



ENVIRONMENTAL PRODUCT DECLARATION

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

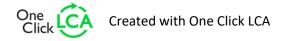
Void-Tek Premcrete



EPD HUB, HUB-3311

Published on 18.05.2025, last updated on 23.05.2025, valid until 18.05.2030

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.









GENERAL INFORMATION

MANUFACTURER

Manufacturer	Premcrete
Address	44 Macadam Way, West Portway, Andover, Hampshire, United Kingdom, SP10 3XW
Contact details	Sales@premcrete.com
Website	www.premcrete.com

EPD STANDARDS, SCOPE AND VERIFICATION

EPD Hub, hub@epdhub.com
EN 15804+A2:2019 and ISO 14025
EPD Hub Core PCR Version 1.1, 5 Dec 2023 EN 17388-2 Flexible sheets for waterproofing - Part 2: Cradle to gate with options
Construction product
Third party verified EPD
-
Cradle to gate with modules C1-C4, D
Simon Smallridge
Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☐ External verification
Imane Uald Lamkaddam as an authorized verifier for EPD Hub

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.

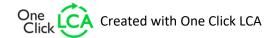
PRODUCT

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Product name	Void-Tek
Additional labels	VT50 / VT100 / VT150
Product reference	
Place(s) of raw material origin	
Place of production	Andover, UK
Place(s) of installation and use	
Period for data	2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3 (%)	
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-

ENVIRONMENTAL DATA SUMMARY

Declared unit	1m2
Declared unit mass	4.1 kg
GWP-fossil, A1-A3 (kgCO₂e)	1.19E+01
GWP-total, A1-A3 (kgCO₂e)	1.19E+01
Secondary material, inputs (%)	100
Secondary material, outputs (%)	22.9
Total energy use, A1-A3 (kWh)	18
Net freshwater use, A1-A3 (m³)	0.07







PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Premcrete supplies innovative groundwork solutions for major Construction and Infrastructure projects.

For over 40 years, Premcrete has been relied upon by the major groundworks contractors to supply waterproofing, gas protection, concrete repairs, technical grouts and joint sealant products.

We manufacture the full scope of Structural Waterproofing and Gas Protection Membranes for a variety of challenging applications.

Discover today how our solutions can help ensure your projects and structures join the Great British tradition of excellence and reliability.

PRODUCT DESCRIPTION

VOID-TEK is a collapsible void former which is used to protect concrete structures from the effects of ground heave, typically associated with clay soils. It is supplied in a thickness which is suited to accommodate the plasticity range as identified. The product consists of folding polypropylene sections which are bonded together to produce a robust structure which can withstand a load implied by up to 900mm thickness of concrete. Its unique structure means that it arrives on site just 31mm thick and is deployed in seconds to produce the required Void former. When the product collapses due to the upward pressure caused by ground heave, the VOID-TEK sheet will compress to a thickness of just 31mm creating the required void.

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

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals		
Minerals		
Fossil materials	100%	India
Bio-based materials		

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

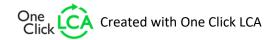
Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.0004895

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1m2
Mass per declared unit	4.1 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							U	se sta	ge		E	nd of I	ife stag	Beyond the system boundaries					
A1	A2	А3	A4	A5	B1	B2	В3	В4	В5	В6	В7	C1	C2	СЗ	C4		D		
×	×	×	MND	MND	MND	MN	N N	MN	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.

The provider dismantles mattress and creates flexible EOL PU bales. We receive these bales at the plant and at the beginning of the process line, bales are opened and EOL PU foam is shredded and grinded to obtain calibrated granulates. These granulates are then mixing with low melt polyester with appropriate mass balance and go into curing.

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.

A4 not relevant
A5 treatment of packaging waste

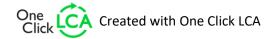
PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover use phase. Air, soil and water impacts during the use phase have not been studied.

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

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy in demolition process has been included. (C1) The distance for transportation to disposal is assumed as 50 km and the transportation method is assumed to be lorry. (C2) Considering the manufacturer's information, 50% of end-of-life product is assumed to be incinerated, 23% recycled and other 27% is landfilled. (C3, C4) Due to the incineration process, energy is generated. (D)

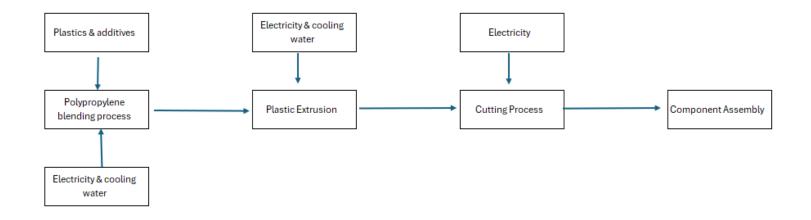






MANUFACTURING PROCESS

Void-Tek 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.

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/AC2021 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

AVERAGES AND VARIABILITY

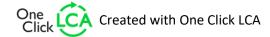
Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3 (%)	

No averaging

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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, Cutoff, EN 15804+A2'.







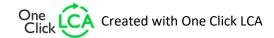
ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	СЗ	C4	D
GWP – total ¹⁾	kg CO₂e	1.13E+01	3.59E-01	2.72E-01	1.19E+01	MND	2.40E-03	MND	1.39E-03	6.44E-02	5.52E+00	1.33E-01	-3.75E+00						
GWP – fossil	kg CO₂e	1.13E+01	3.59E-01	2.74E-01	1.19E+01	MND	9.35E-05	MND	1.39E-03	6.44E-02	5.52E+00	1.33E-01	-3.79E+00						
GWP – biogenic	kg CO₂e	0.00E+00	2.67E-10	-1.80E-03	-1.80E-03	MND	2.31E-03	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.75E-02						
GWP – LULUC	kg CO₂e	1.42E-02	1.75E-04	7.45E-05	1.44E-02	MND	6.68E-08	MND	1.43E-07	2.88E-05	1.02E-04	8.11E-06	-3.53E-03						
Ozone depletion pot.	kg CFC-11e	1.91E-07	5.26E-09	3.01E-09	2.00E-07	MND	7.32E-13	MND	2.13E-11	9.50E-10	1.16E-09	3.21E-10	-1.22E-07						
Acidification potential	mol H⁺e	4.65E-02	4.72E-03	2.47E-04	5.14E-02	MND	2.50E-07	MND	1.26E-05	2.19E-04	9.32E-04	8.83E-05	-1.73E-02						
EP-freshwater ²⁾	kg Pe	4.17E-03	2.14E-05	1.09E-05	4.21E-03	MND	1.18E-08	MND	4.02E-08	5.01E-06	2.32E-05	1.31E-06	-1.51E-03						
EP-marine	kg Ne	9.79E-03	1.17E-03	6.11E-05	1.10E-02	MND	2.64E-07	MND	5.83E-06	7.21E-05	4.89E-04	2.94E-04	-2.68E-03						
EP-terrestrial	mol Ne	9.62E-02	1.29E-02	6.93E-04	1.10E-01	MND	1.02E-06	MND	6.38E-05	7.85E-04	4.29E-03	3.60E-04	-2.72E-02						
POCP ("smog") ³)	kg NMVOCe	3.88E-02	3.86E-03	1.92E-04	4.29E-02	MND	3.33E-07	MND	1.90E-05	3.23E-04	1.11E-03	1.56E-04	-1.65E-02						
ADP-minerals & metals ⁴)	kg Sbe	4.32E-05	8.61E-07	9.90E-07	4.50E-05	MND	1.28E-10	MND	4.99E-10	1.80E-07	7.03E-07	2.80E-08	-2.01E-05						
ADP-fossil resources	MJ	1.93E+02	4.79E+00	1.62E+00	1.99E+02	MND	6.32E-04	MND	1.82E-02	9.34E-01	1.00E+00	2.76E-01	-9.91E+01						
Water use ⁵⁾	m³e depr.	2.82E+00	1.91E-02	2.13E-02	2.86E+00	MND	1.80E-05	MND	4.55E-05	4.61E-03	1.60E-01	1.35E-03	-1.04E+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.

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ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	5.38E-07	2.03E-08	1.55E-09	5.60E-07	MND	4.37E-12	MND	3.57E-10	6.44E-09	7.52E-09	2.00E-09	-1.09E-07						
Ionizing radiation ⁶⁾	kBq 11235e	7.57E-01	3.27E-03	5.54E-02	8.16E-01	MND	1.67E-06	MND	8.06E-06	8.14E-04	4.68E-03	2.74E-04	-7.85E-01						
Ecotoxicity (freshwater)	CTUe	6.93E+01	6.11E-01	2.02E-01	7.01E+01	MND	2.25E-04	MND	1.00E-03	1.32E-01	1.53E+00	4.11E-01	-7.06E+00						
Human toxicity, cancer	CTUh	2.53E-09	6.65E-11	2.87E-11	2.63E-09	MND	2.36E-14	MND	1.43E-13	1.06E-11	2.31E-10	6.49E-12	-6.12E-10						
Human tox. non-cancer	CTUh	8.86E-08	2.34E-09	1.29E-09	9.23E-08	MND	1.25E-12	MND	2.27E-12	6.05E-10	8.89E-09	1.28E-09	-3.05E-08						
SQP ⁷⁾	-	2.78E+01	1.97E+00	1.11E+00	3.09E+01	MND	5.95E-04	MND	1.28E-03	9.41E-01	1.04E+00	6.43E-01	-1.62E+01						

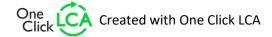
6) EN 15804+A2 disclaimer for lonizing radiation, human health. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive 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	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Renew. PER as energy ⁸⁾	MJ	1.16E+01	5.55E-02	5.39E-01	1.22E+01	MND	-1.85E-02	MND	1.15E-04	1.28E-02	7.58E-02	4.32E-03	-8.14E+00						
Renew. PER as material	MJ	0.00E+00	0.00E+00	1.57E-02	1.57E-02	MND	-1.57E-02	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-03						
Total use of renew. PER	MJ	1.16E+01	5.55E-02	5.55E-01	1.22E+01	MND	-3.43E-02	MND	1.15E-04	1.28E-02	7.58E-02	4.32E-03	-8.14E+00						
Non-re. PER as energy	MJ	4.94E+01	4.79E+00	-1.56E+00	5.27E+01	MND	-9.95E-04	MND	1.82E-02	9.34E-01	-1.18E+02	-4.32E+01	-1.08E+02						
Non-re. PER as material	MJ	1.44E+02	0.00E+00	-2.81E+00	1.41E+02	MND	-2.35E-03	MND	0.00E+00	0.00E+00	-1.03E+02	-3.80E+01	4.00E+01						
Total use of non-re. PER	MJ	1.93E+02	4.79E+00	-4.37E+00	1.93E+02	MND	-3.34E-03	MND	1.82E-02	9.34E-01	-2.21E+02	-8.12E+01	-6.82E+01						
Secondary materials	kg	5.64E+00	2.22E-03	3.80E-04	5.64E+00	MND	4.70E-07	MND	7.56E-06	3.98E-04	4.03E-03	9.98E-05	9.84E-01						
Renew. secondary fuels	MJ	4.85E-03	1.94E-05	5.34E-04	5.41E-03	MND	4.62E-09	MND	1.98E-08	5.05E-06	2.91E-05	1.87E-06	-9.64E-05						
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	0.00E+00	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Use of net fresh water	m³	7.28E-02	5.34E-04	4.16E-04	7.38E-02	MND	-1.62E-06	MND	1.20E-06	1.38E-04	1.31E-03	-4.10E-03	-3.61E-02						

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8) PER = Primary energy resources.







END OF LIFE – WASTE

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	С3	C4	D
Hazardous waste	kg	8.34E-01	7.64E-03	4.22E-03	8.45E-01	MND	4.43E-06	MND	2.03E-05	1.58E-03	5.40E-02	4.85E-04	-1.91E-01						
Non-hazardous waste	kg	3.15E+01	1.31E-01	1.42E-01	3.18E+01	MND	2.88E-03	MND	2.76E-04	2.93E-02	2.46E+00	5.51E+00	-2.35E+01						
Radioactive waste	kg	1.85E-04	7.99E-07	1.21E-05	1.98E-04	MND	4.16E-10	MND	1.98E-09	1.99E-07	1.19E-06	6.71E-08	-2.01E-04						

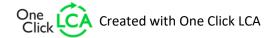
END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	С3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	0.00E+00	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	4.16E-04	MND	0.00E+00	0.00E+00	9.40E-01	0.00E+00	0.00E+00						
Materials for energy rec	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	0.00E+00	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	MND	2.28E-03	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	0.00E+00	0.00E+00	MND	9.40E-04	MND	0.00E+00	0.00E+00	1.07E+01	0.00E+00	0.00E+00						
Exported energy – Heat	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	1.34E-03	MND	0.00E+00	0.00E+00	1.47E+01	0.00E+00	0.00E+00						

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO₂e	1.12E+01	3.57E-01	2.74E-01	1.19E+01	MND	1.21E-04	MND	1.38E-03	6.40E-02	5.52E+00	1.27E-01	-3.71E+00						
Ozone depletion Pot.	kg CFC-11e	1.68E-07	4.19E-09	2.47E-09	1.75E-07	MND	5.89E-13	MND	1.69E-11	7.58E-10	9.73E-10	2.57E-10	-9.91E-08						
Acidification	kg SO₂e	3.84E-02	3.78E-03	1.93E-04	4.23E-02	MND	1.86E-07	MND	8.83E-06	1.68E-04	6.69E-04	6.56E-05	-1.46E-02						
Eutrophication	kg PO ₄ ³e	1.38E-01	4.66E-04	4.90E-05	1.38E-01	MND	6.67E-08	MND	2.06E-06	4.08E-05	2.06E-04	4.29E-05	-2.63E-03						
POCP ("smog")	kg C₂H₄e	2.81E-03	2.06E-04	1.35E-05	3.02E-03	MND	2.10E-08	MND	6.62E-07	1.49E-05	5.06E-05	2.46E-05	-1.12E-03						
ADP-elements	kg Sbe	4.25E-05	8.42E-07	9.84E-07	4.43E-05	MND	1.23E-10	MND	4.85E-10	1.75E-07	6.66E-07	2.72E-08	-1.98E-05						
ADP-fossil	MJ	1.81E+02	4.74E+00	8.84E-01	1.87E+02	MND	6.04E-04	MND	1.81E-02	9.21E-01	9.23E-01	2.71E-01	-8.53E+01						

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ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	С3	C4	D
GWP-GHG ⁹⁾	kg CO₂e	1.13E+01	3.59E-01	2.74E-01	1.20E+01	MND	9.36E-05	MND	1.39E-03	6.44E-02	5.52E+00	1.33E-01	-3.79E+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.

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited 18.05.2025



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