ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025 and EN 15804:2012+A2:2019/AC:2021 for:

weberpral E chalk monocouche render

Version 2
Date of publication: 2024-10-18
Revision Date: 2024-11-18
Validity: 5 years
Valid until: 2029-10-17

The International EPD® System
www.environdec.com
Programme Operator: EPD International AB
Registration number: EPD-IES-0017224

EPD Type: Single Product
Scope of the EPD®: Cradle-to-gate with options (A4-A5, B1), Module C and Module D

Disclaimer: Product not yet on the market – Results of this EPD shall be used with care as the LCI data is not yet based on 1 year of production which may result in increased uncertainty.

Production plant: Saint-Gobain Weber, Telford, Shropshire TF7 4LP

General information

Company information

Manufacturer: Saint-Gobain Weber [1]
Site of Manufacture: Halesfield 25, Telford TF7 4LP, United Kingdom
Management system - related certifications: ISO 14001 [2], ISO 45001 [3], ISO 9001[4]

Product Name: weberpral E monocouche render
EPD for Multiple Products: ☒ No ☐ Yes
UN CPC Code: 3751 – Non-refractory mortars and concretes

Owner of the Declaration: Saint-Gobain Construction Products UK Ltd t/a Saint-Gobain Weber
EPD® Prepared by: Daniel Moss (daniel.moss@saint-gobain.com); Charnett Chau (charnett.chau@saint-gobain.com) and Michael Barnett (michael.barnett@netweber.co.uk)
Geographical Scope of the EPD®: United Kingdom
EPD® Registration Number: EPD-IES-0017224
Declaration Issued: 2024-10-18 valid until 2029-10-17
Demonstration of Verification: an independent verification of the declaration was made, according to ISO 14025:2010 [5]. This verification was external and conducted by the following third party based on the PCR mentioned above.

Programme information

PROGRAMME:	The International EPD® System [6]
ADDRESS:	EPD International AB - Box 210 60 - SE-100 31 Stockholm - Sweden
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CEN standard EN 15804:2012 + A2:2019 [7] serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction Products, version 1.3.4 [8]
c-PCR-017 Technical-chemical products (for construction sector) [9]
PCR review was conducted by: The Technical Committee of the International EPD® System
See www.environdec.com for a list of members.
Chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact - Contact via info@environdec.com
Independent third-party verification of the declaration and data, according to ISO 14025:2006:
☐ EPD process certification ☒ EPD verification
Third party individual verifier: Matthew Fishwick, Fishwick Environmental Ltd.
Email: matt@fishwickenvironmental.com; Approved by: The International EPD® System.
Signature:
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

The EPD owner has sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Product Description

Product Description and Description of Use

This Environmental Product Declaration (EPD®) describes the environmental impacts of **1 kg of weberpral E chalk, as applied**.

weberpral E (monocouche) is a weather-resistant exterior render manufactured at the Saint-Gobain Weber site in Telford, United Kingdom is ideal for new build or refurbishment projects. Monocouche can be used to produce a range of finishes:

- Scraped
- Sprayed roughcast
- Dry dash

It can be used to create ashlar and quoin features, and is suitable for use on entire elevations, feature panels or smaller areas such as garden walls with an expected service life of at least 25 years.

Note: As the product was not yet on the market at the time of EPD development, the LCA was built based on manufacturing of a similar product, weberpral M, with a valid EPD [10]. Where the difference in modelling lies only with the composition, mainly cement and glass cullet. The LCA will be revisited one year after product launch. Once such data is available, an update and re-verification shall be done within six months, otherwise the EPD will be depublished. The contract with the verifier shall ensure the verifier takes part in the follow-up activities during the EPD validity period.

Technical data/physical characteristics:

Essential Characteristics*	Performance	Standard
Compressive Strength	Class CSIII	EN 1015-11:1999 (EN 998-1:2-16)
Water Vapour Permeability	μ ≤15	BS EN 1015-19:1999 (EN 998-1:2016)
Thermal Conductivity	0.61 W/(m.K)	EN 1745:2012, Table A.12 (EN 998-1:2016)
Reaction to Fire	Class A1-s1 (1% organic content)	BS EN 13501-1:2018 (BS EN 998-1:2016, 5.3.3)

*For further technical details, please visit our product webpage. [11]

Declaration of the Main Product Components and/or Materials

All raw materials contributing more than 5% to any environmental impact are listed in the following table.

PRODUCT COMPONENTS	Mass (%)	Post-consumer recycled content %	Biogenic Carbon Content (%) (kg)*
Limestone	≤ 81	0	0
Cement	≤ 12	0	0
Other Raw Materials	≤7	0	0.28 **(Per DU = 0.0002)**
Total	100	0	See Biogenic Results
PACKAGING MATERIALS	**Mass kg**	**Mass (%) vs. product**	**Biogenic Carbon Content (%) (kg)***
Bag (paper + PE)	0.004	< 0.5	0.44 **(Per DU = 0.0018)**
Pallet	0.025	<2.5	0.41 **(Per DU = 0.01)**
HPDE Sheet	0.00015	< 0.01	0
Stretch Release Wrap	0.00006	<0.01	0
Total	0.029	< 2.9	See Biogenic Results

*Biogenic carbon content in % is equivalent to carbon mass per overall mass of material (kgC/kg).

During the life cycle of the product any hazardous substance listed in the “Candidate List of Substances of Very High Concern (SVHC) [12] for authorization” has been used in a percentage higher than 0.1% of the weight of the product. The verifier and the programme operator do not make any claim nor have any responsibility for the legality of the product.

RAW MATERIAL CATEGORY	WEBERPRAL E (MASS %)	PACKAGING (MASS %)
Metals	0	0
Minerals	> 99.5	0
Fossil materials	< 0.1	< 10
Bio-based materials	< 0.1	> 90
Other organic materials	0	0
Other inorganic materials	0	0

LCA Calculation Information

TYPE OF EPD	Cradle-to-gate with options (A4-A5, B1), Module C and Module D
DECLARED UNIT	1 kg weberpral E chalk, as applied.
SYSTEM BOUNDARIES	A1-A3; A4-A5; B1; C1-C4 and D
REFERENCE SERVICE LIFE (RSL)	25 years
CUT-OFF RULES	In the case that there is not enough information, the process energy and materials representing less than 1% of the whole energy and mass used can be excluded (if they do not cause significant impacts). The addition of all the inputs and outputs excluded cannot be bigger than 5% of the mass and energy used, as well as emissions to the environment, per module. The construction of plants, production of machines and transportation systems, (i.e. any infrastructure) are excluded since the related flows are supposed to be negligible compared to the production of the product when compared to the system’s lifetime level. However, we note that some generic datasets used in the LCA model may include capital goods and infrastructure within their system boundaries. Flows related to human activities such as employee transport are also excluded.
ALLOCATIONS	The allocation criteria are based on the mass flow of products and co-products – i.e. mass allocation between the different product ranges produced at Saint-Gobain Weber - Telford. Where raw materials and energy usage cannot be directly attributed to individual products the total quantity used in the factory was divided by the total mass of products produced to achieve materials and energy per kilogram of product. The polluter pays and modularity principles have been followed. The impact arising from the treatment of waste generated within the system boundaries is allocated to the product until waste reaches the end-of-waste state.
GEOGRAPHICAL COVERAGE AND TIME PERIOD	Scope: UK (product, use and disposal) Data is collected from one production site, Telford, UK by Saint-Gobain Weber. Data collected for the year: Jan 2023 – Dec 2023 (plant data)
BACKGROUND DATA SOURCE	Sphera v2023.1 [13] and ecoinvent v.3.9.1 (cut-off approach) [14]
SOFTWARE	LCA for Experts v10 [15]
LCA METHODOLOGY	In addition to EN 15804:2019+A2 and PCR 2019:14 v1.3.4, the study was carried out in accordance with ISO 14040:2006 [16], ISO 14044:2006 [17], and GPI for the International EPD® system [18]. Note: EN 15804 reference package based on EF 3.1 has been used [19].

According to EN 15804:2012+A2:2019, EPDs of construction products may not be comparable if they do not comply with this standard. According to ISO 21930:2017, EPDs might not be comparable if they are from different programmes.

LCA Scope

System boundaries (X=included. MND=module not declared)
Specific data used and variations are based on the GWP-GHG indicator

	PRODUCT STAGE			CONSTRUC-TION STAGE		USE STAGE						END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
	Raw material supply	Transport	Manufacturing	Transport	Construction-Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-recovery
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	MND**						X	X	X	X	X
Geography	EU		GB	GB													

Specific data used*	14.29%*
Variation products	0%***
Variation sites	0%

*Share of specific data that is specified according to PCR 2019:14. We gathered site-specific data on the generation of electricity provided by contracted suppliers (using Guarantee of Origin), transportation data on distances, means of transportation, load factor, fuel/other energy consumption at the site. The value in the table is calculated on the share of impact deriving from LCI data from databases on transportation and energy ware that are combined with actual transportation and energy parameters.
**Modules not declared as per c-PCR-017.
***This is the maximum GWP-GHG difference between the different products and/or the same products produced at various manufacturing sites. Where there is only one site the default value of 0% is presented.

Life Cycle Stages

A1-A3, Product Stage

Description of the stage:
Modules A1-A3 sit within the product stage of a building's life cycle, where raw and secondary materials are extracted and processed (A1) before being transported (A2) to the manufacturing facility for the fabrication of building products (A3). Here we detail A1-A3 for the weberpral E products produced at Weber Telford. Information on the supply of materials and manufacturing of the product(s) were primary data from Saint-Gobain Weber. Secondary data from Sphera (2023.1) and ecoinvent (v3.9.1, cut-off)

databases were used to obtain LCIs for input materials and the processing of waste materials. Electricity used at the Saint-Gobain manufacturing site was modelled based on the power mix purchased with the guarantee of origin (GO) mix from the UK market.

The aggregation of the modules A1, A2 and A3 is a possibility considered by the EN 15804 standard. This rule is applied in this EPD.

A1, Raw materials supply

This stage considers the extraction and processing of all raw materials and energy that occurs upstream of the studied manufacturing process. The raw material supply covers the sourcing and production of all binder components and additives (e.g. sand, cement, rheology agents and others).

The use of electricity, fuels and auxiliary materials in the production is taken into account too. The environmental profile of these energy carriers is modelled for local conditions.

A2, Transport to the manufacturer

The raw materials are transported to the manufacturing site in Telford. In this case, the modelling includes road transportation (average values) of each raw material.

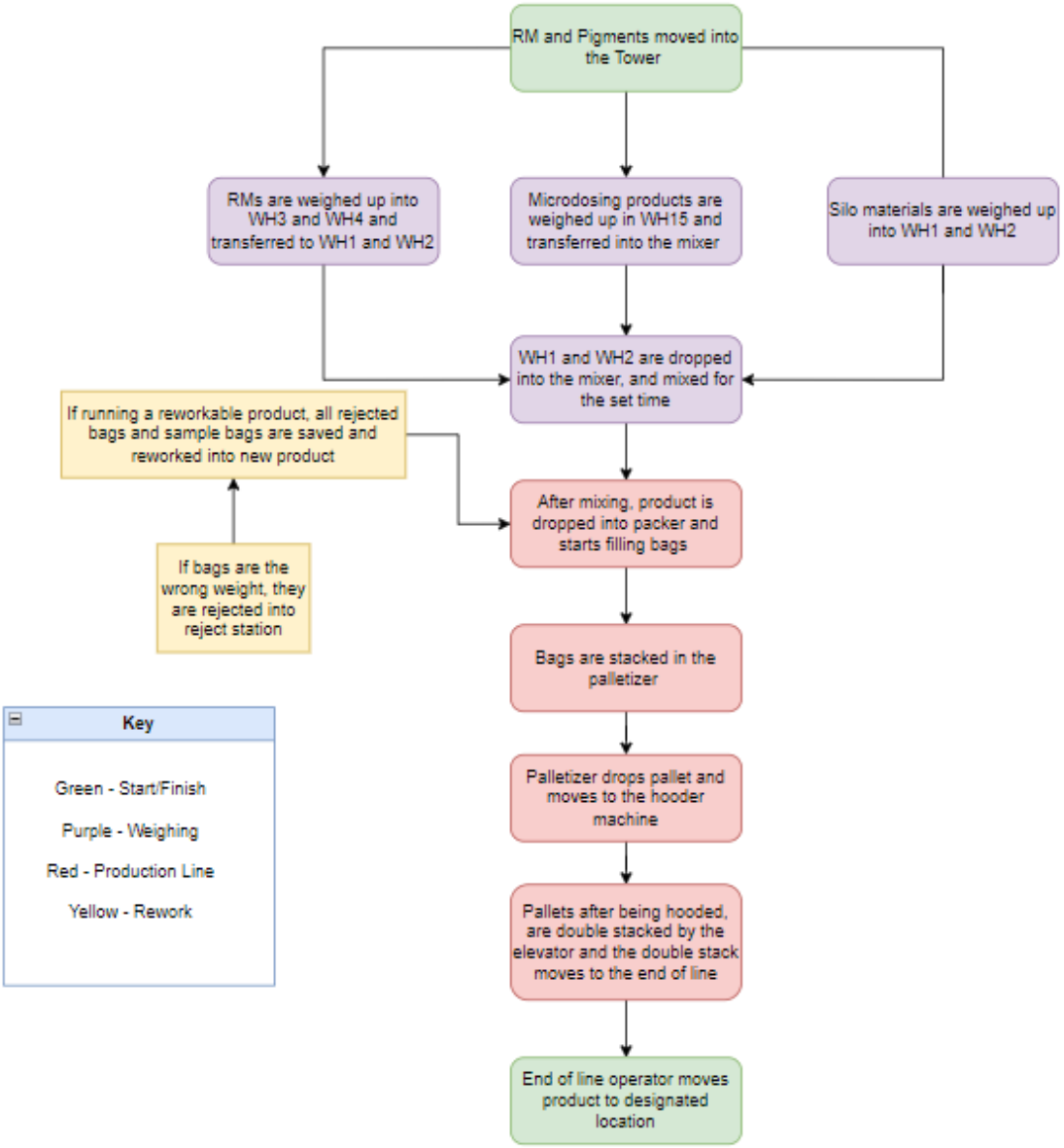
A3, Manufacturing

See System Diagram for a complete breakdown of the manufacturing process.

In A3, other processes modelled include:

- The processing of waste arising from the manufacturing process. How manufacturing waste is processed was based on waste reports from waste contractors, however, where processes are unavailable from Sphera and ecoinvent databases, the worst-case process was used (landfill and incineration).
- The combustion of refinery products, such as diesel and gasoline, is related to the production process.
- Packaging-related flows in the production process and all upstream packaging are included in the manufacturing module, i.e. wooden pallets, paper sacks and LDPE film.
    - In addition to the production of packaging material, the supply and transport of packaging material are also considered in the LCA model. They are reported and allocated to the module where the packaging is applied. Data on packaging waste created during this step are then generated.

Manufacturing process flow diagram



Manufacturing in detail

Weber's Telford manufacturing site produces a range of products, here we focus only on the production of weberpral E. The flow diagram above depicts the product's manufacturing processes in what industry calls a "dry" plant. This means only dry raw materials are used to make products. The raw materials are firstly weighed separately before being discharged into a mixer. Once mixed with the right proportions, they are packaged for distribution. Annual quantities of materials and energy consumed and waste produced due to producing the annual amount of product was collated to calculate materials used per 1 kg.

A4-A5, Construction Process Stage

A4, Transport to the building site:

Distribution distances of products were obtained by mapping the transport distances from the Telford manufacturing site to the client. The average distance was then taken along with the typical mode and load of transport to form the transport scenario. All clients were included in the calculation from the year 2023, no assumptions or cut-offs were made to find the average distribution distance. Additionally, it's assumed that no product is lost, broken, or wasted during transportation due to the efficiency of our courier and our packing process.

PARAMETER	VALUE
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long-distance truck, boat, etc.	Long-distance truck: 28t payload capacity Euro 0 – 6 mix Fuel type: Diesel
Distance	163 km
Average Load Weight	13 tonnes
Average Utilisation	46%

A5, Installation in the building:

weberpral E chalk is spray applied by using a render pump and can be applied up to 25mm thick in two passes. Manual application is also possible. There must be a good mechanical key between the substrate and the render. In cases where substrates such as smooth concrete is being used, weberend aid must be used. There is water usage for mixing the weberpral E chalk, this is 0.22L/DU. Only the water usage is factored in for installing the product. It is assumed in the study that 5% of the product is lost during installation due to residues in packaging and mixing containers.

For the disposal of packaging and waste products, as no data has been collected on where customers dispose of their waste, the default settings for transport processes were used i.e. 100 km distance with 85% utilisation of truck. The degradation of the packaging's biogenic carbon content in a solid waste disposal site, i.e. landfill, is declared as GWP biogenic and has been calculated without a time limit. Any remaining biogenic carbon is treated as an emission of biogenic CO_2 from the Technosphere to nature.

PARAMETER	VALUE (expressed per DU)
Secondary materials for installation	None
Water use	0.22 L
Other resource use	None
Quantitative description of energy type and consumption during the installation process	None
Wastage of materials	5% losses during installation
Output materials	**Waste to landfill:** Paper + PE bag: 0.004 kg Polyethylene film: 0.001 kg Wooden pallet: 0.025 kg HDPE Sheet: 0.00015 kg Stretch Release Wrap: 0.00006 kg weberpral E product: 0.05 kg
Direct emissions to ambient air, soil and water	None

B1-B7, Use Stage

The use stage, related to the building fabric includes:

B1: Use (or application of the installed product)
This model represents any emissions to the environment of the installed product. Emissions to the environment are not attributable to the mortar adhesive. Note: Potential carbon uptake due to the potential carbonation of free calcium oxide within the installed product was excluded from the study.

B2: **Maintenance; B3: Repair; B4: Replacement; B5: Refurbishment**

As specified by c-PCR-017, life cycle modules B2-B5 shall not be included in EPDs for technical chemical products in the building and construction industry.

B6: Operational Energy Use; B7: Operational Water Use

As specified by c-PCR-017, life cycle modules B6-B7 are not relevant for the products covered by the PCR.

C1-C4, End of Life Stage

Description of the stage
The end-of-life scenario for the product range was developed based on Saint-Gobain's own knowledge and confirmation of customers for the deconstruction and demolition of the product from the building (C1). The worst-case scenario was used for the final disposal of the product, which is landfill.

C1, Deconstruction, demolition
The deconstruction and/or dismantling process of the product range is assumed to be deconstructed as part of the entire building. These processes mainly use energy for mechanical operations. In our case, a small amount of energy is considered 0.0437 MJ/kg.

C2, Transport to waste processing
As there is no data for the transport of waste after its use phase, the default distance of 100 km of an average truck used at 85% capacity was assumed.

C3, Waste processing for reuse, recovery and/or recycling
No waste processing for reuse, recovery and recycling was assumed, hence no environmental loads are attributed to this stage.

C4, Disposal
The worst-case scenario where 100% landfill of the product was assumed.

PARAMETER	VALUE/DESCRIPTION
Collection process specified by type	100% collected with mixed construction and demolition waste.
Recovery system specified by type	0% of Waste
Disposal specified by type	100% to municipal landfill
Assumptions for scenario development (e.g. transportation)	Waste is transported 100 km by truck from deconstruction/demolition sites to landfill.

D, Reuse/recovery/recycling potential

No secondary materials were used to manufacture this product and 100**%** of the product is landfilled at its EoL. There is no reuse, recovery, or recycling of this product. Hence, no recycling burdens or benefits are reported in Module D.

LCA Results

As specified in EN 15804:2012+A2:2019 and the PCR 2019:14 v1.3.4, the environmental impacts are declared and reported using the baseline characterisation factors from EC-JRC. Specific data has been supplied by the plant, and generic data come from Sphera and ecoinvent databases.

All emissions to air, water, and soil, and all materials and energy used have been included.

The estimated impact results are only relative statements which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins or risks.

It is discouraged to use the results of Modules A1-A3 without considering the results of other modules, particularly, Module C.

All figures refer to a declared unit (DU) of **1 kg of weberpral E chalk, as applied**.

The following results correspond to a product range manufactured in a single plant: Telford.

MND = Module Not Declared

Environmental Impacts

DU: 1 kg of weberpral E Chalk, as applied

Environmental indicators	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Climate Change (total) [kg CO_2 eq.]	1.41E-01	1.45E-02	9.08E-02	0			MND				4.02E-03	6.25E-03	0	1.42E-02	0
Climate Change (fossil) [kg CO_2 eq.]	1.54E-01	1.46E-02	1.04E-02	0			MND				4.02E-03	6.29E-03	0	1.55E-02	0
Climate Change (biogenic) [kg CO_2 eq.]	-1.26E-02	-2.17E-04	8.04E-02	0			MND				4.11E-06	-9.27E-05	0	-1.31E-03	0
Climate Change (land use change) [kg CO_2 eq.]	1.56E-04	1.36E-04	2.27E-05	0			MND				7.66E-08	5.82E-05	0	4.53E-05	0
Ozone Depletion [kg CFC-11 eq.]	2.46E-09	1.28E-15	2.76E-10	0			MND				3.10E-16	8.18E-16	0	5.83E-17	0
Acidification Terrestrial and Freshwater [Mole of H+ eq.]	3.84E-04	9.76E-05	3.81E-05	0			MND				6.34E-06	3.77E-05	0	1.13E-04	0
Eutrophication Freshwater [kg P eq.]	8.59E-06	5.34E-08	5.61E-07	0			MND				7.78E-10	2.30E-08	0	2.70E-08	0
Eutrophication Marine [kg N eq.]	1.27E-04	4.81E-05	3.47E-05	0			MND				2.19E-06	1.84E-05	0	2.90E-05	0
Eutrophication Terrestrial [Mole of N eq.]	1.37E-03	5.33E-04	1.46E-04	0			MND				2.42E-05	2.04E-04	0	3.19E-04	0
Photochemical Ozone Formation - Human Health [kg NMVOC eq.]	3.58E-04	9.03E-05	3.86E-05	0			MND				6.63E-06	3.48E-05	0	8.80E-05	0
Resource Use, Mineral and Metals [kg Sb eq.][1]	1.50E-07	9.51E-10	9.45E-09	0			MND				4.07E-11	4.17E-10	0	1.42E-09	0
Resource Use, Energy Carriers [MJ][1]	1.19E+00	1.99E-01	1.01E-01	0			MND				5.35E-02	8.56E-02	0	2.06E-01	0
Water Deprivation Potential [m^3 world equiv.][1]	1.82E-02	1.69E-04	1.15E-02	0			MND				1.03E-05	7.60E-05	0	1.65E-03	0

[1] The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Resources Use

DU: 1 kg of weberpral E chalk, as applied	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				D REUSE, RECOVERY, RECYCLING
Resources Use indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Use of renewable primary energy (PERE) [MJ]	4.77E-01	1.41E-02	2.69E-02	0			MND				2.36E-04	6.23E-03	0	2.70E-02	0
Primary energy resources used as raw materials (PERM) [MJ]**	6.88E-01	0	-6.81E-01	0			MND				0	0	0	-7.36E-03	0
Total use of renewable primary energy resources (PERT) [MJ]*	1.17E+00	1.41E-02	-6.54E-01	0			MND				2.36E-04	6.23E-03	0	1.96E-02	0
Use of non-renewable primary energy (PENRE) [MJ]	1.19E+00	2.00E-01	1.01E-01	0			MND				5.37E-02	8.60E-02	0	2.07E-01	0
Non-renewable primary energy resources used as raw materials (PENRM) [MJ]**	1.15E-01	0	-7.02E-03	0			MND				0	0	0	-1.08E-01	0
Total use of non-renewable primary energy resources (PENRT) [MJ]*	1.31E+00	2.00E-01	9.40E-02	0			MND				5.37E-02	8.60E-02	0	9.90E-02	0
Input of secondary material (SM) [kg]	4.33E-04	0	2.16E-05	0			MND				0	0	0	0	0
Use of renewable secondary fuels (RSF) [MJ]	0	0	0	0			MND				0	0	0	0	0
Use of non-renewable secondary fuels (NRSF) [MJ]	0	0	0	0			MND				0	0	0	0	0
Use of net fresh water (FW) [m3]	5.35E-04	1.55E-05	2.75E-04	0			MND				3.84E-07	6.83E-06	0	5.21E-05	0

* Please note PERT and PENRT may be the sum of the use of [renewable/non-renewable] primary energy and [primary/non-renewable primary] energy resources used as raw materials as the worst-case product has been used for each individual indicator. ** Option A of PCR v1.3.4 has been used to calculate the primary energy use indicators.

Waste Category & Output Flows

DU: 1 kg of weberpral E chalk, as applied	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				D REUSE, RECOVERY, RECYCLING
Waste Category & Output Indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational	B7 Operational water	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Hazardous waste disposed (HWD) [kg]	3.01E-06	7.39E-13	1.70E-07	0			MND				1.55E-13	2.66E-13	0	3.15E-09	0
Non-hazardous waste disposed (NHWD) [kg]	1.62E-02	2.88E-05	1.07E-01	0			MND				1.11E-05	1.31E-05	0	1.04E+00	0
Radioactive waste disposed (RWD) [kg]	3.05E-05	2.58E-07	1.76E-06	0			MND				6.20E-08	1.61E-07	0	2.35E-06	0
Components for re-use (CRU) [kg]	0	0	0	0			MND				0	0	0	0	0
Materials for Recycling (MFR) [kg]	9.97E-03	0	4.98E-04	0			MND				0	0	0	0	0
Material for Energy Recovery (MER) [kg]	0	0	0	0			MND				0	0	0	0	0
Exported electrical energy (EEE) [MJ]	4.45E-04	0	2.23E-05	0			MND				0	0	0	0	0
Exported thermal energy (EET) [MJ]	1.02E-03	0	5.08E-05	0			MND				0	0	0	0	0

Optional Indicators

DU: 1 kg of weberpral E chalk, as applied	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
Environmental indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Respiratory inorganics [Disease incidences]	1.00E-08	5.81E-10	7.08E-10	0	MND						3.55E-11	2.25E-10	0	1.40E-09	0
Ionising radiation - human health [kBq U235 eq.][2]	7.52E-03	3.72E-05	4.55E-04	0	MND						8.76E-06	2.40E-05	0	2.42E-04	0
Ecotoxicity freshwater [CTUe][3]	5.66E-01	1.40E-01	6.67E-02	0	MND						3.79E-02	6.13E-02	0	1.18E-01	0
Cancer human health effects [CTUh][3]	5.00E-11	2.84E-12	4.07E-12	0	MND						9.18E-13	1.25E-12	0	1.75E-11	0
Non-cancer human health effects [CTUh][3]	1.51E-09	1.25E-10	2.05E-10	0	MND						2.20E-11	5.54E-11	0	1.85E-09	0
Land use [Pt]	1.07E+00	8.31E-02	9.18E-02	0	MND						1.78E-04	3.58E-02	0	4.30E-02	0

[2] The ionising radiation category deals mainly with the eventual impact of low-dose ionising radiation on the human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure, or radioactive waste disposal in underground facilities. Potential ionising radiation from the soil, radon and some construction materials is also not measured by this indicator.

[3] The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

Additional voluntary indicators from EN 15804 (according to ISO 21930:2017)h

DU: 1 kg of weberpral E chalk, as applied	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
Environmental indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Climate Change [kg CO_2 eq.][4]	1.54E-01	1.47E-02	1.04E-02	0	MND						4.02E-03	6.35E-03	0	1.55E-02	0

[4] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Information on Biogenic Carbon Content

		PRODUCT STAGE
Biogenic Carbon Content in kg C		**A1 / A2 / A3**
	Biogenic carbon content in product [kg]	2.00E-04kg C eq.
	Biogenic carbon content in packaging [kg]	1.85E-02kg C eq.

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

The product contains a low amount of biogenic carbon content due to certain additives used in its formulation. Packaging has some biogenic carbon content; this is due to wood and wood-derived materials used for pallets and packaging bags.

Additional Information:

Electricity Information

TYPE OF INFORMATION	DESCRIPTION
Electricity Purchaser	Saint-Gobain Construction Product UK Limited (incl. Saint-Gobain Weber)
Electricity Provider	Smartest Energy Ltd
Electricity Mix	Wind – 58.20% Solar PV – 14.61% Hydro – 9.53% Biogas – 8.60% Waste to Energy – 4.98% Biomass – 4.08%
Reference Year	2022-2023
Type of Dataset	Sphera Database 2023.1, all datasets reference 2023 emissions Wind - "GB: Electricity from wind power Sphera" Solar PV - "GB: Electricity from photovoltaic Sphera" Hydro - "GB: Electricity from hydro power Sphera" Biogas – "GB: Electricity from biogas Sphera" Waste to Energy – "GB: Electricity from waste Sphera" Biomass – "GB: Electricity from biomass (solid) Sphera"
CO_2 Emission kg CO_2 eq. / kWh	Certificate issue = 0 $kgCO_2$/kWh Modelled impact = 0.079 $kgCO_2$/kWh

Data Quality

Inventory data quality is judged by geographical, temporal, and technological representativeness. To cover these requirements and to ensure reliable results, first-hand industry data crossed with LCA background datasets were used. The data were collected from internal records and reporting documents from Saint-Gobain Weber. After evaluating the inventory, according to the defined ranking in the LCA report, the assessment reflects good inventory data quality.

Revision dates and reason for change

Original Issue (Revision 1) : 2024-10-18

Revision 2 : 2024-11-18

This EPD revision was developed as a result of correcting the input of electricity per kg product. The core environmental indicators results, and most other indicators exhibited negligible changes (< +0.6%) however, PERE, PERT and Ecotoxicity results changed by +15.3%, +6.8%, and +10.4% respectively.

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