ENVIRONMENTAL PRODUCT DECLARATION

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

webertec BTconsolida35

EPD of multiple sites, based on worst-case results

EPD®

THE INTERNATIONAL EPD® SYSTEM

Registration number
The International EPD® System:
EPD-IES-0005997

Version 1
Date of publication: 2024/12/17
Validity: 5 years
Valid until: 2029/12/16
Scope of the EPD®: Italy

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

ECO PLATFORM EPD VERIFIED

SAINT-GOBAIN

weber SAINT-GOBAIN

Saint-Gobain Italia S.p.A. , weber:
Aquino
Contrada San Marco, 1, 03031 Aquino (FR), Italy
Montiglio
Via della Repubblica, 9, 14026 Montiglio Monferrato (AT), Italy

Programme information

PROGRAMME:	The International EPD® System
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CEN standard EN 15804:2012+A2:2019/AC:2021 as the Core Product Category Rules (PCR)

Product category rules (PCR): PCR 2019:14 Construction Products, version 1.3.2

PCR review was conducted by: The Technical Committee of the International EPD® System

President: Massimo Marino

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

☐ EPD process certification ☒ EPD verification

Third party verifier: Renuables http://renuables.co.uk , Andrew Norton

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Approved by: The International EPD© System

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

EPDs within the same product category but registered in different EPD programmes may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same version number up to the first two digits) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical DU/FU); 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 15804:2012+A2:2019/AC:2021 and ISO 14025:2006.

Product information

Company information

Manufacturer:
SAINT-GOBAIN ITALIA S.P.A
Via Giovanni Bensi 8, 20152 Milano, (Italy)
Tel. (+39) 02 611151/ mail: sg.ppc@legalmail.it / web: https://www.saint-gobain.it/

Production plants:
Aquino: Contrada San Marco, 1, 03031 Aquino (FR), Italy
Montiglio: Via della Repubblica, 9, 14026 Montiglio Monferrato (AT), Italy

Management system - related certifications:
ISO 9001 “Quality management systems”
ISO 14001 “Environmental management systems”
ISO 45001 “Occupational health and safety management systems”
Programme used: EN 15804:2012+A2:2019/AC 2021 Sustainability of construction works – Environmental product declaration - core rules for the product category of construction product and The International EPD® System
PCR identification: PCR 2019:14 version 1.3.2 for Construction products
Prepared by: IVL Swedich Environemental Research Institute, EPD International Secretariat
UN CPC CODE: 37510 Non-refractory mortars and concretes
Owner of the declaration: SAINT-GOBAIN ITALIA S.P.A
Product name and manufacturer represented: This EPD describes the environmental impacts of 1 kg of webertec Btconsolida35 delivered in powder form.
EPD® prepared by:
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The intended use of this EPD is for B2B communication.
Geographical scope of the EPD®: Italy
EPD® registration number: EPD-IES-0005997
Declaration issued: 2024/12/17, valid until: 2029/12/16

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

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

Product description

Product description and description of use

The product observed within the scope of this study is the webertec Btconsolida35.
Concrete restoration for works requiring sprayed cementitious mortar, such as the restoration of tunnels, canals, pools, and tanks.
Structural reinforcement of masonry and thick cementitious layers, including on walls and ceilings. Suitable for use with waterproofing osmotic cements.
It can also be used as a mechanized preparatory bonding coat for thermal plaster or in any situation where a base coat is required.

All technical characteristics and properties for any product could be find on the website: https://www.it.weber/malte-il-ripristino-del-cls-il-consolidamento-e-il-rinforzo-delle-strutture/ripristino-e-consolidamento-strutturale/malte-il-consolidamento/webertec-btconsolida35

The webertec Btconsolida35 is produced in two sites: Aquino and Montiglio.
In this EPD of multiple sites, the results are based on worst-case results by considering the yearly production per site.

Technical data/physical characteristics:

Parameter	Value / Description	Method
Modulus of elasticity	30 GPa	EN 1504-3:2005
Compressive strength	35 N/mm^2	
Flexural strength	8 N/mm^2	
Thermal conductivity	λ = 1,3 W/mK	

Declaration of the main product components and/or materials

Description of the main components and/or materials:

Product components	Weight (kg)	Post-consumer recycled material weight (%)	Biogenic material, weight-% and kg C/kg product
Binders	20 – 40 %	0%	0 %
Mineral inert	60 – 80%	0%	0 %
Other additives	0– 2 %	0%	0,04%
Sum	**100%**	**0%**	**0,04%**
Packaging materials	**Weight (kg)**	**Weight versus the product (%)**	**Weight biogenic carbon, kg C/kg product**
Composite bag (paper - LDPE)	0,00356	0,356 %	0,13 %
Low-density polyethylene (LDPE) film	0,00074	0,074 %	0 %
Wooden pallet	0,00748	0,748 %	0,31 %

At the date of issue of this declaration, there is no “Substance of Very High Concern” (SVHC) in concentration above 0,1% by weight, and neither do their packaging, following the European REACH regulation (Registration, Evaluation, Authorization and Restriction of Chemicals). You can refer to the safety data sheet of the product to verify this information.
The verifier and the program 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 and optional modules (A+B+C+D)
DECLARED UNIT	1 kg of dry powder
SYSTEM BOUNDARIES	Mandatory stages = A1-A3; C1-C4 and D; Optional stages = A4-A5; B1-B7
REFERENCE SERVICE LIFE (RSL)	The Reference Service Life (RSL) of the mortar product is 50 years. This 50-year value is the amount of time that we recommend our products last for without refurbishment and corresponds to standard building design life.
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 the 5% of the whole mass and energy used, as well of the emissions to environment occurred. Flows related to human activities such as employee transport are excluded. The construction of manufacturing plants, production of machines and transportation systems are excluded since the related flows are supposed to be negligible compared to the production of the building product when compared at these systems lifetime level.
ALLOCATIONS	Allocation has been avoided when possible and when not possible a mass allocation has been applied. The polluter pays and the modularity principles as well have been followed.
GEOGRAPHICAL COVERAGE AND TIME PERIOD	Scope: Italy Data is collected from two production sites Aquino and Montiglio located in Italy Data collected for the year 2023
BACKGROUND DATA SOURCE	The databases Sphera 2023.2 and ecoinvent v.3.9.1
SOFTWARE	Sphera LCA for experts (GaBi) 10

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 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	X	X	X	X	X	X	X	X	X	X	X
Geography	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT

Specific data used	>82% GWP- GHG
Variation products	0 %
Variation sites	> 10 %

Life cycle stages

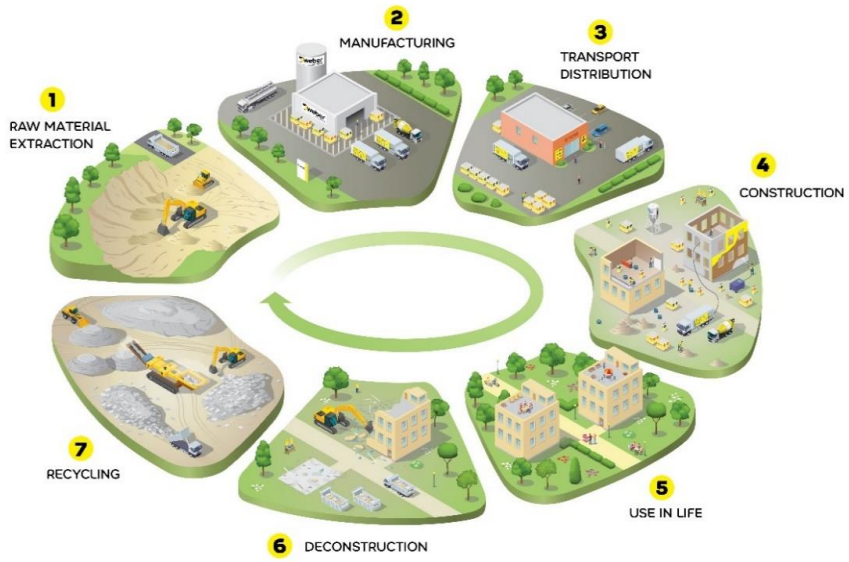


Figure 1.Flow diagram of the Life Cycle

A1-A3. Product stage

The product stage of plaster products is subdivided into 3 modules A1, A2 and A3 respectively “raw material supply”, “transport to manufacturer” and “manufacturing”.

A1. Raw materials supply

This module includes the extraction and transformation of raw materials.

A2. Transport to the manufacturer

This module includes the transportation of raw materials and packaging to the manufacturing site. The modelling includes road, boat and/or train transportations.

A3. Manufacturing

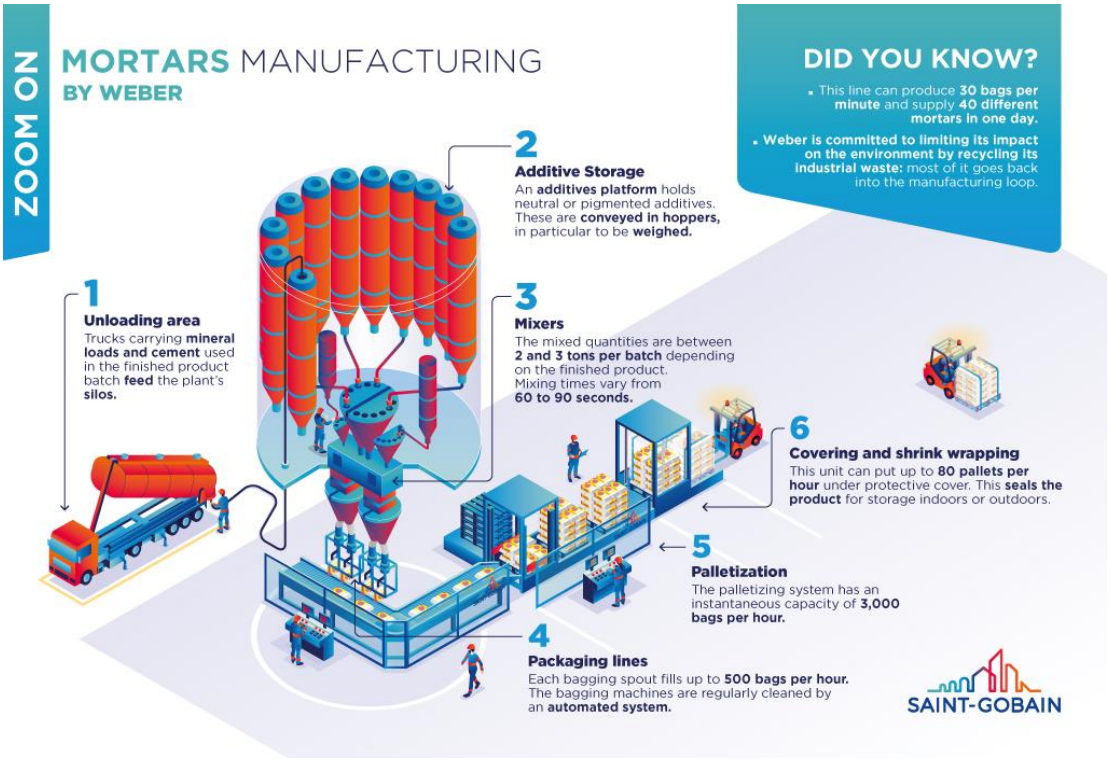
This module includes the manufacture of products and the manufacture of packaging. The production of packaging material is considered at this stage. The processing of any waste arising from this stage is also included.

The manufacturing activities include grinding, storing, mixing, packing and internal transportation. Packaging-related flows in the production process and all up-stream packaging are included in the manufacturing module, i.e., wooden pallets, bags, and LDPE film.

Manufacturing process flow diagram

System diagram:

Basic scheme of a Mortar Production line



A4-A5. Construction process 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 based on 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.	Avarage truck trailer 14 t payload, diesel consumption 38 liters for 100 km
Distance	143 km
Capacity utilisation (including empty returns)	36,3% for lorries 30% of empty returns
Bulk density of transported products*	1553 kg / m³
Volume capacity utilisation factor	1 (by default)

A5. Installation in the building:

This module includes the parameters for installing the product at the building site. All installation materials and their waste processing are included.

In this module:

Was taken into consideration:

- Energy used in the equipment to prepare the product.

Not taken into consideration:

- Additional accessories for installation
- Energy used to install the product (applied manually).

PARAMETER	VALUE
secondary materials for installation (specified by materials)	none
Water use	0,19 l / kg of product
Other resource use	None
Quantitative description of energy type (regional mix) and consumption during the installation process	0,00396 MJ/kg of dry mortar
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	Product waste: 0,05 mortar kg (landfill) Packaging waste: Composite bag (paper - LDPE): 0,00356 kg to landfill Low-density polyethylene (LDPE) film: 0,00074 kg to landfill Wooden pallet: 0,00094 kg to landfill Wooden pallet: 0,00655 kg is reused
Direct emissions to ambient air, soil, and water	None

B1-B7. Use stage (excluding potential savings)

The use stage is divided into the following modules:

- B1: Use
- B2: Maintenance
- B3: Repair
- B4: Replacement
- B5: Refurbishment
- B6: Operational energy use
- B7: Operational water use

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. The product covered by this EPD does not require any maintenance, in addition, due to the product durability, 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 B7, because no carbonation is considered as the product would not be exposed to air.

C1-C4. End of Life Stage

This stage includes the next modules:

C1. Deconstruction, demolition
The de-construction and/or dismantling of the product take part of the demolition of the entire building. A consumption of 0.05 MJ/kg of demolished product is used for this stage.
C2. Transport to waste processing
Transport to waste processing
C3. Waste processing for reuse, recovery and/or recycling
Waste processing for reuse, recovery and/or recycling
C4. Disposal
The product is landfilled at the end of life.

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

PARAMETER	VALUE/DESCRIPTION
Collection process specified by type	1,19 kg (1 kg of dry powder + 0,19 kg of water content) collected with mixed construction waste.
Recovery system specified by type	0% of Waste. There is no recovery, recycling or reuse of the product once it was reached its end of life phase.
Disposal specified by type	100 % (1 kg) 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

There are no inputs of secondary materials in A1-A5 the product is 100% landfilled and its packaging except wooden pallet that is reused 88%.

LCA results

As specified in EN 15804:2012+A2:2019/AC:2021 and the Product-Category Rules, the environmental impacts are declared and reported using the baseline characterization factors are from the ILCD. Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plant. Characterisation factors EN15804 based on 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.

The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity, noncancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological, and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

The following optional indicators are not declared: Ecotoxicity freshwater [CTUe], Particulate Matter emissions [Disease incidence], Cancer human health effects [CTUh], Ionizing radiation - human health [kBq U235 eq.], Non-cancer human health effects [CTUh] and Land Use [Pt].

This EPD includes LCA results for module C, we strongly discourage the use of the results of modules A1-A3 without considering the results of module C.

All figures refer to a declared unit of 1kg of dry powder.

The following results corresponds to a single product manufactured in one plant located in Montiglio:

Environmental Impacts

Environmental indicators	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE LIFE CYCLE
	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 CO2 eq.]	2,49E-01	1,39E-02	3,18E-02	0	0	0	0	0	0	0	4,89E-03	7,89E-03	0	1,64E-02	0
Climate Change (fossil) [kg CO2 eq.]	2,65E-01	1,37E-02	1,58E-02	0	0	0	0	0	0	0	4,89E-03	7,79E-03	0	1,63E-02	0
Climate Change (biogenic) [kg CO2 eq.]	-1,65E-02	3,63E-05	1,60E-02	0	0	0	0	0	0	0	4,24E-06	2,12E-05	0	1,35E-03	0
Climate Change (land use change) [kg CO2 eq.]	2,19E-04	1,29E-04	2,37E-05	0	0	0	0	0	0	0	9,31E-08	7,30E-05	0	5,14E-05	0
Ozone depletion [kg CFC-11 eq.]	4,51E-10	1,22E-15	3,72E-11	0	0	0	0	0	0	0	3,76E-16	1,03E-15	0	4,21E-14	0
Acidification terrestrial and freshwater [Mole of H+ eq.]	6,64E-04	1,70E-05	4,22E-05	0	0	0	0	0	0	0	7,70E-06	1,00E-05	0	1,17E-04	0
Eutrophication freshwater [kg P eq.]	1,66E-05	5,08E-08	8,64E-07	0	0	0	0	0	0	0	9,45E-10	2,88E-08	0	3,33E-08	0
Eutrophication marine [kg N eq.]	1,73E-04	6,03E-06	1,78E-05	0	0	0	0	0	0	0	2,66E-06	3,52E-06	0	3,03E-05	0
Eutrophication terrestrial [Mole of N eq.]	1,90E-03	7,07E-05	1,22E-04	0	0	0	0	0	0	0	2,94E-05	4,11E-05	0	3,34E-04	0
Photochemical ozone formation - human health [kg NMVOC eq.]	5,02E-04	1,49E-05	3,23E-05	0	0	0	0	0	0	0	8,06E-06	8,80E-06	0	9,15E-05	0
Resource use, mineral and metals [kg Sb eq.][1]	2,23E-06	9,04E-10	1,12E-07	0	0	0	0	0	0	0	4,94E-11	5,23E-10	0	7,65E-10	0
Resource use, energy carriers [MJ][1]	1,65E+00	1,89E-01	1,18E-01	0	0	0	0	0	0	0	6,51E-02	1,07E-01	0	2,20E-01	0
Water deprivation potential [m³ world equiv.][1]	1,91E-02	1,61E-04	1,06E-02	0	0	0	0	0	0	0	1,26E-05	9,53E-05	0	1,82E-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

Resources Use indicators[2]	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE LIFE CYCLE
	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] [2]	3,51E-01	1,34E-02	2,50E-02	0	0	0	0	0	0	0	2,87E-04	7,82E-03	0	3,59E-02	0
Primary energy resources used as raw materials (PERM) [MJ] [2]	1,59E-01	0	-9,54E-02	0	0	0	0	0	0	0	0	0	0	0	0
Total use of renewable primary energy resources (PERT) [MJ] [2]	5,09E-01	1,34E-02	-7,04E-02	0	0	0	0	0	0	0	2,87E-04	7,82E-03	0	3,59E-02	0
Use of non-renewable primary energy (PENRE) [MJ] [2]	1,56E+00	1,90E-01	1,14E-01	0	0	0	0	0	0	0	6,52E-02	1,08E-01	0	2,21E-01	0
Non-renewable primary energy resources used as raw materials (PENRM) [MJ] [2]	9,19E-02	0	4,60E-03	0	0	0	0	0	0	0	0	0	0	0	0
Total use of non-renewable primary energy resources (PENRT) [MJ] [2]	1,65E+00	1,90E-01	1,18E-01	0	0	0	0	0	0	0	6,52E-02	1,08E-01	0	2,21E-01	0
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]	5,81E-04	1,48E-05	2,58E-04	0	0	0	0	0	0	0	4,67E-07	8,56E-06	0	5,57E-05	0

[2] From EPD International Construction Product PCR 1.3.2 (Annex 3). The option B was reatined to calculate the primary energy use indicators.

Waste Category & Output flows

	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE LIFE CYCLE
Waste Category & Output Flows	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]	1,18E-05	7,02E-13	5,96E-07	0	0	0	0	0	0	0	1,88E-13	3,34E-13	0	4,80E-12	0
Non-hazardous waste disposed (NHWD) [kg]	6,95E-02	2,74E-05	6,49E-02	0	0	0	0	0	0	0	1,35E-05	1,64E-05	0	1,10E+00	0
Radioactive waste disposed (RWD) [kg]	5,60E-05	2,45E-07	4,16E-06	0	0	0	0	0	0	0	7,53E-08	2,02E-07	0	2,51E-06	0
Components for re-use (CRU) [kg]	0	0	6,87E-03	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				BENEFITS AND LOADS BEYOND THE LIFE CYCLE
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.][3]	2,65E-01	1,39E-02	1,58E-02	0	0	0	0	0	0	0	4,89E-03	7,87E-03	0	1,64E-02	0

[3] 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]	3,24E-04
Biogenic carbon content in packaging [kg]	4,37E-03

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

Additional information:

Electricity information

The factory based in Montiglio uses the following electricity description.

TYPE OF INFORMATION	DESCRIPTION
Location	Representative of Electricity purchased by SAINT-GOBAIN ITALIA S.P.A.
Geographical representativeness description	Biomass solid 0,63% Hard coal 22,72 % Fuel oil 7,33 % Hydro power 2.05 % Lignite 0.05 % Natural gas 58,22% Nuclear 4,40 % Photovoltaics 4.36 % Solar thermal 6,21% Wind power 0,43 %
Reference year	2023
Type of dataset	Cradle to gate from Gabi and ecoinvent databases
Source	European Residual Mixes 2023. Association of Issuing Bodies 2020
CO_2 emission kg CO_2 eq. / kWh	0,616 kg of CO_2 eq/kWh Climate Change - fossil indicator

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 SAINT GOBAIN ITALIA S.P.A . After evaluating the inventory, according to the defined ranking in the LCA report, the assessment reflects a good inventory data quality.

Environmental impacts according to EN 15804:2012 + A1

The following tables presents results according to EN 15804 +A1 represents results for 1 kg of dry powder of webertec Btconsolida35.

	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY, RECYCLING
Environmental impacts	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
Global Warming Potential (GWP) [kg CO2eq.]	2,65E-01	1,37E-02	1,62E-02	0	0	0	0	0	0	0	4,86E-03	7,77E-03	0	1,63E-02	0
Ozone depletion (ODP) [kg CFC 11eq.]	4,37E-10	1,29E-18	3,36E-11	0	0	0	0	0	0	0	4,28E-19	1,15E-18	0	4,93E-17	0
Acidification potential (AP) [kg SO2eq.]	5,40E-04	1,23E-05	3,45E-05	0	0	0	0	0	0	0	5,83E-06	7,30E-06	0	9,42E-05	0
Eutrophication potential (EP) [kg (PO4)3-eq.]	7,44E-05	2,99E-06	7,50E-06	0	0	0	0	0	0	0	9,54E-07	1,73E-06	0	1,07E-05	0
Photochemical ozone creation (POCP) - [kg Ethylene eq.]	4,70E-05	1,36E-06	3,08E-06	0	0	0	0	0	0	0	6,60E-07	7,94E-07	0	7,63E-06	0
Abiotic depletion potential for non-fossil resources (ADP-elements) [kg Sb eq.]	2,54E-06	1,05E-09	1,28E-07	0	0	0	0	0	0	0	5,69E-11	6,06E-10	0	5,04E-09	0
Abiotic depletion potential for fossil resources (ADP-fossil fuels) [MJ]	1,46E+00	1,89E-01	1,05E-01	0	0	0	0	0	0	0	6,50E-02	1,07E-01	0	2,13E-01	0

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