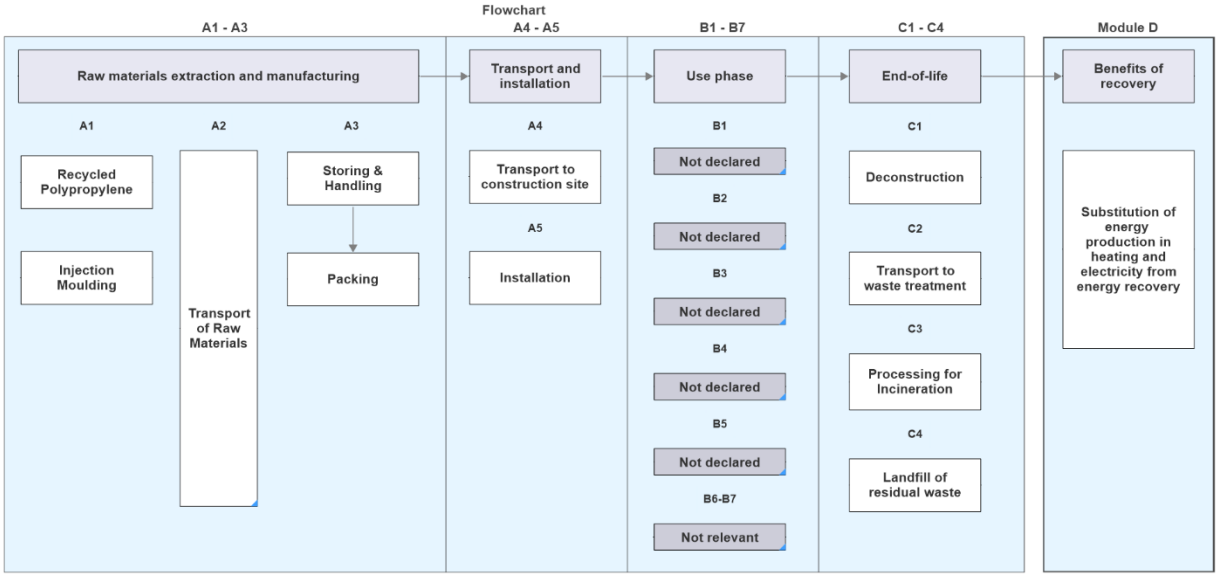
The product is designed to remain in-situ for the lifetime of the building and no maintenance, repair or replacement is anticipated.

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

PRODUCT END OF LIFE (C1-c4, D)

The product reaches the end of life stage at the point the building / outer skin of building is demolished. No specialist tools are necessary to remove the product. Transportation to waste treatment is conservatively assumed to be 100km. End of life waste treatment has been modelled on the basis of 50% going to landfill, 50% incinerated (C3,C4). Benefits and loads for the recycling of cardboard packaging, and energy recovery from incineration of the pallet and product have been accounted for (D).

MANUFACTURING PROCESS



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 materials	No allocation
Ancillary materials	No allocation
Manufacturing energy and waste	No allocation

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not 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. Ecoinvent v3.8 and One Click LCA databases were used as sources of environmental data.

Created with One Click LCA

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	1.47E0	4.8E-2	-2.15E-1	1.3E0	3.99E-2	2.93E-1	MND	MND	MND	MND	MND	MND	MND	0E0	9E-3	1.27E0	6.33E-2	-3.73E0
GWP – fossil	kg CO_2e	1.52E0	4.8E-2	7.35E-2	1.64E0	3.99E-2	4.55E-3	MND	MND	MND	MND	MND	MND	MND	0E0	8.99E-3	1.27E0	6.33E-2	-3.45E0
GWP – biogenic	kg CO_2e	-5.63E-2	8.75E-6	-2.86E-1	-3.42E-1	1.61E-5	2.89E-1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	2.68E-2	2.68E-2	-2.78E-1
GWP – LULUC	kg CO_2e	2.01E-3	2.27E-5	4.09E-4	2.44E-3	1.55E-5	5.02E-6	MND	MND	MND	MND	MND	MND	MND	0E0	3.49E-6	2.9E-6	5.56E-6	-1.16E-3
Ozone depletion pot.	kg $CFC_{-11}e$	1.08E-7	1.07E-8	9.29E-9	1.28E-7	9.37E-9	5.94E-10	MND	MND	MND	MND	MND	MND	MND	0E0	2.12E-9	9.74E-10	1.6E-9	-4.63E-7
Acidification potential	mol H^+e	7.22E-3	1.52E-4	3.91E-4	7.76E-3	1.3E-4	1.84E-5	MND	MND	MND	MND	MND	MND	MND	0E0	2.93E-5	1.63E-4	4.55E-5	-4.99E-3
EP-freshwater[2)]	kg Pe	6.08E-5	4.53E-7	4.78E-6	6.6E-5	3.38E-7	2.09E-7	MND	MND	MND	MND	MND	MND	MND	0E0	7.62E-8	1.22E-7	8.7E-8	-1.93E-5
EP-marine	kg Ne	1.27E-3	3.14E-5	1.51E-4	1.46E-3	2.85E-5	3.51E-6	MND	MND	MND	MND	MND	MND	MND	0E0	6.44E-6	7.47E-5	2.61E-5	-1.26E-3
EP-terrestrial	mol Ne	1.42E-2	3.5E-4	1.22E-3	1.58E-2	3.17E-4	3.72E-5	MND	MND	MND	MND	MND	MND	MND	0E0	7.15E-5	8.54E-4	1.69E-4	-1.43E-2
POCP ("smog")[3)]	kg NMVOCe	4.22E-3	1.34E-4	3.83E-4	4.73E-3	1.23E-4	1.23E-5	MND	MND	MND	MND	MND	MND	MND	0E0	2.77E-5	2.28E-4	6.22E-5	-4.24E-3
ADP-minerals & metals[4)]	kg Sbe	3.24E-6	1.79E-7	5.66E-7	3.99E-6	9.71E-8	2.13E-8	MND	MND	MND	MND	MND	MND	MND	0E0	2.19E-8	3.94E-8	1.82E-8	-3.18E-6
ADP-fossil resources	MJ	2.15E1	7.23E-1	1.11E0	2.34E1	6.24E-1	7.18E-2	MND	MND	MND	MND	MND	MND	MND	0E0	1.41E-1	6.2E-2	1.23E-1	-6.57E1
Water use[5)]	m^3e depr.	5.27E-1	3.51E-3	5.23E-2	5.83E-1	2.79E-3	1.23E-3	MND	MND	MND	MND	MND	MND	MND	0E0	6.29E-4	1.1E-2	7.35E-4	-2.25E-1

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	6.33E-8	4.5E-9	6.33E-9	7.42E-8	4.53E-9	3.1E-10	MND	MND	MND	MND	MND	MND	MND	0E0	1.02E-9	1.31E-9	9.09E-10	-2.1E-8
Ionizing radiation[6)]	kBq U235e	1.35E-1	3.43E-3	8.49E-3	1.47E-1	2.99E-3	1.13E-3	MND	MND	MND	MND	MND	MND	MND	0E0	6.75E-4	3.01E-4	5.92E-4	-7.62E-1
Ecotoxicity (freshwater)	CTUe	2.97E1	6.84E-1	1.57E0	3.19E1	5.55E-1	7.89E-2	MND	MND	MND	MND	MND	MND	MND	0E0	1.25E-1	3.08E-1	1.27E-1	-1.31E1
Human toxicity, cancer	CTUh	5.69E-10	1.95E-11	3.11E-10	9E-10	1.36E-11	3.44E-12	MND	MND	MND	MND	MND	MND	MND	0E0	3.07E-12	1.74E-10	4.02E-12	-4.17E-10
Human tox. non-cancer	CTUh	1.41E-8	6.25E-10	1.38E-9	1.61E-8	5.34E-10	6.67E-11	MND	MND	MND	MND	MND	MND	MND	0E0	1.21E-10	1.19E-9	7.53E-11	-8.54E-9
SQP[7)]	-	1.05E1	6.71E-1	2.06E1	3.18E1	7.18E-1	4.64E-2	MND	MND	MND	MND	MND	MND	MND	0E0	1.62E-1	2.24E-2	2.97E-1	-9.78E0

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	2.56E0	9.45E-3	1.72E0	4.29E0	7.03E-3	6.93E-3	MND	MND	MND	MND	MND	MND	MND	0E0	1.59E-3	3.45E-3	2.27E-3	-4.17E0
Renew. PER as material	MJ	0E0	0E0	2.52E0	2.52E0	0E0	-2.52E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	5.28E-2
Total use of renew. PER	MJ	2.56E0	9.45E-3	4.25E0	6.82E0	7.03E-3	-2.51E0	MND	MND	MND	MND	MND	MND	MND	0E0	1.59E-3	3.45E-3	2.27E-3	-4.12E0
Non-re. PER as energy	MJ	2.15E1	7.23E-1	9.71E-1	2.32E1	6.24E-1	7.17E-2	MND	MND	MND	MND	MND	MND	MND	0E0	1.41E-1	6.2E-2	1.23E-1	-6.57E1
Non-re. PER as material	MJ	0E0	0E0	1.42E-1	1.42E-1	0E0	-1.42E-1	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	-3.45E-3
Total use of non-re. PER	MJ	2.15E1	7.23E-1	1.11E0	2.34E1	6.24E-1	-7.02E-2	MND	MND	MND	MND	MND	MND	MND	0E0	1.41E-1	6.2E-2	1.23E-1	-6.57E1
Secondary materials	kg	1.05E0	2.58E-4	4.07E-2	1.09E0	1.73E-4	3.91E-5	MND	MND	MND	MND	MND	MND	MND	0E0	3.91E-5	1.67E-4	4.39E-5	-3.5E-3
Renew. secondary fuels	MJ	1.28E-2	3.14E-6	7.31E-2	8.58E-2	1.75E-6	1.86E-7	MND	MND	MND	MND	MND	MND	MND	0E0	3.94E-7	4.15E-7	1.69E-6	2.79E-4
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m^3	1.3E-2	9.7E-5	1.23E-3	1.43E-2	8.06E-5	3.73E-5	MND	MND	MND	MND	MND	MND	MND	0E0	1.82E-5	2.66E-4	1.32E-4	-5.74E-3

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	1.19E-1	1.12E-3	4.84E-3	1.25E-1	8.22E-4	2.65E-4	MND	MND	MND	MND	MND	MND	MND	0E0	1.86E-4	0E0	0E0	-5.32E-2
Non-hazardous waste	kg	2.63E0	1.8E-2	1.08E-1	2.75E0	1.35E-2	1E-2	MND	MND	MND	MND	MND	MND	MND	0E0	3.05E-3	5E-1	5E-1	-5.57E-1
Radioactive waste	kg	5.37E-5	4.78E-6	3.92E-6	6.24E-5	4.21E-6	4.88E-7	MND	MND	MND	MND	MND	MND	MND	0E0	9.49E-7	0E0	0E0	-2.11E-4

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	0E0	0E0	5E-2	5E-2	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for recycling	kg	0E0	0E0	0E0	0E0	0E0	3.33E-2	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	MND	MND	MND	MND	MND	MND	0E0	0E0	0E0	0E0	0E0

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	1.48E0	4.75E-2	7.41E-2	1.6E0	3.95E-2	4.78E-3	MND	MND	MND	MND	MND	MND	MND	0E0	8.91E-3	1.27E0	5.15E-2	-3.39E0
Ozone depletion Pot.	kg $CFC_{-11}e$	9.32E-8	8.45E-9	7.84E-9	1.09E-7	7.43E-9	4.79E-10	MND	MND	MND	MND	MND	MND	MND	0E0	1.68E-9	9.13E-10	1.27E-9	-4.07E-7
Acidification	kg SO_2e	5.99E-3	1.24E-4	2.89E-4	6.41E-3	1.05E-4	1.52E-5	MND	MND	MND	MND	MND	MND	MND	0E0	2.38E-5	1.11E-4	3.45E-5	-3.93E-3
Eutrophication	kg PO_4^3e	2.35E-3	2.81E-5	2.17E-4	2.59E-3	2.3E-5	1.06E-5	MND	MND	MND	MND	MND	MND	MND	0E0	5.2E-6	2.23E-4	2.36E-3	-1.01E-3
POCP (“smog”)	kg C_2H_4e	3.53E-4	5.97E-6	3.13E-5	3.9E-4	4.85E-6	8.87E-7	MND	MND	MND	MND	MND	MND	MND	0E0	1.09E-6	4.49E-6	9.41E-6	-2.66E-4
ADP-elements	kg Sbe	3.21E-6	1.75E-7	5.27E-7	3.92E-6	9.43E-8	2.1E-8	MND	MND	MND	MND	MND	MND	MND	0E0	2.13E-8	2.76E-8	1.75E-8	-3.16E-6
ADP-fossil	MJ	2.15E1	7.23E-1	1.11E0	2.34E1	6.24E-1	7.17E-2	MND	MND	MND	MND	MND	MND	MND	0E0	1.41E-1	6.2E-2	1.23E-1	-6.57E1

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

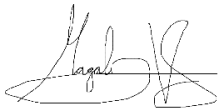
I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried 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
16.11.2023



VERIFIED ISO 14025