



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Velstone Solid Surface

EPD HUB, HUB-7520

Published on 18.09.2026, last updated on 18.09.2026, valid until 17.09.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Velstone Limited
Address	2n Argyle House. Joel Street. Northwood. HA6 1NW. United Kingdom.
Contact details	info@velstone.com
Website	www.velstone.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 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	Not applicable
Scope of the EPD	Cradle to gate with options, A4-B7, 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 verification External verification
EPD verifier	Magaly Gonzalez Vazquez 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

Product name	Velstone Solid Surface
Additional labels	See appendix for list of products covered by this EPD
Product reference	Based on a product of 13mm thickness
Place(s) of raw material origin	China
Place of production	Taixing, Jiangsu, China
Place(s) of installation and use	UK
Period for data	01 January 2025 - 31 December 2025
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	+14% / -9%
A1-A3 Specific data (%)	5.38

ENVIRONMENTAL DATA SUMMARY

Declared unit	1m ² (13mm thickness)
Declared unit mass	23 kg
Mass of packaging	0.038 kg
GWP-fossil, A1-A3 (kgCO₂e)	90.2
GWP-total, A1-A3 (kgCO₂e)	90.2
Secondary material, inputs (%)	0.16
Total energy use, A1-A3 (kWh)	256
Net freshwater use, A1-A3 (m³)	0.44



PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Since 1991, we've been at the forefront of solid surface innovation, shaping the industry with a dedication to quality and a deep understanding of the needs of architects, designers and specifiers.

We are one of only five companies globally with more than 30 years of experience manufacturing solid surfaces, a testament to our dedication to quality and innovation – and for crafting high-performance solid surfaces renowned for their beauty and durability.

As a family-built business, with our founders actively involved to this day, our core values and commitment to quality are woven into the very fabric of the Velstone.

PRODUCT DESCRIPTION

Velstone is a solid surface material made from aluminium hydroxide bonded together using resin with the addition of pigments for colour.

The product is available in a maximum width of 900mm and in standard thicknesses of 13mm and 25mm. 13mm sheet thickness should be used for all horizontal applications. 25mm sheet thickness should be used where straight length worktops are required. For vertical cladding applications, 13mm thick Velstone should be used.

The product is available in a range of styles and colours to suit a range of residential and commercial applications. This EPD is based on a 13mm thick sheet of material, for comparison the results for a 25mm thick sheet of material are provided as a scaling table in the appendix.



PRODUCT TECHNICAL DATA

Properties	Results	Test Method
Tensile strength, PSI	5060 PSI	ASTM D638-91
Modulus of Elastic (Young's)	919,000 PSI	ASTM D638-91
Flexural strength	10300 PSI	ASTM D790
Flexural modulus	1566970 PSI	ASTM D790
Density	1.7 g/cm3	ASTM D792-91
Elongation %	0.6	ASTM D638-91
Hardness	89	D785-89
Abrasion resistance	0.27	ASTM C501-84
Boiling water surface resistance	No Effect	NEMA LD3-3.05
High temperature resistance	No Effect	NEMA LD3-3.06
Ball Impact, Inch Drop	>120	NEMA LD3-3.03

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

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	n/a
Minerals	43	China
Fossil Materials	57	China
Bio-based Materials	0	n/a

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	0.016

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1m ² (13mm thickness)
Mass per declared unit	23 kg
Functional unit	1 square metre of solid surface worktop with a thickness of 13mm installed for 10 years
Reference service life	10 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	X	ND	X	ND	ND	ND	ND	ND	X	X	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

Not declared = ND.

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 product is comprised of aluminium hydroxide, methyl methacrylate blended resin, catalyst, inorganic pigments and, optionally, chipped fragments of other sheets which are added to create certain sheet styles. The chipped fragments are created by first producing a sheet in a solid colour, which is then mechanically chipped to create the fragments required by other styles. The percentage of total product mass from chipped fragments ranges between 0.87% and 29.65% depending on the specific product style.

The raw materials are sourced from within China and are transported to the Chinese manufacturing facility. The factory consumes medium voltage electricity drawn from the grid. Diesel is consumed by the factory for powering forklifts. Production losses in the form of offcuts and waste from sanding are transported offsite for disposal. Transportation to disposal (landfill) is 103km via 16-32 tonne lorry.

The product is packaged using plastic banding and a wooden pallet.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation to the UK is via a combination of road and container ship. Once the product reaches the Velstone warehouse in the UK it is temporarily stored before being dispatched to site.

The semi-finished product is transported to distributors / fabricators where the product is prepared for installation. Transportation to distributors / fabricators is via 16-32 tonne lorry at a distance of 200km. The semi-finished product is cut to size before being shipped to site. Product losses in the form of offcuts at the point of fabrication are assumed to be 10%. This waste is assumed to be transported 85km via 16-32 tonne lorry and assumed to reach

landfill. Installation involves the use of hand-held power tools using low-voltage electricity drawn from the UK grid. As the product is fabricated off-site, actual installation waste is minimal and conservatively set at 1%. Packaging waste leaves the system boundary at the point of installation.

PRODUCT USE AND MAINTENANCE (B1-B7)

During its reference service life the product requires cleaning with water and detergent only. No repair, replacement or refurbishment is anticipated. The product does not require any operational energy or water during its use stage. The reference service life for Velstone in this EPD is 10 years; this has been selected to align with the product warranty.

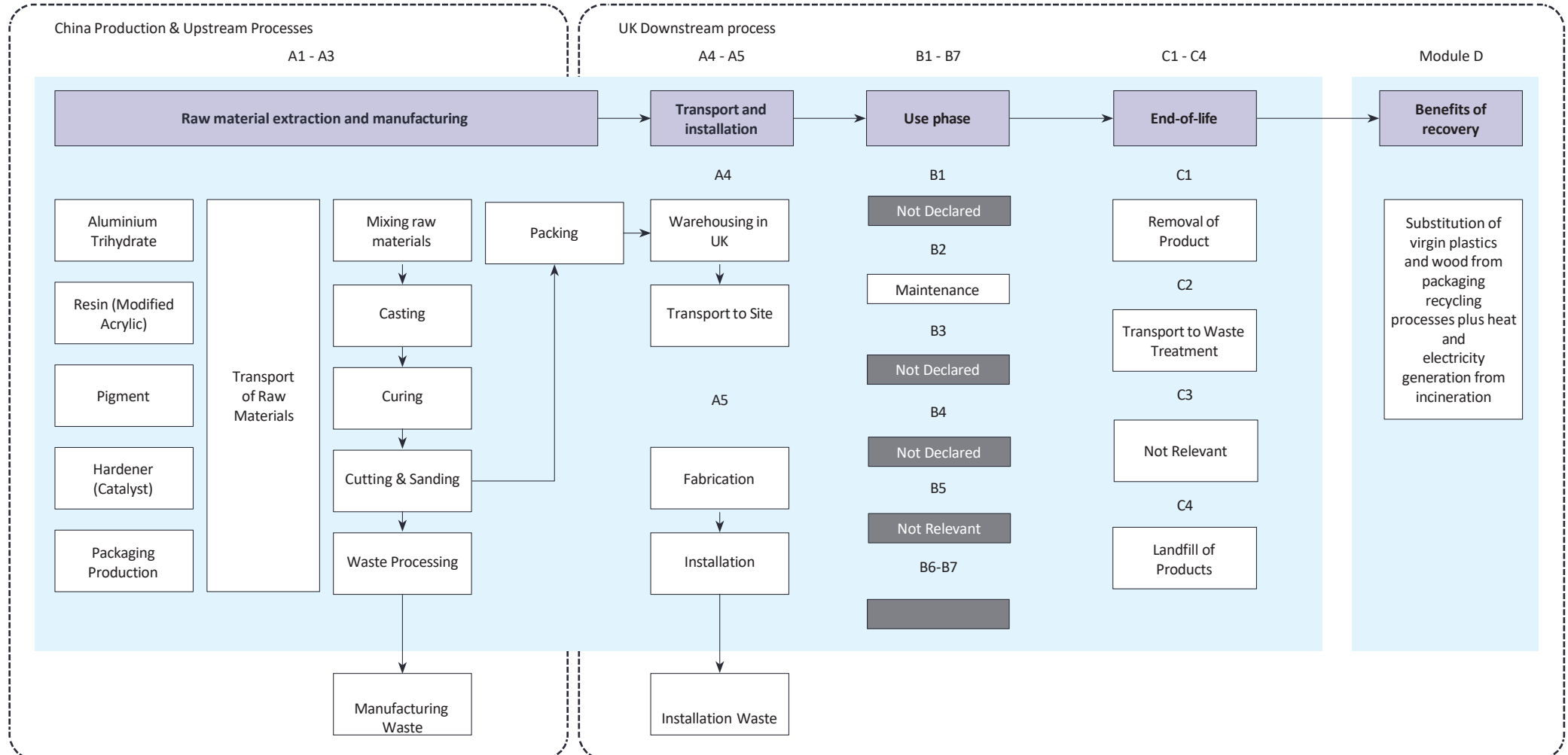
PRODUCT END OF LIFE (C1-C4, D)

At the end of its life the product can be manually removed i.e. no energy required for removal. End of Life assumed to take place in the UK. It is assumed that the product is transported 85km for disposal via 16-32 tonne lorry. Due to the fire and heat retardant properties of the product, and lack of an established recycling mechanism for solid surface panels, it is conservatively assumed that the product will be disposed of (reach landfill) with no benefits. This scenario is currently in use and is representative of the most likely end-of-life scenario.



Velstone Solid Surface

SYSTEM BOUNDARY DIAGRAM



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

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.

Note on indicator consistency: A technical inconsistency between PENRT (Total use of non-renewable primary energy) and ADP-fossil (Abiotic depletion potential for fossil resources) results in modules A1-A3 has been identified. A contribution analysis shows that the discrepancy originates from the specific characterisation factors in the background environmental profiles of the primary raw materials (Methyl methacrylate). These inconsistencies are inherent to the background databases used and cannot be adjusted by the practitioner.

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	No allocation
Ancillary materials	No allocation
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, %	+14% / -9%

A screening LCA has been conducted based on A1 raw material inputs only to determine the GWP-Fossil results for each product within the range. Module A1 represents 95.6% of the A1-A3 GWP-Fossil impacts. Based on this an average (mean) was calculated and the product with the GWP-Fossil closest to the average (mean) was selected as the representative product. This approach to identifying a representative product was taken due to actual production volumes varying significantly year-on-year depending on specific projects delivered by Velstone; therefore, basing the representative product on production volumes alone during any one reference year would yield unrepresentative results.

projects delivered by Velstone; therefore, basing the representative product on production volumes alone during any one reference year would yield unrepresentative results.

The material which was closest to the average (mean) was determined to be Silver Dust (reference 1408) with a GWP-Fossil (A1-A3) impact of 90.2 kg CO₂e / m². The material yielding the highest GWP-Fossil (A1-A3) is Lunar Cloud (reference O-444) at 102.92 kg CO₂e / m² representing the maximum / worst case scenario. The material with the lowest GWP-Fossil (A1-A3) is Lola (reference 15000) at 82.13 kg CO₂e / m² representing the minimum / best case scenario. Users of the EPD may choose to multiply GWP-fossil results by worst case scenario to ensure complete coverage for any product style within the range.

The variation between the representative product and worst / best case scenarios is therefore as follows:

Maximum (worst case): + 14%
Representative Product
Minimum (best case): -9%

The variation between the materials is driven by the ratio of different ingredients per specific style / design with the resin driving the majority of the GWP-Fossil impact. Averaging is of module A1 only and there is only one manufacturing facility in China; there are no geographical restrictions regarding use of the EPD.



All other materials within the Velstone range (see appendix for full list) are determined to fall within the tolerance listed above based on the screening LCA of the A1 GWP-Fossil impacts.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.5. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

End of Life scenarios for packaging is taken from (source: EUROSTAT, https://ec.europa.eu/eurostat/databrowser/view/env_waspac_custom_8519174/default/table?lang=en)



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 ₂ e	8,46E+01	1,97E+00	3,60E+00	9,02E+01	7,83E+00	1,30E+01	ND	2,41E+01	ND	ND	ND	ND	ND	0,00E+00	3,91E-01	0,00E+00	2,15E+00	-2,26E-02
GWP – fossil	kg CO ₂ e	8,45E+01	1,97E+00	3,65E+00	9,02E+01	7,82E+00	1,29E+01	ND	2,97E+01	ND	ND	ND	ND	ND	0,00E+00	3,91E-01	0,00E+00	2,14E+00	-8,45E-03
GWP – biogenic	kg CO ₂ e	9,80E-02	2,11E-03	-4,78E-02	5,23E-02	4,10E-04	5,51E-02	ND	-7,98E+00	ND	ND	ND	ND	ND	0,00E+00	9,26E-05	0,00E+00	1,05E-03	-1,41E-02
GWP – LULUC	kg CO ₂ e	1,32E-02	2,94E-03	2,20E-04	1,64E-02	4,20E-03	2,35E-03	ND	2,33E+00	ND	ND	ND	ND	ND	0,00E+00	1,76E-04	0,00E+00	1,55E-04	-9,39E-06
Ozone depletion pot.	kg CFC- _{11e}	4,36E-07	4,56E-08	2,47E-08	5,06E-07	1,28E-07	7,42E-08	ND	1,68E-06	ND	ND	ND	ND	ND	0,00E+00	5,68E-09	0,00E+00	6,86E-09	-2,15E-10
Acidification potential	mol H ⁺ e	4,79E-01	6,33E-03	1,87E-02	5,04E-01	9,82E-02	7,78E-02	ND	2,02E-01	ND	ND	ND	ND	ND	0,00E+00	9,34E-04	0,00E+00	1,82E-03	-4,36E-05
EP-freshwater ²⁾	kg Pe	9,62E-03	1,41E-04	5,90E-04	1,04E-02	4,43E-04	1,29E-03	ND	1,27E-02	ND	ND	ND	ND	ND	0,00E+00	4,26E-05	0,00E+00	2,72E-05	-4,08E-06
EP-marine	kg Ne	9,10E-02	2,24E-03	1,92E-02	1,12E-01	3,97E-02	2,42E-02	ND	9,83E-02	ND	ND	ND	ND	ND	0,00E+00	2,25E-04	0,00E+00	4,77E-02	-6,95E-06
EP-terrestrial	mol Ne	7,19E-01	2,41E-02	2,92E-02	7,72E-01	4,40E-01	1,53E-01	ND	4,43E-01	ND	ND	ND	ND	ND	0,00E+00	2,40E-03	0,00E+00	7,60E-03	-6,95E-05
POCP (“smog”) ³⁾	kg NMVOCe	3,32E-01	1,03E-02	9,00E-03	3,51E-01	1,21E-01	6,05E-02	ND	1,31E-01	ND	ND	ND	ND	ND	0,00E+00	1,30E-03	0,00E+00	3,12E-03	-3,23E-05
ADP-minerals & metals ⁴⁾	kg Sbe	1,27E-04	6,04E-06	9,82E-07	1,34E-04	1,80E-05	1,96E-05	ND	3,72E-04	ND	ND	ND	ND	ND	0,00E+00	1,35E-06	0,00E+00	4,94E-07	-2,01E-08
ADP-fossil resources	MJ	1,38E+03	2,84E+01	3,51E+01	1,45E+03	1,01E+02	2,02E+02	ND	4,91E+02	ND	ND	ND	ND	ND	0,00E+00	5,40E+00	0,00E+00	5,67E+00	-1,88E-01
Water use ⁵⁾	m ³ e depr.	1,76E+01	1,63E-01	2,39E+01	4,16E+01	3,91E-01	4,97E+00	ND	3,64E+01	ND	ND	ND	ND	ND	0,00E+00	2,85E-02	0,00E+00	2,49E-01	-2,61E-03

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	4,56E-06	1,91E-07	7,41E-08	4,83E-06	3,46E-07	6,70E-07	ND	2,29E-06	ND	ND	ND	ND	ND	0,00E+00	2,85E-08	0,00E+00	4,14E-08	-3,14E-10
Ionizing radiation ⁶⁾	kBq U235e	1,56E+00	3,09E-02	4,44E-02	1,64E+00	6,91E-02	2,15E-01	ND	1,76E+00	ND	ND	ND	ND	ND	0,00E+00	4,28E-03	0,00E+00	4,58E-03	-2,09E-03
Ecotoxicity (freshwater)	CTUe	2,89E+02	4,15E+00	3,36E+01	3,26E+02	1,45E+01	4,97E+01	ND	4,77E+02	ND	ND	ND	ND	ND	0,00E+00	1,23E+00	0,00E+00	7,84E+01	-1,42E-01
Human toxicity, cancer	CTUh	1,20E-08	3,17E-10	2,94E-10	1,26E-08	1,58E-09	1,64E-09	ND	3,69E-08	ND	ND	ND	ND	ND	0,00E+00	6,19E-11	0,00E+00	1,41E-10	-1,24E-12
Human tox. non-cancer	CTUh	1,59E-07	1,77E-08	2,52E-08	2,02E-07	4,07E-08	3,22E-08	ND	4,80E-07	ND	ND	ND	ND	ND	0,00E+00	3,30E-09	0,00E+00	2,50E-08	-5,27E-11
SQP ⁷⁾	-	1,79E+01	2,68E+01	1,15E+01	5,62E+01	2,83E+01	1,15E+01	ND	4,84E+02	ND	ND	ND	ND	ND	0,00E+00	3,25E+00	0,00E+00	1,34E+01	-3,41E-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	1,96E+01	4,56E-01	7,23E-01	2,07E+01	1,16E+00	2,15E+00	ND	1,15E+02	ND	ND	ND	ND	ND	0,00E+00	7,64E-02	0,00E+00	7,78E-02	9,04E-02
Renew. PER as material	MJ	0,00E+00	0,00E+00	5,25E-01	5,25E-01	0,00E+00	-5,25E-01	ND	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,40E-01
Total use of renew. PER	MJ	1,96E+01	4,56E-01	1,25E+00	2,13E+01	1,16E+00	1,62E+00	ND	1,15E+02	ND	ND	ND	ND	ND	0,00E+00	7,64E-02	0,00E+00	7,78E-02	2,30E-01
Non-re. PER as energy	MJ	1,08E+03	2,85E+01	-2,11E+02	8,99E+02	1,01E+02	5,69E+01	ND	4,41E+02	ND	ND	ND	ND	ND	0,00E+00	5,40E+00	0,00E+00	-7,10E+02	-1,88E-01
Non-re. PER as material	MJ	3,02E+02	0,00E+00	-7,78E+01	2,24E+02	0,00E+00	-3,47E-02	ND	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	-2,24E+02	5,94E-02
Total use of non-re. PER	MJ	1,38E+03	2,85E+01	-2,88E+02	1,12E+03	1,01E+02	5,68E+01	ND	4,41E+02	ND	ND	ND	ND	ND	0,00E+00	5,40E+00	0,00E+00	-9,34E+02	-1,29E-01
Secondary materials	kg	3,77E-02	1,23E-02	4,69E-03	5,47E-02	5,28E-02	1,30E-02	ND	1,75E-01	ND	ND	ND	ND	ND	0,00E+00	2,41E-03	0,00E+00	1,94E-03	1,36E-03
Renew. secondary fuels	MJ	2,90E-04	1,62E-04	1,78E-02	1,83E-02	3,05E-04	2,06E-03	ND	4,00E-03	ND	ND	ND	ND	ND	0,00E+00	3,14E-05	0,00E+00	3,91E-05	-1,09E-07
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m³	4,22E-01	3,82E-03	1,21E-02	4,38E-01	8,77E-03	4,71E-02	ND	8,36E-01	ND	ND	ND	ND	ND	0,00E+00	7,21E-04	0,00E+00	-8,61E-02	-6,04E-05

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	1,29E+01	1,65E-01	3,55E-02	1,31E+01	6,03E-01	1,54E+00	ND	1,04E+01	ND	ND	ND	ND	ND	0,00E+00	3,79E-02	0,00E+00	2,88E-02	-4,39E-04
Non-hazardous waste	kg	8,91E+01	3,16E+00	3,19E+01	1,24E+02	4,69E+00	2,11E+01	ND	1,97E+03	ND	ND	ND	ND	ND	0,00E+00	4,96E-01	0,00E+00	6,15E+01	-4,52E-02
Radioactive waste	kg	3,72E-04	7,45E-06	7,10E-06	3,87E-04	1,65E-05	5,06E-05	ND	4,42E-04	ND	ND	ND	ND	ND	0,00E+00	1,02E-06	0,00E+00	1,09E-06	-5,36E-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	0,00E+00	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	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	0,00E+00	1,24E-02	ND	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	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	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	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	0,00E+00	7,45E-02	ND	0,00E+00	ND	ND	ND	ND	ND	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	0,00E+00	3,14E-02	ND	0,00E+00	ND	ND	ND	ND	ND	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	0,00E+00	4,31E-02	ND	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	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 ₂ e	8,45E+01	1,97E+00	3,65E+00	9,02E+01	7,82E+00	1,29E+01	ND	3,20E+01	ND	ND	ND	ND	ND	0,00E+00	3,91E-01	0,00E+00	2,14E+00	-8,46E-03

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

SCENARIO DOCUMENTATION

DATA SOURCES

Scenario	Parameter	Units	Amount
A3 – Manufacturing Energy	Manufacturing electricity using Electricity, consumption mix w/o renewables, China, 2023, China, One Click LCA	kgCO ² e/kWh	1.15
	Manufacturing diesel consumption using Diesel, burned in building machine, World, Ecoinvent	kgCO ² e/MJ	0.10
A4 – Storage and Transport to the building site	A4 transportation includes transport from the factory to the port via road, transport via container ship from China to UK, transportation within the UK from the port to the Velstone warehouse, and finally transportation to site via a distribution network of fabricators (nominal distance of 200km).		
	Warehousing electricity using Electricity, medium voltage, residual mix, United Kingdom, Ecoinvent	kgCO ² e/kWh	0.51
	Distance – Sea, Container Ship	km	22,594
	Distance – Road, 16-32 tonne lorry	km	630
	Capacity utilisation (incl. empty returns)	%	50
	Bulk density of transported products	kg/m ³	1650
	Volume capacity utilisation factor	-	1
A5 - Installation	Electricity, low voltage, residual mix, United Kingdom, Ecoinvent used to represent the use of handheld power tools during installation.	kWh	0.1
	No water is required for installation	m ³	-
	Methyl methacrylate production, World, Ecoinvent used to represent resin used during installation	kg	0.25
	Treatment of waste plastic, mixture, sanitary landfill used to represent disposal of offcuts arising from fabrication (10%) and product installation (1%) waste	%	11
	Plastic packaging strapping waste (37% to incineration, 23% to landfill, 40% recycled)	kg	0.00322
	Waste pallet at end of life assuming 10 reuses (32% to incineration, 38% landfill, 30% recycled)	kg	0.03478
B1 – Use	Velstone does not emit any emissions to air during use, so this module is not declared (ND)		

B2 – Maintenance	Once installed the product can be maintained through regular cleaning with water and detergent. No additional maintenance is required.		
	Assumed daily cleaning with water and detergent over 10 year RSL	Cycles/RSL	3,650
	No maintenance energy use is required	kWh/cycle	-
	0.5 litres of water used per daily cleaning cycle.	Litres/cycle	0.5
	2.5 grams of cleaning detergent used per daily cleaning cycle	kg/cycle	0.0025
	Wastewater treatment of daily cleaning water and detergent at 0.5025 kg	kg/cycle	0.5025
B3 – Repair	No repair of Velstone is anticipated during the 10 year service life.		
B4 – Replacement	No replacement of Velstone is anticipated during the 10 year service life.		
B5 – Refurbishment	No refurbishment of Velstone is anticipated during the 10 year service life.		
B6 – Use of Energy	No energy is required for Velstone to ‘operate’ during its use. Therefore, this module is not declared.		
B7 – Use of Water	No water is required for Velstone to ‘operate’ during its use. Therefore, this module is not declared.		
C1 – End of Life Deconstruction	Collection process: collected separately (kg) – Velstone is likely to be removed and replaced during the lifespan of the building and therefore separate collection is the most likely scenario	kg	23
	Collection process: Mixed waste (kg) – not relevant, it is assumed that Velstone is 100% collected separately	kg	-
C2 – End of Life Transport	Transportation to disposal (landfill) is assumed to be 85km via 16-32 tonne lorry.	Km	85
C3 – End of Life Pre-Processing	Re-use	kg	-
	Recycling	kg	-
	Energy recovery	kg	-
C4 – End of Life Disposal	Due to the fire and heat retardant properties of the product, and lack of an established recycling mechanism for solid surface panels, it is conservatively assumed that the product will be disposed of (reach landfill) with no benefits.	kg	23

APPENDIX

SCALING TABLE

The following scaling table refers to the A1-A3 GWP results for Velstone with a sheet thickness of 25mm and a declared unit of 1 m².

Results are based on the representative product of multiple products (see Averages and Variability section) and scaled according to product height.

Impact Category		Unit	A1-A3
Product Height		mm	25
Product Mass		Kg/DU	45
EN 15804+A2	GWP – Total	kg CO ² e	163.22
	GWP – Fossil	kg CO ² e	163.1
	GWP – Biogenic	kg CO ² e	0.09
	GWP - LULUC	kg CO ² e	0.03

LIST OF MATERIALS AND CODES

Material	Code
White Onyx	O-101
Orion Onyx	O-401
Lunar Sand	O-302
Lunar Rock	O-410
Lunar Cloud	O-444
Cygnnet Onyx	O-310
Cosmic Snow	C-505
Cosmic Pearl	C-502
Cosmic Latte	C-501
Cosmic Ice	C-503
Cosmic Asher	C-504
Cosmic Dust	C-444
Virgin Frost	1184
Starlight	13010
Talisman	4891
Stone Ash	12000
Silver Dust	1408
Peppercorn	13000
Packice	5092
Oat Flake	12010
Grey Sapphire	9909
Festival	8533

Material	Code
Black Opal	6513
Antelope	3307
Virgin White	779
Soft White	30
Silver Ash	113
Champagne	1287
Lola	15000
Vector Blue	15441
Core Aqua	15513
Chilli	16000
Tangelo	3003
Grey Cygnnet	O-431

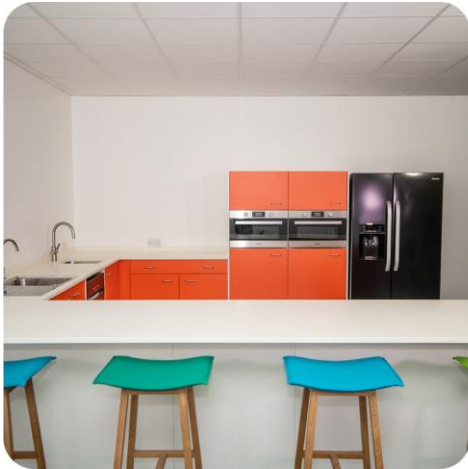
THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.



The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Magaly Gonzalez Vazquez as an authorized verifier for EPD Hub Limited 18.09.2026

