ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Extruded Aluminium Profile
Dura Composites Limited

EPD HUB, HUB-3594
Published on 03.07.2025, last updated on 15.07.2025, valid until 02.01.2027

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	Dura Composites Limited
Address	Dura House, Telford Road, Clacton on Sea, Essex, CO15 4LP, UK
Contact details	enquiries@duracomposites.com
Website	www.duracomposites.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 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Design phase EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with options, A4, and modules C1-C4, D
EPD author	Camilla Weiss
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Haiha Nguyen, as an authorized verifier acting for EPD Hub Limited

This EPD is intended for business-to-business and/or business-to-consumer communication. 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	Extruded Aluminium Profile
Place of production	England, UK
Period for data	Q4 2024
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	-
A1-A3 Specific data (%)	98.1

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	6.55E+00
GWP-total, A1-A3 ($kgCO_2e$)	6.63E+00
Secondary material, inputs (%)	42.9
Secondary material, outputs (%)	92.8
Total energy use, A1-A3 (kWh)	37.5
Net freshwater use, A1-A3 (m^3)	0.31

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Dura Composites is a leading global supplier of composite products for flooring, structures and façades, which are ideal for the industrial, construction, rail, marine, landscaping & architectural sectors as a long-lasting and cost-effective replacement for wood, steel and concrete. Our experienced team has extensive knowledge and practical experience of fibreglass reinforced plastic, composite timber and other related emerging materials. The range of products on offer from Dura Composites is vast, from floor walkway grating, garden decking, building cladding and industrial handrailing to service risers and trench covers. All products offer customers a low life cycle cost thanks to their long life expectancy and low maintenance requirements. In 2017 and in 2020, Dura Composites was awarded the Queen's Award for Enterprise in recognition of our achievements at the forefront of composite material technology. Dura Composites' products are also available through a well-established global distribution network

PRODUCT DESCRIPTION

Dura aluminium extruded profiles are high-performance, non-combustible products used in a range of applications, including decking, cladding, access structures, and substrate systems. Made from 100% recyclable aluminium, they offer exceptional strength and durability and are fully compliant with fire safety regulations thanks to their A2-s1 d0 and A2fl-s1 fire ratings. Our profiles are all made in the UK, from UK manufactured aluminium ingots which contain 69% recycled content. All our profiles are manufactured using the same extrusion process with differing dies. This EPD covers a 1kg extruded profile with a length of 1.2m and a surface area of 0.471m2.

Further information can be found at:
www.duracomposites.com

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	92	UK
Minerals	-	-
Fossil materials	8	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	0.041

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 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		
x	x	x	x	MND	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.

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

Dura aluminium profiles are manufactured using an extrusion process. The raw aluminium ingots are heated and piston-pressed through a steel die of the desired profile shape. Once shaped, the product is then stretched, cut, and cooled before a protective powder varnish coat is applied - 1kg of powder is used per 6m2 of surface area. The powder application process involves first cleaning the profile and applying a conversion layer to ensure paint adhesion before drying in a furnace and coating with the polyester resin powder. They are then placed in a polymerization furnace, where the powder resin is hardened at 200 ºC. Aluminium waste from the production process is sent back to the original plant to be 100% recycled into new ingots, and the waste from the powder coating is sent to landfill, where a distance of 100km has been assumed. For the extrusion process, a reference value for European aluminium extrusion has been used to calculate the energy usage - as this is a design EPD, these figures will be replaced with factory level data in one year's time. The final products are packaged in cardboard and PE wrap and stacked on timber bearers or pallets, ready for shipment to Dura HQ. The cardboard and PE packaging is removed after shipping, in order to allow shipments to be split up for different customers, and disposed of using an average EU scenario which consists of a mix of recycling, incineration, and landfill. New packaging is added for customer delivery, including further PE wrap and PET banding. The timber bearers or pallets are reused for delivery to the customer.

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.

Transport to the customer is included and is based on average customer distance for the product. Installation has not been included as this is carried out by the customer, and as the customer is also usually responsible for

supplying their own fixings suitable for their construction environment, fixings have not been included here. The packaging used to transport the products is removed on delivery and average EU scenarios have been used for the wood and plastic packaging waste consisting recycling, incineration, and landfill options. As module A5 is not declared in this EPD, packaging waste scenarios are considered in sections C3 and C4.

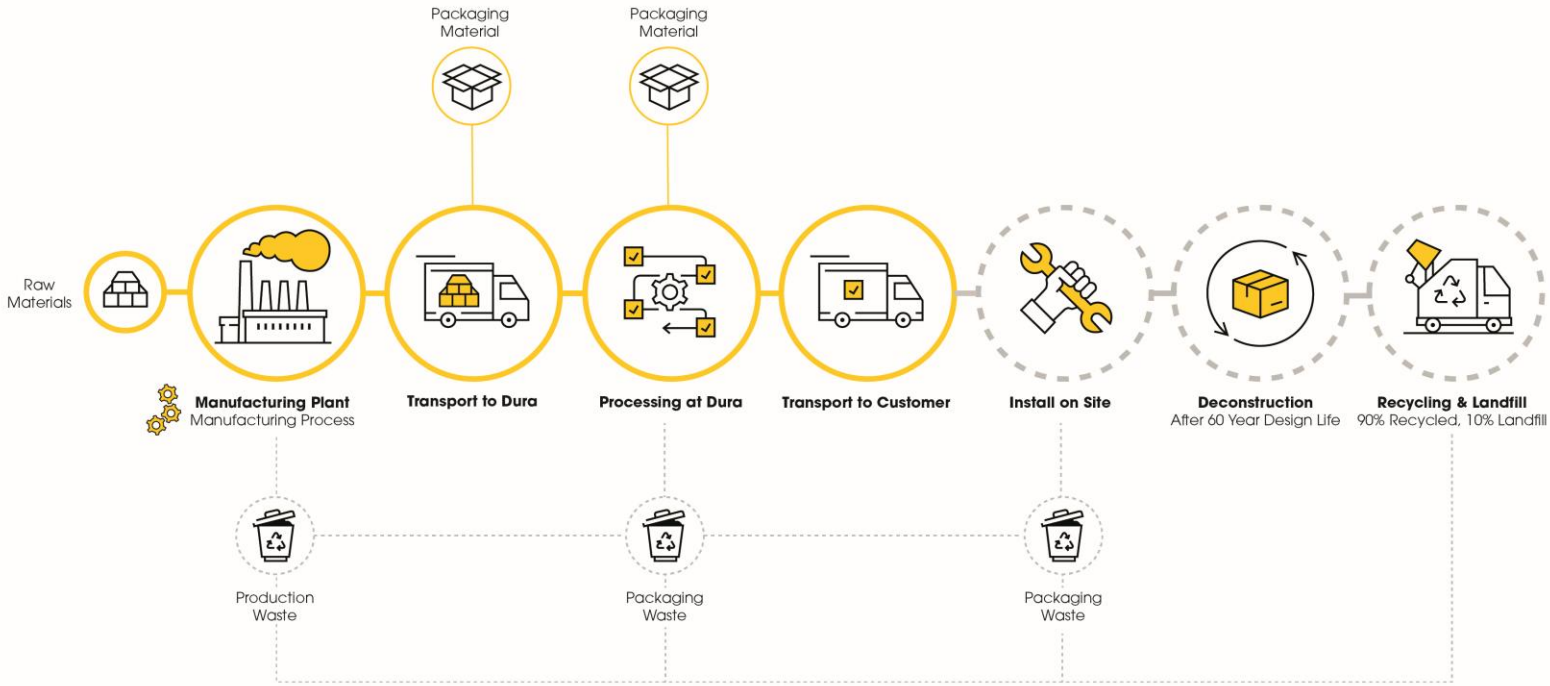
PRODUCT USE AND MAINTENANCE (B1-B7)

No product use or maintenance is calculated in this EPD.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy in the de-construction process is considered - typically Dura aluminium products may be dismantled without the use of heavy machinery, or even electric tools, but some energy has been assumed for the used of an electric drill used to remove 4 screws on a 1kg section of aluminium profile. For the aluminium product disposal at end of life, an average scenario from Eurostat and the World Steel Association has been used which assumes 90% of aluminium is recycled and 10% sent to landfill; this scenario assumes transport to the recycling facility of 250km, and transport to landfill of 50km. Benefits and loads beyond the system boundary have been considered and include the benefits of recycling and avoiding virgin production of the wood and plastic packaging, and the aluminium product (the recycled content of the raw material inputs has been taken into account and is not modelled as a benefit), and the benefits of exported energy from the incineration of the plastic and wood packaging, as well as the transfer of biogenic carbon from the disposal of the wood packaging.

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.

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.

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	No allocation
Packaging material	Allocated by mass or volume
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	-

This EPD is product and factory specific.

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, EF 3.1

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	5.75E+00	1.33E-01	7.48E-01	6.63E+00	8.19E-03	2.59E-02	MND	MND	MND	MND	MND	MND	MND	9.50E-03	2.56E-02	9.89E-02	9.36E-02	-2.45E+00
GWP – fossil	kg CO_2e	5.54E+00	1.33E-01	8.70E-01	6.55E+00	8.18E-03	0.00E+00	MND	MND	MND	MND	MND	MND	MND	9.49E-03	2.56E-02	3.23E-02	3.02E-03	-2.40E+00
GWP – biogenic	kg CO_2e	4.58E-02	2.48E-05	-1.24E-01	-7.85E-02	1.62E-06	2.59E-02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.77E-06	6.65E-02	9.05E-02	1.95E-03
GWP – LULUC	kg CO_2e	1.59E-01	4.74E-05	2.01E-03	1.61E-01	2.89E-06	0.00E+00	MND	MND	MND	MND	MND	MND	MND	6.27E-07	1.14E-05	3.27E-05	3.77E-06	-5.18E-02
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	5.70E-07	2.61E-09	4.66E-08	6.19E-07	1.63E-10	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.47E-10	3.82E-10	2.86E-10	5.54E-11	-1.92E-08
Acidification potential	mol H^+e	3.69E-02	4.16E-04	5.06E-03	4.24E-02	2.56E-05	0.00E+00	MND	MND	MND	MND	MND	MND	MND	9.15E-06	8.70E-05	2.73E-04	1.72E-05	-1.94E-02
EP-freshwater[2)]	kg Pe	2.59E-04	8.86E-06	5.23E-04	7.90E-04	5.43E-07	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.31E-07	1.98E-06	1.37E-05	6.58E-07	-7.37E-04
EP-marine	kg Ne	4.26E-03	1.40E-04	7.91E-04	5.19E-03	8.63E-06	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.44E-06	2.86E-05	6.31E-05	1.76E-05	-2.48E-03
EP-terrestrial	mol Ne	2.03E-03	1.52E-03	7.92E-03	1.15E-02	9.38E-05	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.53E-05	3.11E-04	7.04E-04	6.56E-05	-2.54E-02
POCP ("smog")[3)]	kg NMVOCe	1.75E-02	6.50E-04	2.67E-03	2.08E-02	4.01E-05	0.00E+00	MND	MND	MND	MND	MND	MND	MND	3.00E-05	1.28E-04	2.07E-04	2.16E-05	-9.33E-03
ADP-minerals & metals[4)]	kg Sbe	1.35E-05	4.32E-07	1.81E-05	3.21E-05	2.68E-08	0.00E+00	MND	MND	MND	MND	MND	MND	MND	4.13E-09	7.17E-08	1.45E-06	7.57E-09	-3.91E-06
ADP-fossil resources	MJ	7.61E+01	1.86E+00	1.54E+01	9.33E+01	1.15E-01	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.23E-01	3.71E-01	3.11E-01	5.07E-02	-2.30E+01
Water use[5)]	m^3e depr.	5.62E-01	9.17E-03	6.83E-01	1.25E+00	5.65E-04	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.62E-04	1.83E-03	5.71E-03	1.08E-03	-1.96E+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, EF 3.1

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	4.33E-07	1.05E-08	3.27E-08	4.76E-07	6.43E-10	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.30E-10	2.54E-09	3.82E-09	3.26E-10	-2.63E-07
Ionizing radiation[6)]	kBq U235e	1.99E-02	2.35E-03	2.62E-01	2.84E-01	1.47E-04	0.00E+00	MND	MND	MND	MND	MND	MND	MND	3.06E-05	3.28E-04	1.13E-03	1.01E-04	-2.09E-01
Ecotoxicity (freshwater)	CTUe	6.65E+00	2.46E-01	4.19E+00	1.11E+01	1.51E-02	0.00E+00	MND	MND	MND	MND	MND	MND	MND	5.78E-03	5.23E-02	1.78E-01	1.76E+01	-5.77E+00
Human toxicity, cancer	CTUh	4.21E-10	2.26E-11	3.83E-10	8.27E-10	1.39E-12	0.00E+00	MND	MND	MND	MND	MND	MND	MND	4.43E-13	4.23E-12	2.10E-11	2.00E-12	-2.94E-09
Human tox. non-cancer	CTUh	9.88E-09	1.17E-09	1.87E-08	2.97E-08	7.22E-11	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.87E-11	2.40E-10	1.32E-09	4.13E-10	-2.05E-08
SQP[7)]	-	1.03E+01	1.14E+00	1.79E+01	2.93E+01	6.84E-02	0.00E+00	MND	MND	MND	MND	MND	MND	MND	7.88E-03	3.69E-01	5.61E-01	8.42E-02	-3.10E+00

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	3.88E+01	3.20E-02	3.29E+00	4.21E+01	1.99E-03	0.00E+00	MND	MND	MND	MND	MND	MND	MND	4.02E-04	5.12E-03	-6.20E-01	-5.07E-01	-1.77E+01
Renew. PER as material	MJ	4.44E-02	0.00E+00	1.55E+00	1.60E+00	0.00E+00	-2.37E-01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-8.21E-01	-5.41E-01	6.03E-02
Total use of renew. PER	MJ	3.88E+01	3.20E-02	4.85E+00	4.37E+01	1.99E-03	-2.37E-01	MND	MND	MND	MND	MND	MND	MND	4.02E-04	5.12E-03	-1.44E+00	-1.05E+00	-1.77E+01
Non-re. PER as energy	MJ	7.61E+01	1.87E+00	1.49E+01	9.29E+01	1.15E-01	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.23E-01	3.71E-01	1.52E-01	3.71E-03	-2.30E+01
Non-re. PER as material	MJ	2.03E+00	0.00E+00	-1.79E-01	1.85E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-1.01E-01	-1.75E+00	1.07E-01
Total use of non-re. PER	MJ	7.81E+01	1.87E+00	1.48E+01	9.47E+01	1.15E-01	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.23E-01	3.71E-01	5.09E-02	-1.75E+00	-2.29E+01
Secondary materials	kg	4.29E-01	8.52E-04	1.75E-01	6.05E-01	5.26E-05	0.00E+00	MND	MND	MND	MND	MND	MND	MND	1.24E-05	1.58E-04	3.60E-04	1.99E-05	3.14E-01
Renew. secondary fuels	MJ	0.00E+00	1.08E-05	5.34E-04	5.45E-04	6.65E-07	0.00E+00	MND	MND	MND	MND	MND	MND	MND	8.24E-08	2.01E-06	1.54E-05	2.90E-07	-7.86E-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	2.88E-01	2.52E-04	1.96E-02	3.08E-01	1.55E-05	0.00E+00	MND	MND	MND	MND	MND	MND	MND	5.36E-06	5.47E-05	1.38E-04	-4.97E-04	-4.23E-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	3.89E-03	2.70E-03	1.15E-01	1.21E-01	1.65E-04	0.00E+00	MND	MND	MND	MND	MND	MND	MND	4.98E-05	6.25E-04	2.54E-03	3.38E-04	-7.74E-01
Non-hazardous waste	kg	2.69E+00	5.66E-02	2.68E+00	5.43E+00	3.48E-03	0.00E+00	MND	MND	MND	MND	MND	MND	MND	8.18E-04	1.16E-02	9.25E-02	7.02E-01	-3.14E+00
Radioactive waste	kg	3.98E-04	5.84E-07	8.22E-05	4.81E-04	3.64E-08	0.00E+00	MND	MND	MND	MND	MND	MND	MND	7.39E-09	8.03E-08	2.78E-07	2.46E-08	-4.55E-05

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	7.69E-02	0.00E+00	1.30E-02	8.98E-02	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	9.28E-01	0.00E+00	0.00E+00
Materials for energy rec	kg	0.00E+00	0.00E+00	1.58E-05	1.58E-05	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	1.73E-02	1.73E-02	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 – Electricity	MJ	0.00E+00	0.00E+00	7.20E-03	7.20E-03	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	6.70E-02	0.00E+00	0.00E+00
Exported energy – Heat	MJ	0.00E+00	0.00E+00	1.01E-02	1.01E-02	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	7.40E-02	1.70E-02	0.00E+00

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	5.70E+00	1.33E-01	8.72E-01	6.71E+00	8.19E-03	0.00E+00	MND	MND	MND	MND	MND	MND	MND	9.50E-03	2.56E-02	3.23E-02	3.03E-03	-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.

THIRD-PARTY 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.

HaiHa Nguyen, as an authorized verifier acting for EPD Hub Limited
03.07.2025