ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Webertec grout P plus

Version 1
Date of publication: 2025/06/20
Validity: 5 years
Valid until: 2030/06/19
Scope of the EPD®: Qatar

Programme: The International EPD® System
www.environdec.com
Programme operator: EPD International AB.
Registration number: EPD-IES-0024467

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com.

Production plant: Weber-Sodamco, Qatar

General information

Company information

Manufacturer: Weber-Sodamco Qatar
Production plant: Epsilone, Doha Qatar new industrial area street 2 building 224
Management system-related certifications: N/A

At weber, we believe that what matters most in the construction industry is to care about people and their environment. weber is a world leader in industrial mortars with expertise and knowledge throughout the world. weber is made up of 10,000 people in 62 countries supported by almost 200 production units with an annual turnover over €2 billion. weber's services and solutions aim to help customers save time, feel confident and comfortable, be successful in their work and grow their business.

Our brand promises:

- **Well-being:** We care for the safety and benefit of all. Making lives easier, more convenient and more comfortable.
- **Empathy:** We care about people. Listening to what matters to people and taking into account theirs needs. Helping everyone to grow. Responding to the multiplicity of challenges in today's world and adapting to the diversity of the lives that populate it.
- **Long-lasting:** We care about today. But also, for the future. Taking responsibility to lead the change and build a tomorrow that is in harmony with its environment.

Our commitments:
Develop sustainable and comfortable solutions that guarantee the wellbeing of both individuals and society as a whole, these are the fundamentals of the Saint-Gobain brand promise. They are also the basis of the Group's Corporate Social Responsibility (CSR), through commitments made to our teams, customers and local communities.

UN CPC CODE: 37510 Non-refractory mortars and concretes
Owner of the declaration: Weber Sodamco Qatar
Product name and manufacturer represented: This EPD describes the environmental impact of Webertec grout P plus.
EPD® prepared by: Nahla Neeme (Nahla.neeme@saint-gobain.com) and Yves Coquelet (Yves.coquelet@saint-gobain.com)
Contact: Nahla Neeme (Nahla.neeme@saint-gobain.com)
Geographical scope of the EPD®: Qatar
EPD® registration number: EPD-IES-0024467
Declaration issued: 2025/06/20, valid until: 2030/06/19

Programme information

PROGRAMME:	The International EPD® System
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Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR)

CEN standard EN 15804 serves as the core Product Category Rules (PCR)

Product category rules (PCR): PCR 2019:14 Construction products, version 1.3.3

Prepared by: IVL Swedish Environmental Research Institute, EPD International Secretariat

PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com for a list of members.

Review chair: -

Life cycle assessment (LCA)

LCA accountability: Yves COQUELET, Saint-Gobain

Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006:

☒ EPD verification by individual verifier

Demonstration of verification: An independent verification of the declaration was made, according to EN ISO 14025:2010. This verification was external and conducted by a third party, based on the PCR mentioned above.

Third party verifier: Marcel GOMEZ, Marcel Gómez Consultoría Ambiental

Telephone: 0034 630 64 35 93

email: info@marcelgomez.com

Approved by: The International EPD© System

Procedure for follow-up of data during EPD validity involves third part verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility of the EPD.

EPDs within the same product category but registered in different EPD programs, 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 characterization 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 information

Product description and description of use

This Environmental Product Declaration (EPD®) describes the environmental impacts of 1 kg of Webertec grout P plus.

1 kg of dry mortar installed and, with an estimated useful life of 50 years.

Webertec grout P plus is a ready to use non shrink grout made of sand, special cement and additives to achieve unique characteristics with high strength and no bleed.

This EPD applies for one specific product manufactured by Sodamco-Weber Qatar, Epsilone.

All technical characteristics and properties for any product could be find on the website.

Technical data/physical characteristics:

Technical data/physical characteristics		Applicable standards
Appearence	Grey powder	Fully comply to ASTM C1107 ASTM C109 ASTM C 827 ASTM C 230 ASTM C 1090 BS EN 196-1
Wet density	2.3 ± 0.1	
Grain size	0 to 4 mm	
Mixing water	12% - 15%	
Pot life	20 mins at standard lab temperature	
Flexural strength (BS EN 196-1)	> 14 MPa @ 28 days	
Early height change	0.5-3%	
Flowability at 21°C	Flowable @ 45 min	

Declaration of the main product components and/or materials

PRODUCT	WEIGHT (KG)	POST-CONSUMER RECYCLED MATERIAL, (WEIGHT %)	BIOGENIC MATERIAL WEIGHT (%)
Webertec grout P plus	1	0%	0%
PRODUCT COMPONENTS	**WEIGHT (%)**	**POST-CONSUMER RECYCLED MATERIAL, (WEIGHT %)**	**BIOGENIC MATERIAL WEIGHT (%)**
Mineral content	30 – 40%	0%	0%
Powder Additives	0.5 – 0.1%	0%	0%
Binder	60 – 70%	0%	0%
Sum	100%	0%	0%
PACKAGING MATERIALS	**WEIGHT (kg)**	**WEIGHT (%) Vs the product**	**BIOGENIC MATERIAL WEIGHT (%)**
Composite bag	0.001 – 0.005	0.1 – 0.5%	37%
Low-density polyethylene (LDPE) film	0.0001 – 0.0005	0.01 – 0.05%	0%
Wooden Pallet	0.005 – 0.01	0.5 – 1%	41%
Sum	0.005 – 0.01	0.5 – 1%	5.23E-03 kgC

During the life cycle of the product any hazardous substance listed in the “Candidate List of Substances of Very High Concern (SVHC) 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 of the legality of the product.

LCA calculation information

TYPE OF EPD	Cradle to gate with options, module C1-C4, module D and optional modules A4-A5 and B1-B7
DELARED UNIT	1 kg of dry mortar installed and, with an estimated useful life of 50 years.
SYSTEM BOUNDARIES	Mandatory Stages= A1-A3, C1-C4 and D; Optional stages= A4-A5 and B1-B7
REFERENCE SERVICE LIFE (RSL)	50 years
CUT-OFF RULES	LCI data shall according to EN 15804 include a minimum of 95% of total inflows (mass and energy) per module. In addition, if less than 100% of the inflows are accounted for, proxy data or extrapolation should be used to achieve 100% completeness. Transportation in-site is excluded. The construction of plants, production of machines and transportation systems are excluded. Research and development activities. Long-term emissions.
ALLOCATIONS	Allocation criteria are based on mass. The polluter pays and modularity principles have been followed.
GEOGRAPHICAL COVERAGE AND TIME PERIOD	Scope: Qatar Data is collected from 1 production Weber-Sodamco, Qatar Data collected for the year 2023 Cradle to gate + A4-A5 +B1-B7+ C +D
BACKGROUND DATA SOURCE	The databases Sphera 2020 and Ecoinvent v.3.9
SOFTWARE	GaBi 10.6.2.9

According to EN 15804:2012+A2:2019/AC:2021. EPDs of construction products may not be comparable if they do not comply with this standard. EPDs might not be comparable if they are from different programs.

LCA scope

System boundaries (X=included. MND=module not declared)

	PRODUCT STAGE			CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDAR
	Raw material supply	Transport to the manufacturer	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	X	X	X	X	X	X	X	X	X	X	X
Geography	Qatar			Qatar													

Specific data used	12% GWP- GHG
Variation products	No variation
Variation sites	1 site – no variation

Life cycle stages

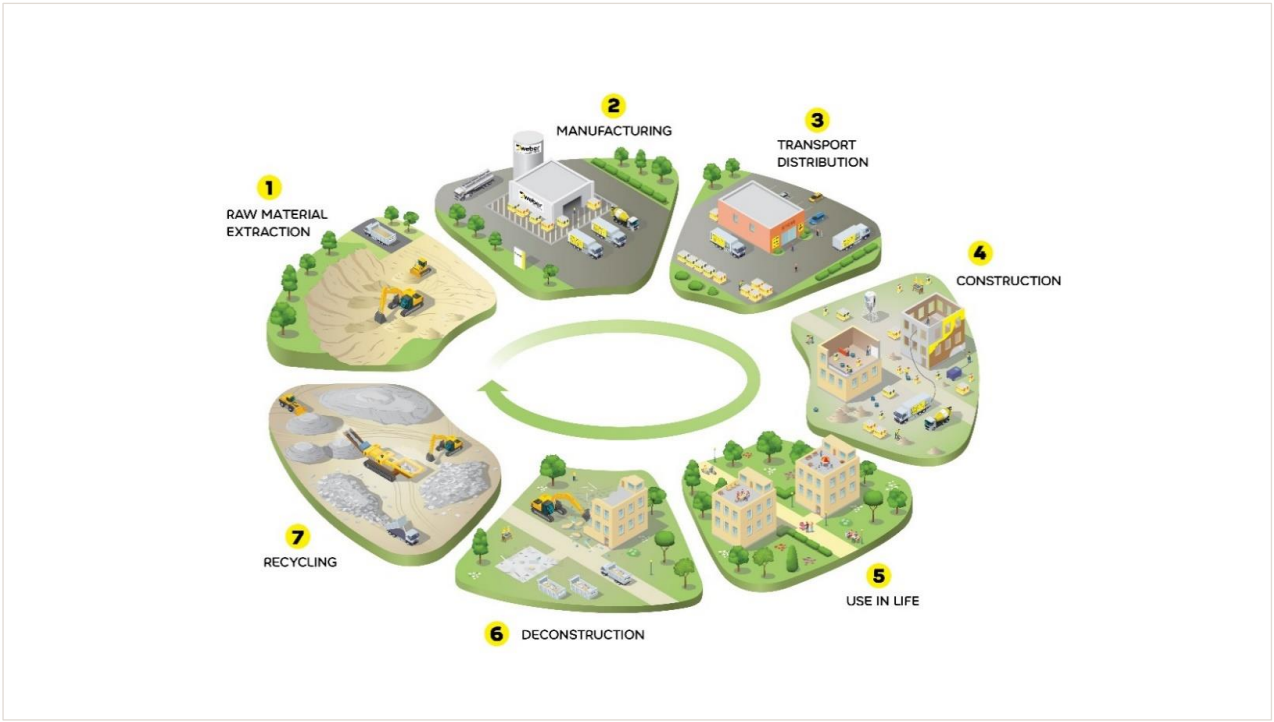


Figure 1: Flow diagram of the Life Cycle

A1-A3, Product stage

Description of the stage:
The product stage of the weber products is subdivided into 3 modules A1, A2 and A3 respectively “Raw material supply”, “transport to the manufacturer” and “manufacturing”.
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.

Description of the scenarios and other additional technical information:
A1, Raw materials supply
This part takes into account the extraction and processing of all raw materials and energy which occurs upstream to the studied manufacturing process.
Specifically, the raw material supply covers sourcing (quarry) and production of all binder components and additives (e.g. sand, cement, rheology agent and others).

A2, Transport to the manufacturer
The raw materials are transported to the manufacturing site. In this case, the modelling includes road and boat transportations (average values) of each raw material.

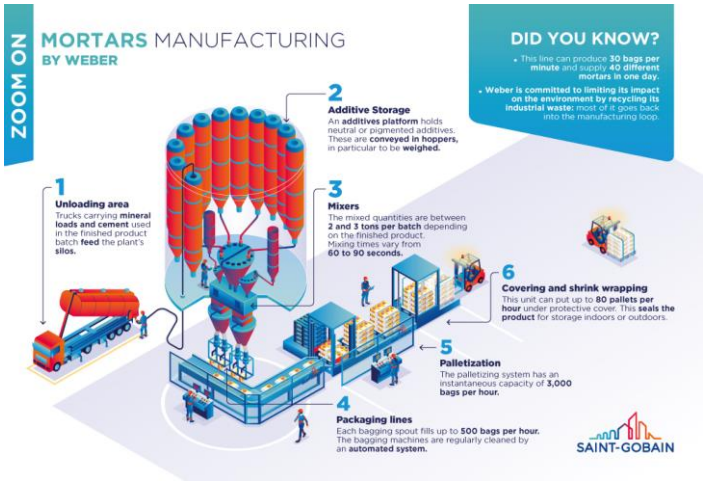
A3, Manufacturing
This module includes manufacturing of products but also besides on-site activities such as grinding, drying, storing, mixing, packing and internal transportation:

- Manufacturing packaging.
- Treatment of waste generated by the manufacturing process.
- Extraction, production and transport and combustion of all energy sources (fuels, natural gas, electricity…) used on site

All the raw materials are received by the site. Each raw material is added to a silo (of varying size depending on the raw material). In a mixer, the right amount of material is taken from the silos to form the right recipe and inserted into and mixed to obtain a homogeneous blend. A hopper is then used to fill the packs by acting as a funnel from the mixers. This process doesn’t require specific consumables and the equipment used during production are washed to be reused. Most of the waste produced is packaging for the various raw materials, which is then incinerated with energy recovery. Residues in silo are also produced and are considered as production losses (scrap) that are landfilled.
Mortar products manufacturing is a complex product system with a range of input materials and variety of the product outputs. Mass based physical allocation was applied to split the environmental burden among the isolation life cycle.

Manufacturing process flow diagram

Basic scheme of a Mortar Production line



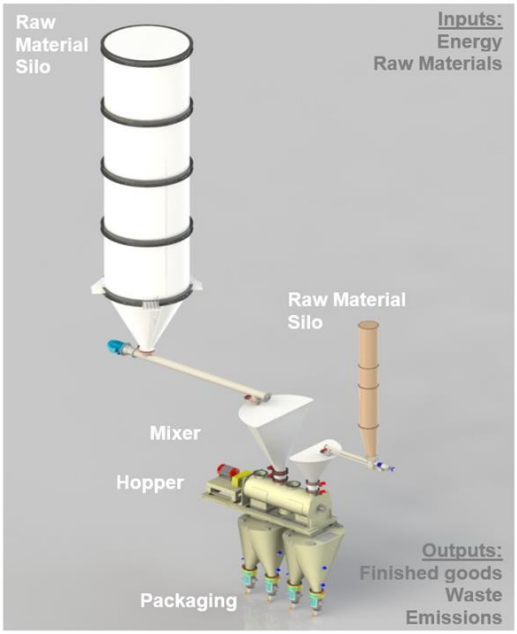


Figure 2: Manufacturing process flow diagram: Basic scheme of a Mortar Production line

A4-A5, Construction process stage

Description of the stage: The construction process is divided into 2 modules: A4. transport to the building site and A5. installation in the building

A4, Transport to the building site:

This module includes transport from the production gate to the building site. Transport is calculated on the basis of a scenario with the parameters described in the following table.

PARAMETER	VALUE
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long-distance truck, boat, etc.	Average truck trailer 27 t payload, diesel consumption 38 liters for 100 km
Distance	30 km
Capacity utilisation (including empty returns)	70% of the capacity in mass 30% of empty returns
Bulk density of transported products	1139 kg / m³
Volume capacity utilisation factor	1 (by default)

A5, Installation in the building

This module includes:

No additional accessory was taken into account for the implementation phase insulation product.
No energy is needed to install the product (manual installation without tool)

PARAMETER	VALUE (expressed per declared unit)
secondary materials for installation (specified by materials)	none
Water use	0.14 L/kg
Other resource use	None
Quantitative description of energy type (regional mix) and consumption during the installation process	0.00085 MJ/kg
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	5% losses during installation
Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling, for energy recovering, disposal (specified by route)	Composite bag (paper - LDPE): 0.078 kg to landfill LDPE Film: 3.94 kg to landfill Wooden pallet: 2.4 g/kg to landfill and 17.6 g/kg to reuse
Direct emissions to ambient air, soil, and water	None

Electricity is used to activate the drill to mix; the amount of electricity used depends on the difficulty to homogenize the mix. Electricity mix used is the same as the one for production (i.e. Qatar market mix) modelled using Sphera database and IEA data.

B1-B7, Use stage (excluding potential savings)

Description of the stage: the use stage is divided into the following modules:

- The use stage is divided into the following modules: Use – B1. Maintenance – B2. Repair – B3.
- Replacement – B4. Refurbishment – B5. Operational energy and water use – B6 and B7
- Once installation is complete, no actions or technical operations are required during the use stages until the end-of-life stage. The product does not require any energy, water or material input to keep it in working order. Furthermore, it is not exposed to the indoor atmosphere of the building, nor is it in contact with the circulating water or the ground.
- The product covered by this EPD does not require any maintenance as it is aimed for pavements regularization. In addition, due to the product durability; maintenance, repair, replacement, or restoration are irrelevant in the specified applications. Declared product performances therefore assume a working life that equals the building's lifetime. For this reason, no environmental loads are attributed to any of the modules between B1 and B5.

C1-C4, End of Life Stage

Description of the stage: Landfill is considered to be the worst scenario.
The end-of-life stage is divided into the following modules:

C1, Deconstruction, demolition
The de-construction and/or dismantling of the product take part of the demolition of the entire building. In our case, a small amount of energy is considered 0.05 MJ/m²

C2, Transport to waste processing
The model use for the transportation is applied.

C3, Waste processing for reuse, recovery and/or recycling
The product is considered to be landfilled without reuse, recovery or recycling. No environmental loads are attributed to this stage.

C4, Disposal
The product is considered to be landfilled.

Description of the scenarios and additional technical information for the End of life:

PARAMETER	VALUE/DESCRIPTION
Collection process specified by type	1 kg collected with mixed construction waste.
Recovery system specified by type	0% of Waste
Disposal specified by type	100% to municipal landfill
Assumptions for scenario development (e.g. transportation)	Average truck trailer with 27t payload, diesel consumption 38L/100km; 100km distance to landfill

D, Reuse/recovery/recycling potential

This module covers the benefits and loads beyond the system boundary generated by valorization of packaging and product. 100% of wastes are landfilled. There is no reuse, nor recovery, nor recycling of this product. Hence, no recycling benefits are reported on stage D.

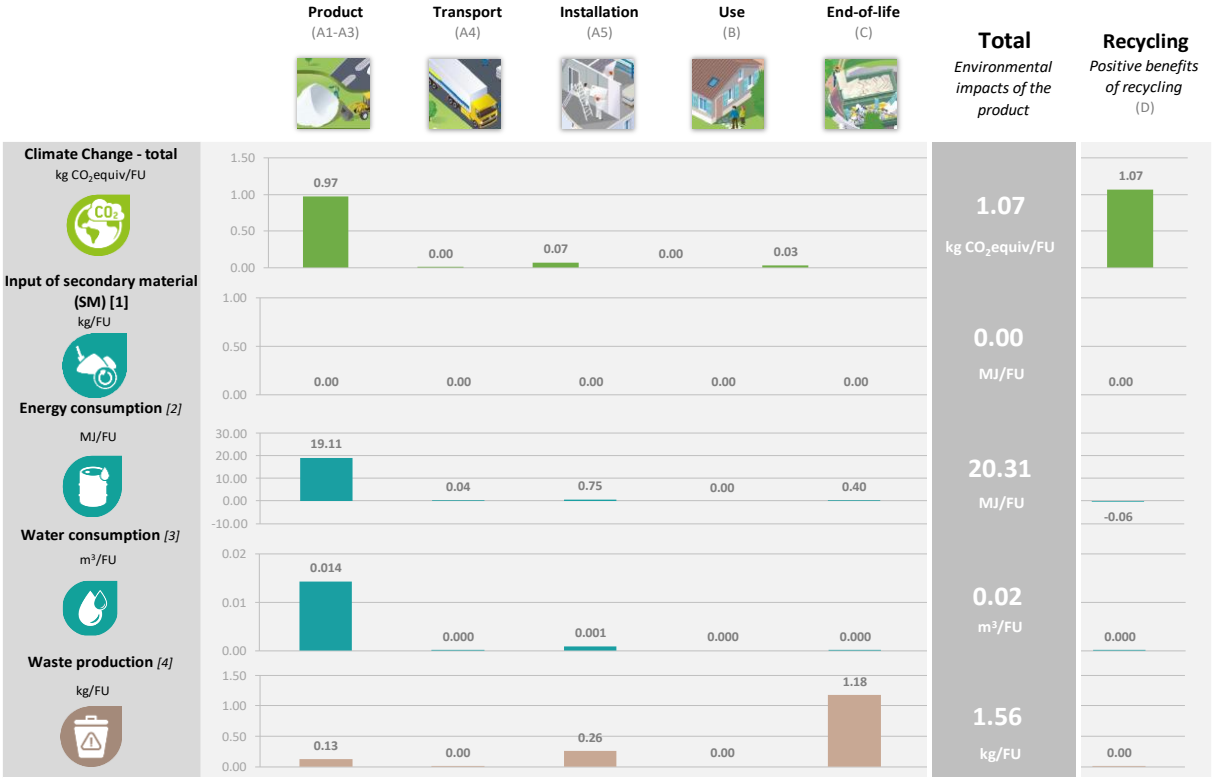
Since the product and packaging are 100% landfilled, it implies no benefits from recycling process.

LCA results

As specified in EN 15804:2012+A2:2019/AC:2021 and also the Product-Category Rules, the environmental impacts are declared and reported using the baseline characterization factors from EC-JRC (reference package EF 3.1).

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

LCA data results are detailed on the following tables, and they refer to a declared unit of 1 kg of Webertec grout P plus , with an expected average service life of 50 years.



[1] This indicator corresponds to the input of secondary materials as defined by 15804+A2
[2] This indicator corresponds to the total use of primary energy.
[3] This indicator corresponds to the use of net fresh water.
[4] This indicator corresponds to the sum of hazardous, non-hazardous and radioactive waste disposed.

Environmental Impacts

Impact 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	C4 Disposal	D Reuse, recovery, recycling
Climate Change, total [kg CO2 eq.]	9.39E-01	2.92E-03	1.06E-01	0	0	0	0	0	0	0	5.21E-03	4.20E-03	0	1.75E-02	6.31E-04
Climate Change, fossil [kg CO2 eq.]	9.71E-01	2.89E-03	7.17E-02	0	0	0	0	0	0	0	5.21E-03	4.15E-03	0	1.74E-02	3.85E-04
Climate Change, biogenic [kg CO2 eq.]	-3.25E-02	7.65E-06	3.44E-02	0	0	0	0	0	0	0	4.52E-06	1.13E-05	0	4.87E-05	2.20E-04
Climate Change, land use and land use change [kg CO2 eq.]	7.06E-04	2.72E-05	4.85E-05	0	0	0	0	0	0	0	9.92E-08	3.89E-05	0	5.48E-05	2.50E-05
Ozone depletion [kg CFC-11 eq.]	4.51E-09	2.57E-16	2.89E-10	0	0	0	0	0	0	0	4.01E-16	5.47E-16	0	4.49E-14	7.70E-12
Acidification [Mole of H+ eq.]	2.83E-03	3.25E-06	1.64E-04	0	0	0	0	0	0	0	8.21E-06	5.35E-06	0	1.25E-04	-3.78E-06
Eutrophication, freshwater [kg P eq.]	1.92E-04	1.07E-08	9.91E-06	0	0	0	0	0	0	0	1.01E-09	1.54E-08	0	3.55E-08	-1.34E-06
Eutrophication, marine [kg N eq.]	6.78E-04	1.10E-06	1.22E-04	0	0	0	0	0	0	0	2.84E-06	1.87E-06	0	3.23E-05	2.44E-06
Eutrophication, terrestrial [Mole of N eq.]	6.90E-03	1.30E-05	4.27E-04	0	0	0	0	0	0	0	3.13E-05	2.19E-05	0	3.56E-04	-1.22E-05
Photochemical ozone formation, human health [kg NMVOC eq.]	2.71E-03	2.81E-06	1.67E-04	0	0	0	0	0	0	0	8.59E-06	4.69E-06	0	9.75E-05	-4.83E-06
Resource use, mineral and metals [kg Sb eq.][1]	1.74E-06	1.91E-10	9.13E-08	0	0	0	0	0	0	0	5.27E-11	2.79E-10	0	8.15E-10	9.49E-10
Resource use, energy carriers [MJ][1]	1.72E+01	3.99E-02	9.32E-01	0	0	0	0	0	0	0	6.94E-02	5.72E-02	0	2.35E-01	2.66E-03
Water use [m³ world equiv.][1]	6.06E-01	3.38E-05	3.93E-02	0	0	0	0	0	0	0	1.34E-05	5.08E-05	0	1.94E-03	5.43E-04

[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

Resources Use indicators	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				D 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
Use of renewable primary energy (PERE) [MJ]	1.57E+00	2.82E-03	8.34E-02	0	0	0	0	0	0	0	3.06E-04	4.16E-03	0	3.83E-02	-6.51E-02
Primary energy resources used as raw materials (PERM) [MJ]	3.38E-01	0	-2.61E-01	0	0	0	0	0	0	0	0	0	0	0	0
Total use of renewable primary energy resources (PERT) [MJ]	1.91E+00	2.82E-03	-1.78E-01	0	0	0	0	0	0	0	3.06E-04	4.16E-03	0	3.83E-02	-6.51E-02
Use of non-renewable primary energy (PENRE) [MJ]	1.04E+01	4.00E-02	5.92E-01	0	0	0	0	0	0	0	6.95E-02	5.74E-02	0	2.35E-01	2.66E-03
Non-renewable primary energy resources used as raw materials (PENRM) [MJ]	6.80E+00	0	3.40E-01	0	0	0	0	0	0	0	0	0	0	0	0
Total use of non-renewable primary energy resources (PENRT) [MJ]	1.72E+01	4.00E-02	9.32E-01	0	0	0	0	0	0	0	6.95E-02	5.74E-02	0	2.35E-01	2.73E-03
Input of secondary material (SM) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of renewable secondary fuels (RSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of non-renewable secondary fuels (NRSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of net fresh water (FW) [m3]	1.43E-02	3.11E-06	9.28E-04	0	0	0	0	0	0	0	4.98E-07	4.56E-06	0	5.93E-05	1.26E-05

Output Flows & Waste Category

Output Flows & Waste Category indicators	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				D REUSE, RECOVERY, RECYCLING
	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]	7.42E-06	1.48E-13	5.83E-07	0	0	0	0	0	0	0	2.00E-13	1.78E-13	0	5.11E-12	1.21E-08
Non-hazardous waste disposed (NHWD) [kg]	1.27E-01	5.76E-06	2.59E-01	0	0	0	0	0	0	0	1.44E-05	8.76E-06	0	1.18E+00	4.21E-05
Radioactive waste disposed (RWD) [kg]	1.40E-04	5.17E-08	7.44E-06	0	0	0	0	0	0	0	8.03E-08	1.08E-07	0	2.68E-06	-2.13E-08
Components for re-use (CRU) [kg]	0	0	1.85E-02	0	0	0	0	0	0	0	0	0	0	0	0
Materials for Recycling (MFR) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Material for Energy Recovery (MER) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exported electrical energy (EEE) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exported thermal energy (EET) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Additional voluntary indicators from EN 15804

		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
	GWP-GHG [kg CO2 eq.]	9.72E-01	2.91E-03	7.17E-02	0	0	0	0	0	0	0	5.21E-03	4.19E-03	0	1.74E-02	4.10E-04

Information on biogenic carbon content

	PRODUCT STAGE
Biogenic Carbon Content in kg C	**A1 / A2 / A3**
Biogenic carbon content in product [kg]	0.00E+00
Biogenic carbon content in packaging [kg]	9.34E-03

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2.

The biogenic carbon content in the product stems from the additives in the product.

The biogenic carbon content in the packaging stems from the composite bag which uses 85% of paper as well as from the wooden pallets.

Optional indicators

		PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
	Optional 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
	Particulate matter [Disease incidences]	2.35E-08	2.14E-11	1.57E-09	0	0	0	0	0	0	0	4.60E-11	3.78E-11	0	1.54E-09	-1.46E-10
	Ionising radiation, human health [kBq U235 eq.]	1.48E-01	7.46E-06	7.52E-03	0	0	0	0	0	0	0	1.14E-05	1.60E-05	0	3.10E-04	-8.20E-05
	Ecotoxicity, freshwater [CTUe]	1.75E+00	2.81E-02	1.47E-01	0	0	0	0	0	0	0	4.91E-02	4.10E-02	0	1.27E-01	9.17E-03
	Human toxicity, cancer [CTUh]	2.26E-10	5.66E-13	1.41E-11	0	0	0	0	0	0	0	1.19E-12	8.32E-13	0	1.97E-11	-1.79E-13
	Human toxicity, non-cancer [CTUh]	8.38E-09	2.50E-11	5.80E-10	0	0	0	0	0	0	0	2.85E-11	3.70E-11	0	2.08E-09	9.65E-13
	Land Use [Pt]	2.65E+00	1.66E-02	2.41E-01	0	0	0	0	0	0	0	2.31E-04	2.39E-02	0	5.70E-02	-3.89E-01

LCA interpretation

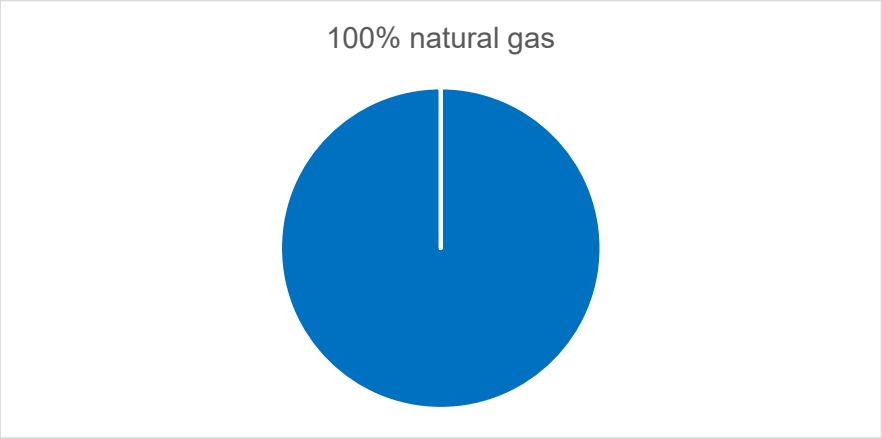
The main environmental impacts of the product life cycle originate from the extraction and processing of raw materials (A1-A3). The production stage is responsible for over 75% of the impact for most of the indicators, mainly linked to the impact of the production of the raw materials. Interestingly, the installation phase utilizes a modest amount of water and energy for the sake of mixing the mortar causing a little impact on this step.
Conversely, roughly 75% of the waste production occurs in the end-of-life phase, considering that a 100% landfilling scenario was adopted.

Additional information:

Electricity information

TYPE OF INFORMATION	DESCRIPTION
Location	Representative of Electricity purchased by Saint-Gobain Qatar
Geographical representativeness description	Split of energy sources in Qatar: -Natural gas 100%
Reference year	2021
Type of data set	Cradle to gate from Gabi database
Source	IEA, Qatar, Total primary energy supply, 2021
Global warming potential (excluding biogenic Carbon)	0,670 kg of CO2 eq /kWh (based on Climate Change (fossil) indicator)

Table 1: Data used for electricity production.



Electricity modules used are the most recent available in Gabi database. The values imply the energy transformation and transport losses (10%). There was no electricity mix available for Qatar, so it was rebuilt by Saint-Gobain central team using IEA data and dataset for production in USA.

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 was collected from internal records and reporting documents from weber Saudi Arabia. After evaluating the inventory, according to the defined ranking in the LCA report, the assessment reflects good inventory data quality.

Differences with older versions of the EPD

This is the 1st EPD for this product.

References

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4. ISO 14 025: environmental labels and declarations – type III Environmental Declarations Principles and procedure (2009)
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7. ISO 14020:2000 Environmental labels and Declarations - General principles
8. EN 15978 Sustainability of construction works - Assessment of environmental performance of buildings - Calculation method.
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