ENVIRONMENTAL PRODUCT DECLARATION

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

Dura Deck Inspire Porcelain Decking
Dura Composites Limited

EPD HUB, HUB-3798
Published on 12.08.2025, last updated on 13.08.2025, valid until 11.08.2030

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	Dura Composites Limited
Address	Dura House, Telford Road, Clacton on Sea, CO15 4LP, Essex, UK
Contact details	info@duracomposites.com
Website	www.duracomposites.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
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	Dura Deck Inspire Porcelain Decking
Place of production	Fiorano Modenese, Italy
Period for data	2023
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	<10
A1-A3 Specific data (%)	99.4

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m2
Declared unit mass	39 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2.88E+01
GWP-total, A1-A3 ($kgCO_2e$)	2.89E+01
Secondary material, inputs (%)	1.25
Secondary material, outputs (%)	70.1
Total energy use, A1-A3 (kWh)	120
Net freshwater use, A1-A3 (m^3)	6.58

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 Deck® Inspire is a porcelain decking solution designed for high-rise balconies, terraces and commercial or leisure spaces. The planks have an A1 fire rating and are highly resistant to frost, temperature fluctuations and wear and tear. Dura Deck Inspire is manufactured in Europe using 61% pre-consumer recycled materials, with raw materials sourced within a 500-mile radius to reduce environmental impact. The wood grain surface finish features anti-slip properties, making it suitable for high-traffic areas. With a long lifespan, it provides a durable, low-maintenance alternative to timber decking. This EPD is for a 1m2 tile with a thickness of 20mm and a mass of 39kg.

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

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	-	-
Minerals	100	Italy
Fossil materials	-	-
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	0.110

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m2
Mass per declared unit	39 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.

The tiles are manufactured in Italy using as process which consists of mixing raw materials, a combination of clays, kaolins, sands, feldspars, and pigments, together, drying them in warm air, pressing them into their final form, and finally firing them at a very high temperature. The product is finished using different brushes for different surface effects and then cut to their final dimensions. The tiles are quality checked by an automatic checking machine, with a final human check for aesthetic standards. The tiles are packaged in 100% recycled paper, and are then covered in a plastic hood and transported to Dura in the UK. If the shipped consignment needs to be split up for customer delivery, additional plastic wrap and PET banding is used to secure the product - this scenario has been modelled. Timber bearers are used for transport to the construction site. The wood and plastic packaging is removed after shipping and disposed of using an average EU scenario which consists of a mix of recycling, incineration, and landfill.

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.

Installation has not been included as this is carried out by the customer, and since customer is also usually responsible for supplying their own fixings suitable for their construction environment, which can vary considerably in type and material, 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 EOL stage.

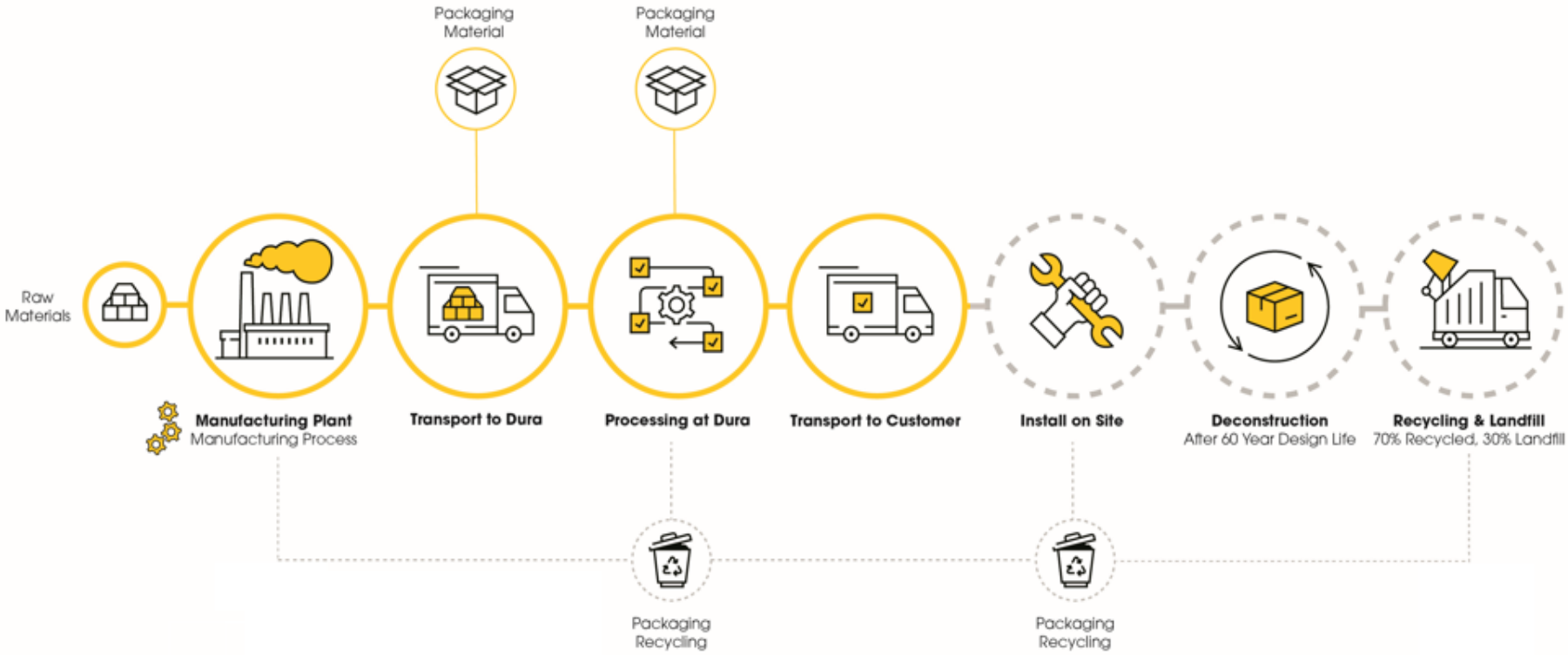
PRODUCT USE AND MAINTENANCE (B1-B7)

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. It is assumed that the waste is collected separately and transported to the waste treatment center. After demolition, ceramic tiles can be crushed and reused. It is assumed that 70% of product is recycled, and 30% goes to landfill. Transportation distance to treatment is assumed as 100 km and the transportation method is assumed to be lorry.

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	Allocated by mass or volume
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	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	<10

In this EPD porcelain stoneware tiles with thickness 20 mm are studied and 28 collections are included. The EPD covers multiple products based on the average results of the product group. In A3 module the energy consumptions are allocated for the whole production and reported to the weight of slab under study. The composition of all products included in the EPDs is almost the same. The variability of the products is determined by the different

colours. In the study, the use of different oxides coloured was analysed and the variability of results between the worst scenario and the average scenario is compared. The variability of results in terms of GWP-fossil for A1-A3 is <10%.

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	2.21E+01	6.35E+00	3.80E-01	2.89E+01	1.65E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.78E-01	2.17E-01	2.38E-01	-2.78E-01
GWP – fossil	kg CO_2e	2.21E+01	6.35E+00	3.39E-01	2.88E+01	1.65E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.78E-01	1.21E-01	1.18E-01	-2.89E-01
GWP – biogenic	kg CO_2e	0.00E+00	1.39E-06	4.00E-02	4.00E-02	3.70E-04	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.50E-05	9.53E-02	1.20E-01	1.17E-02
GWP – LULUC	kg CO_2e	8.60E-03	2.42E-03	9.17E-04	1.19E-02	6.65E-04	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.34E-04	1.68E-05	3.25E-05	-2.69E-04
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	9.01E-07	1.26E-07	5.08E-08	1.08E-06	3.25E-08	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.52E-09	1.86E-09	3.68E-09	-2.57E-09
Acidification potential	mol H^+e	6.78E-02	2.79E-02	1.52E-03	9.73E-02	4.83E-03	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.18E-03	1.09E-03	1.29E-03	-1.75E-03
EP-freshwater[2)]	kg Pe	1.53E-04	4.17E-04	2.44E-04	8.14E-04	1.31E-04	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	2.51E-05	3.96E-06	1.97E-04	-9.24E-05
EP-marine	kg Ne	2.42E-02	8.75E-03	4.68E-04	3.34E-02	1.52E-03	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.99E-04	5.05E-04	3.36E-04	-4.05E-04
EP-terrestrial	mol Ne	2.38E-01	9.57E-02	4.19E-03	3.38E-01	1.65E-02	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	4.34E-03	5.53E-03	3.47E-03	-4.86E-03
POCP ("smog")[3)]	kg NMVOCe	8.95E-02	3.82E-02	1.71E-03	1.29E-01	7.35E-03	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.85E-03	1.65E-03	1.27E-03	-1.38E-03
ADP-minerals & metals[4)]	kg Sbe	4.57E-05	1.70E-05	2.60E-06	6.54E-05	7.34E-06	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.24E-06	4.79E-08	2.31E-07	-1.50E-06
ADP-fossil resources	MJ	3.17E+02	9.13E+01	5.84E+00	4.14E+02	2.29E+01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.31E+00	1.59E+00	2.73E+00	-3.67E+00
Water use[5)]	m^3e depr.	6.74E+00	4.59E-01	1.80E-01	7.38E+00	1.31E-01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	2.61E-02	5.10E-03	1.65E-02	-4.06E-01

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

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	1.69E+01	1.46E+00	3.33E+00	2.17E+01	5.56E-01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	9.18E-02	-8.17E-01	-5.86E-01	-3.13E-02
Renew. PER as material	MJ	0.00E+00	0.00E+00	1.43E+00	1.43E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-8.87E-01	-5.44E-01	8.03E-02
Total use of renew. PER	MJ	1.69E+01	1.46E+00	4.76E+00	2.31E+01	5.56E-01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	9.18E-02	-1.70E+00	-1.13E+00	4.90E-02
Non-re. PER as energy	MJ	3.17E+02	9.13E+01	2.64E+00	4.11E+02	2.29E+01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.31E+00	1.59E+00	2.73E+00	-3.67E+00
Non-re. PER as material	MJ	0.00E+00	0.00E+00	2.39E-01	2.39E-01	0.00E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-1.84E-01	-5.49E-02	1.47E-01
Total use of non-re. PER	MJ	3.17E+02	9.13E+01	2.88E+00	4.11E+02	2.29E+01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	5.31E+00	1.40E+00	2.68E+00	-3.52E+00
Secondary materials	kg	4.86E-01	3.95E-02	1.79E-03	5.28E-01	1.26E-02	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	2.43E-03	6.72E-04	9.09E-04	-6.72E-04
Renew. secondary fuels	MJ	0.00E+00	4.83E-04	1.23E-03	1.71E-03	1.36E-04	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.07E-05	1.88E-06	1.65E-05	-2.50E-05
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	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	6.56E+00	1.32E-02	4.20E-03	6.58E+00	3.63E-03	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.15E-04	1.15E-04	-3.31E-02	-9.72E-03

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	1.51E-03	1.31E-01	2.67E-02	1.60E-01	3.57E-02	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	7.62E-03	2.01E-03	4.61E-03	-2.64E-02
Non-hazardous waste	kg	6.45E+00	2.60E+00	1.53E+00	1.06E+01	8.68E-01	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.61E-01	5.68E-02	4.20E+01	-5.55E-01
Radioactive waste	kg	8.36E-05	2.66E-05	8.95E-06	1.19E-04	1.08E-05	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	1.68E-06	1.95E-07	8.91E-07	-6.84E-06

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	MND	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	1.12E+08	0.00E+00	1.44E-01	1.12E+08	0.00E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.73E+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	MND	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	2.77E-01	2.77E-01	0.00E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	1.59E-01	0.00E+00	0.00E+00
Exported energy – Electricity	MJ	0.00E+00	0.00E+00	1.18E-01	1.18E-01	0.00E+00	MND	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	1.59E-01	1.59E-01	0.00E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	9.20E-02	0.00E+00	0.00E+00

ADDITIONAL INDICATOR – 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	2.21E+01	6.35E+00	3.40E-01	2.88E+01	1.65E+00	MND	MND	MND	MND	MND	MND	MND	MND	0.00E+00	3.78E-01	1.21E-01	1.18E-01	-2.89E-01

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH4 fossil, CH4 biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation 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

11.08.2025

VERIFIED ISO 14025