ENVIRONMENTAL PRODUCT DECLARATION

In accordance with EN 15804+A1 and ISO 14025

weber.pas 480 AquaBalance
weber.pas 481 AquaBalance

Date of issue: 2022-02-09
Validity: 5 years
Valid until: 2027-01-07
Scope of the EPD: Finland
PCR 2012:01 Construction products and construction services version 2.34

EPD VERIFIED

The environmental impacts of this product have been assessed over its whole life cycle. Its Environmental Product Declaration has been verified by an independent third party.

weber SAINT-GOBAIN

Registration number
The International EPD® System:

S-P-05048

ECO PLATFORM EPD VERIFIED

EPD® THE INTERNATIONAL EPD® SYSTEM

We care about people and their environment

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.

General information

Manufacturer: Saint-Gobain Weber GmbH Schanzenstr. 84, D-40549 Düsseldorf

Programme used: The International EPD® System. More information at www.environdec.com

PCR identification: The International EPD® System PCR 2012:01 Construction products and construction services version 2.34

UN CPC Code: 35420 (Glues and gelatine, peptones and their derivatives, and related products)

Owner of the declaration: Saint-Gobain Weber GmbH

Product / product family name and manufacturer represented: This EPD describes the environmental impacts of 1m2 of mortar weber.pas 480 AquaBalance and weber.pas 481 AquaBalance manufactured at Landsberg.

EPD® prepared by: Dieter Schübl (Saint-Gobain Weber GmbH) and Patricia Jimenez Diaz (Saint-Gobain LCA central team).

Contact: Dieter Schübl, Dieter.Schuebl@sg-weber.de

Declaration issued: 2022-02-09, **valid until:** 2027- 01-07

Demonstration of verification: an independent verification of the declaration was made, according to ISO 14025:2010. This verification was external and conducted by a third party, based on the PCR mentioned above (see information below).

CEN standard EN 15804 served as the core PCR	
EPD Program operator	International EPD System. Operated by EPD® International AB http://www.environdec.com/
PCR review conducted by	The Technical Committee of the International EPD® System. Chair: Massimo Marino. Contact via info@environdec.com
Independent verification of the declaration and data, according to ISO 14025	Internal ☐ External ☒
Third party verifier	Marcel Gomez Marcel Gómez Consultoria Ambiental (www.marcelgomez.com) Tlf 0034 630 64 35 93 Email: info@marcelgomez.com
Accredited or approved by	The International EPD System

Product description

Product description and description of use:

weber.pas 480 AquaBalance and weber.pas 481 AquaBalance is a factory-mixed, water-based silicone resin dispersion, ready-to-use top coat in wet form according to EN 15824 (DIN 18558 P Org. 1).

The final appearance of weber.pas 480 AquaBalance is a rilled finish texture with uniform round or straight grooves. The final appearance of weber.pas 481 AquaBalance is a floated finish with a grain-to-grain texture.

As silicone-based overlay render (top coat) for indoors and outdoors with excellent, durable protection against algae and fungi. Suitable as finish top coat on weber.dur underlay renders (base coat) and on weber.therm Etics systems (external thermal insulation composite systems).

Worst case scenario has been chosen for the calculation of the environmental impact.

Technical data/physical characteristics		
	weber.pas 480 AquaBalance	**weber.pas 481 AquaBalance**
Bonding strength	≥ 0.3 MPa	≥ 0.3 MPa
Class of reaction to fire (EN 13501-1)	A 2-s1, d0	A 2-s1, d0
Maximum water absorption	650 g/m²	650 g/m²
Water permeability (EN 15824)	W_2	W_2

Description of the main product components and/or materials:

Silicone resin, organic binders, graded mineral aggregates, additives for better workability and adhesion to base coat (underlay render), high-quality pigments, without biocidal facade preservation (film preservation)

PARAMETER	VALUE (expressed per functional unit)
Quantity of adhesive for 1 m²	4 kg
Packaging for the transportation and distribution	Polyethylene film: 6.6 g/m² PP bucket: 3.6 g/kg Wooden pallet: 133.3 g/m² Label: 0.0027 g/m²
Product used for the installation	none

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 program operator do not make any claim nor have any responsibility of the legality of the product.

LCA calculation information

FUNCTIONAL UNIT	1 m² of weber.pas AquaBalance product applied on a surface with a specific thickness (3mm) and density (4kg/m²) and with a useful life of 50 years
SYSTEM BOUNDARIES	Cradle to grave
REFERENCE SERVICE LIFE (RSL)	50 years
CUT-OFF RULES	Life Cycle Inventory data for a minimum of 99% of total inflows to the upstream and core module shall be included and at least 95% at the module level. Flows related to human activities such as employee transport are excluded. The construction of plants, production of machines and transportation systems are excluded
ALLOCATIONS	Based on mass repartition The polluter pays and modularity principles have been followed.
GEOGRAPHICAL COVERAGE AND TIME PERIOD	Data included is collected from one production site in Landsberg plant (Saint-Gobain Weber GmbH) Production year from 2020 Background data: Ecoinvent 3.3 – 3.5 (from 2015 to 2019) and GaBi 9.2 (from 2013 to 2019)

According to EN 15804, EPD of construction products may not be comparable if they do not comply with this standard. According to ISO 21930, Environmental Product Declarations within the same product category from different programs may not be comparable.

Life cycle stages

Flow diagram of the Life Cycle

Figure 1: Life Cycle illustration of a product for construction

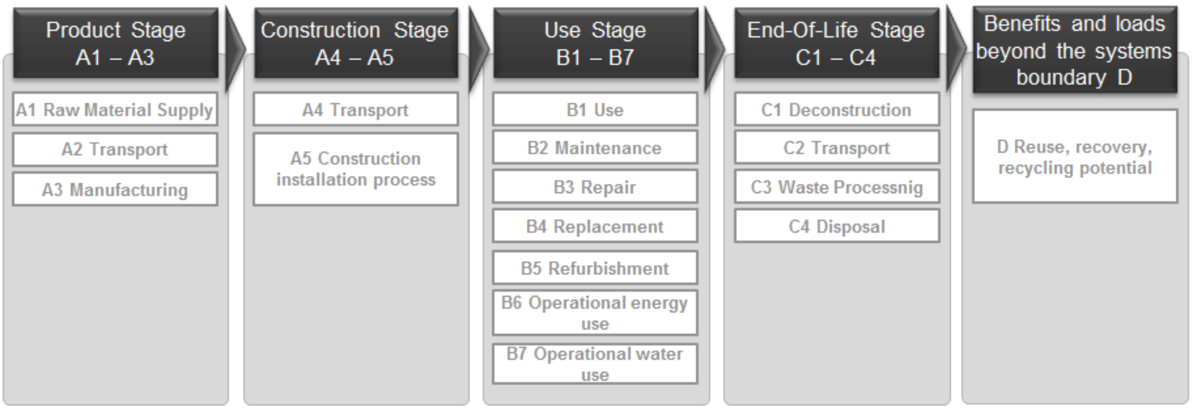


Figure 2: Cradle to grave analysis taking into account all stages of the Life Cycle product

Product stage, A1 - A3

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" and "manufacturing".

The aggregation of the modules A1, A2 and A3 is a possibility considered by the EN 15 804 standard. This rule is applied in this EPD.

Raw material supply – A1

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 and production of all binder components and additives.

Transport to manufacturer – A2

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

Manufacture – A3

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

The manufacturing process also collect data on the combustion of refinery products, such as diesel and gasoline, related to the production process.

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

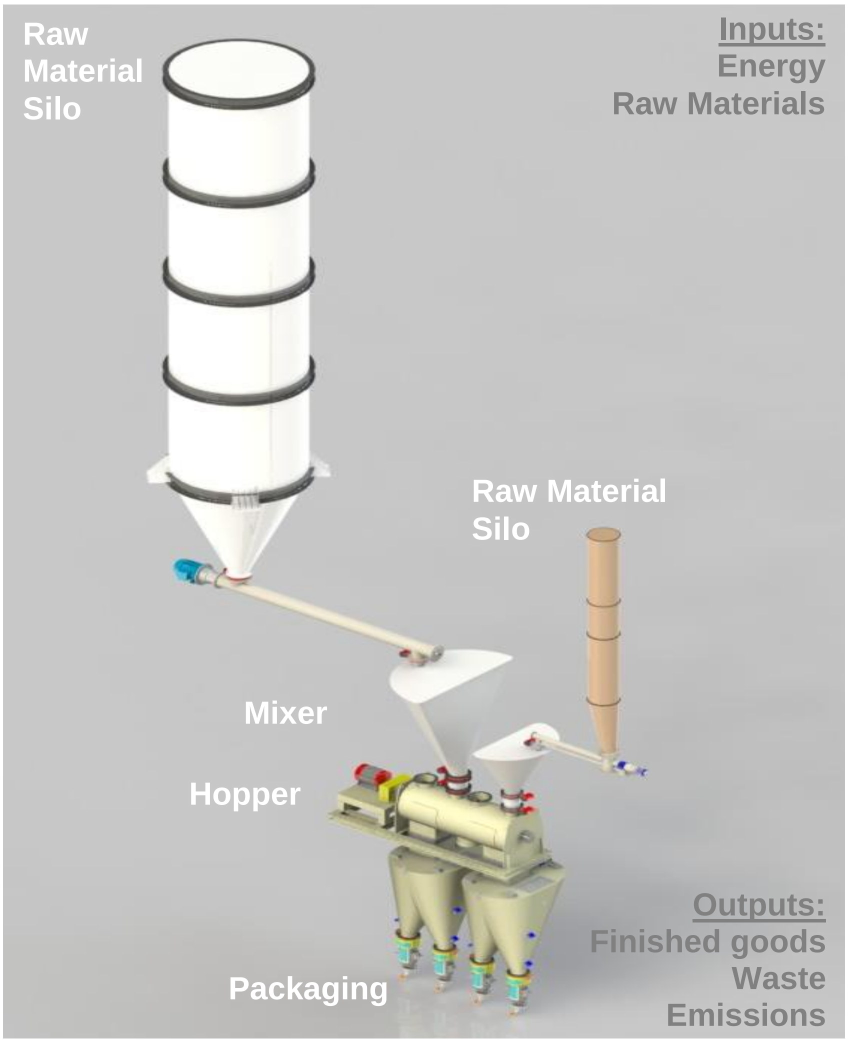
Packaging-related flows in the production process and all up-stream packaging are included in the manufacturing module, i.e. wooden pallets, buckets and LDPE film.

Apart from 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.

It is assumed that packaging waste generated in the course of production and up-stream processes is 100% collected and modeled as landfill except for the pallet that are modeled as material for recycling.

[1] **Included Transport**

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



Construction process stage, A4 - A5

Description of the stage:

Transport – A4

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.

Transport to the building site:

PARAMETER	VALUE (expressed per functional unit)
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc.	Truck, 36.6l per 100km with payload 17t and forward real load 17t Container ship, 5,000 to 200,000 dwt payload capacity
Distance	450 km by truck 1132 km by boat
Capacity utilisation (including empty returns)	For truck: 75% capacity utilization in mass including 50% of empty returns in mass (calculated) For boat: 70% capacity utilization (default value in Gabi dataset)
Bulk density of transported products	1200 kg/m^3
Volume capacity utilisation factor	1 (by default)

Construction installation process – A5

During installation and construction, 0.5% of the material amount is estimated to be wasted through excess preparation and cleaning processes. The losses are considered as landfilled. Within module A5, site-related packaging waste processing is included in the LCA.

End-of-life of packaging materials is reported and allocated to the module where it arises. Packaging materials are considered 100 % collected and recycled or landfilled. Wooden pallets are considered recycled in established systems.

Installation in the building:

PARAMETER	VALUE (expressed per functional unit)
secondary materials for installation (specified by materials)	none
Water use	none
Other resource use	none
Quantitative description of energy type (regional mix) and consumption during the installation process	none
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	0.02 kg (0.5%)
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)	Polyethylene film: 6.6 g/m² Bucket: 3.6 g/kg Wooden pallet: 133.3 g/m² Label: 0.0027 g/m²
Direct emissions to ambient air, soil and water	None

Use stage (excluding potential savings), B1 - B7

Description of the stage:

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.

The product covered by this EPD does not require any maintenance as it is aimed for weber mortar. 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.

End-of-life stage C1 - C4

Description of the stage:

Landfill is considered to be the worst scenario.

The end-of-life stage is divided into the following modules:

Deconstruction – C1

The de-construction and/or dismantling of the product take part of the demolition of the entire building. In our case, the environmental impact is assumed to be very small and can be neglected.

Transport to waste processing – C2

The model use for the transportation is applied (cf. table below).

Waste processing – C3

The product is considered to be landfilled without reuse, recovery or recycling. It is classified as 'non-hazardous waste' in the European list of waste products.

Disposal –C4

The impact of landfill is taken into account according to available data.

Additional technical information of End-of-life:

PARAMETER	VALUE (expressed per functional unit)
Collection process specified by type	4 kg collected with mixed construction waste.
Recovery system specified by type	0% of waste
Disposal specified by type	100 % (4 kg) product to municipal landfill
Assumptions for scenario development (e.g. transportation)	Average truck trailer with 27t payload, diesel consumption 38l/100km; 100km distance to landfill

Reuse/recovery/recycling potential, D

Post-consumer recycling scenarios are not considered within this EPD.

LCA results

Description of the system boundary, X = Included in LCA, MND = Module Not Declared

CML 2001 (version April 2013) has been used as the impact model. Specific data has been supplied by the plant, and generic data come from GABI and Ecoinvent databases.

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

Resume of the LCA data results are detailed on the following tables and they refer to a functional unit of 1m² of weber.pas AquaBalance.

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
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MND

ENVIRONMENTAL IMPACTS

Parameters	Product stage	Construction process 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	
Global Warming Potential (GWP) - *kg CO2equiv/FU*	2,08E+00	2,09E-01	1,77E-02	0	0	0	0	0	0	0	1,76E-02	1,90E-04	0	5,96E-02	NMD
	The global warming potential of a gas refers to the total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas, carbon dioxide, which is assigned a value of 1.														
Ozone Depletion (ODP) *kg CFC 11 equiv/FU*	8,03E-05	3,99E-17	4,02E-07	0	0	0	0	0	0	0	2,53E-18	4,73E-20	0	3,03E-16	NMD
	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons), which break down when they reach the stratosphere and then catalytically destroy ozone molecules.														
Acidification potential (AP) *kg SO2equiv/FU*	2,14E-02	2,16E-03	1,21E-04	0	0	0	0	0	0	0	4,37E-05	7,68E-07	0	3,50E-04	NMD
	Acid depositions have negative impacts on natural ecosystems and the man-made environment incl, buildings. The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production, heating and transport.														
Eutrophication potential (EP) *kg (PO4)3-equiv/FU*	6,85E-03	2,50E-04	4,40E-05	0	0	0	0	0	0	0	3,48E-06	1,92E-07	0	3,94E-05	NMD
	Excessive enrichment of waters and continental surfaces with nutrients, and the associated adverse biological effects.														
Photochemical ozone creation (POPC) *Etheneequiv/FU*	3,36E-05	1,18E-04	5,62E-06	0	0	0	0	0	0	0	3,36E-06	3,08E-08	0	2,86E-05	NMD
	Chemical reactions brought about by the light energy of the sun. The reaction of nitrogen oxides with hydrocarbons in the presence of sunlight to form ozone is an example of a photochemical reaction.														
Abiotic depletion potential for non-fossil ressources (ADP-elements) - *kg Sbequiv/FU*	3,37E-05	2,49E-09	1,69E-07	0	0	0	0	0	0	0	4,80E-10	1,74E-11	0	2,08E-08	NMD
Abiotic depletion potential for fossil ressources (ADP-fossil fuels) - *MJ/FU*	3,08E+01	2,82E+00	1,73E-01	0	0	0	0	0	0	0	2,18E-01	2,58E-03	0	7,74E-01	NMD
	Consumption of non-renewable resources, thereby lowering their availability for future generations.														

RESOURCE USE

Parameters	Product stage	Construction process 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	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials - *MJ/FU*	7,07E+00	5,25E-02	3,40E-02	0	0	0	0	0	0	0	7,62E-04	1,49E-04	0	1,05E-01	NMD
Use of renewable primary energy used as raw materials *MJ/FU*	5,24E-01	0	2,60E-03	0	0	0	0	0	0	0	0	0	0	0	NMD
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) *MJ/FU*	8,11E+00	5,25E-02	3,66E-02	0	0	0	0	0	0	0	7,62E-04	1,49E-04	0	1,05E-01	NMD
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw	3,42E+01	2,83E+00	1,88E-01	0	0	0	0	0	0	0	2,19E-01	2,59E-03	0	7,96E-01	NMD
Use of non-renewable primary energy used as raw materials *MJ/FU*	6,90E-01	0	3,43E-03	0	0	0	0	0	0	0	0	0	0	0	NMD
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) - *MJ/FU*	3,49E+01	2,83E+00	1,91E-01	0	0	0	0	0	0	0	2,19E-01	2,59E-03	0	7,96E-01	NMD
Use of secondary material *kg/FU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NMD
Use of renewable secondary fuels- *MJ/FU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NMD
Use of non-renewable secondary fuels - *MJ/FU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NMD
Use of net fresh water - *m3/FU*	3,38E-02	1,22E-05	1,68E-04	0	0	0	0	0	0	0	1,36E-06	1,74E-07	0	2,00E-04	NMD

WASTE CATEGORIES

Parameters	Product stage	Construction process 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	
Hazardous waste disposed *kg/FU*	2,16E-08	1,82E-10	2,02E-10	0	0	0	0	0	0	0	2,22E-11	1,20E-10	0	1,21E-08	NMD
Non-hazardous (excluding inert) waste disposed *kg/FU*	5,66E-02	5,70E-05	2,87E-02	0	0	0	0	0	0	0	5,41E-05	4,11E-07	0	4,00E+00	NMD
Radioactive waste disposed *kg/FU*	8,45E-05	3,18E-06	3,27E-07	0	0	0	0	0	0	0	2,51E-07	4,77E-09	0	8,93E-06	NMD

OUTPUT FLOWS

Parameters	Product stage	Construction process 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	
Components for re-use *kg/FU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NMD
Materials for recycling *kg/FU*	0	0	1,33E-01	0	0	0	0	0	0	0	0	0	0	0	NMD
Materials for energy recovery *kg/FU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NMD
Exported energy, detailed by energy carrier *MJ/FU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NMD

Environmental parameters description

Environmental impacts

Global warming potential

The global warming potential of a gas refers to the total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas CO_2, which is assigned a value of 1. For example, if CH_4 (methane) has a global warming potential of 21, it means that 1kg of methane has the same impact on climate change as 21kg of CO_2 and thus 1kg of CH_4 would count as 21kg of CO_2 equivalent.

Ozone Depletion

Ozone depletion is the destruction of the stratospheric ozone layer which shields the earth from UV radiation harmful to life.

Acidification potential

Acid depositions have negative impacts on natural ecosystems and the man-made environment, incl. buildings. The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production, heating and transport.

Eutrophication potential

It corresponds to an excessive enrichment of waters and continental surfaces with nutrients, and the associated adverse biological effects.

Photochemical ozone creation

Chemical reactions brought about by the light energy of the sun. The reaction of nitrogen oxides with hydrocarbons in the presence of sunlight to form ozone is an example of a photochemical reaction. It corresponds to the pollution of the air at ground level.

Abiotic depletion potential for fossil and non-fossil resources

The abiotic depletion potential is the consumption of non-renewable resources, thereby lowering their availability for future generations.

Resource Use

Use of primary energy resources

Renewable energy is energy from non-fossil sources (wind, solar, geothermal, etc.
Renewable resource is a resource that is grown, naturally replenished or naturally cleansed. on a human time scale.

Non-Renewable energy is energy from sources which are not defined as renewable energy sources.
Non-renewable resource is resource that exists in a finite amount that cannot be replenished on a human scale.

Use of secondary material

Secondary material is material recovered from previous use or from waste which substitutes primary materials. Materials recovered from previous use of from waste from one product system and used as an input in another product system are secondary materials (recycled scrap metal, recycled plastic, recycled wood chips, etc.)

Use of secondary fuels

Secondary fuel is fuel recovered from previous use or from waste which substitutes primary fuels. Any combustible material recovered from previous use or from waste from the previous product system and used as a fuel in a following system is a secondary fuel (e.g. solvents, used tyres, used oil, etc.)

Use of net fresh water

Fresh water is naturally occurring water on the Earth's surface (ice, lakes, rivers, groundwater, etc.) It is generally characterized by having low concentrations of dissolved salts; the term specifically excludes seawater and brackish water.

Waste categories

Hazardous waste disposed

This kind of waste poses substantial or potential threats to public health or the environment

Non-hazardous waste disposed

This kind of waste is a waste that can burn, produce chemical, physical or biological reaction but without being hazardous or toxic for human health (e.g. PE, PVC, PS, metals, non-treated wood, construction waste mixed with non-mineral waste without any hazardous substance inside, etc.).

Radioactive waste disposed

These kinds of wastes contain radioactive material. Radioactive wastes are usually by-products or nuclear power generation and other applications of nuclear fission or nuclear technology, such research and medicine. Radioactive waste is hazardous to most forms of life and the environment, and is regulated by government in order to protect human health and the environment.

Output flows

Components for re-use

To re-use is to use again after it has been used: this includes conventional reuse where the item is used again for the same function and new-life reuse where it is used for a different function.

Material for recycling

In contrast with re-use, recycling is the breaking down of the used item into raw materials which are used to make new items.

Materials for energy recovery

It includes any technique or method of minimizing the input of energy to an overall system by the exchange of energy from one sub-system to another.

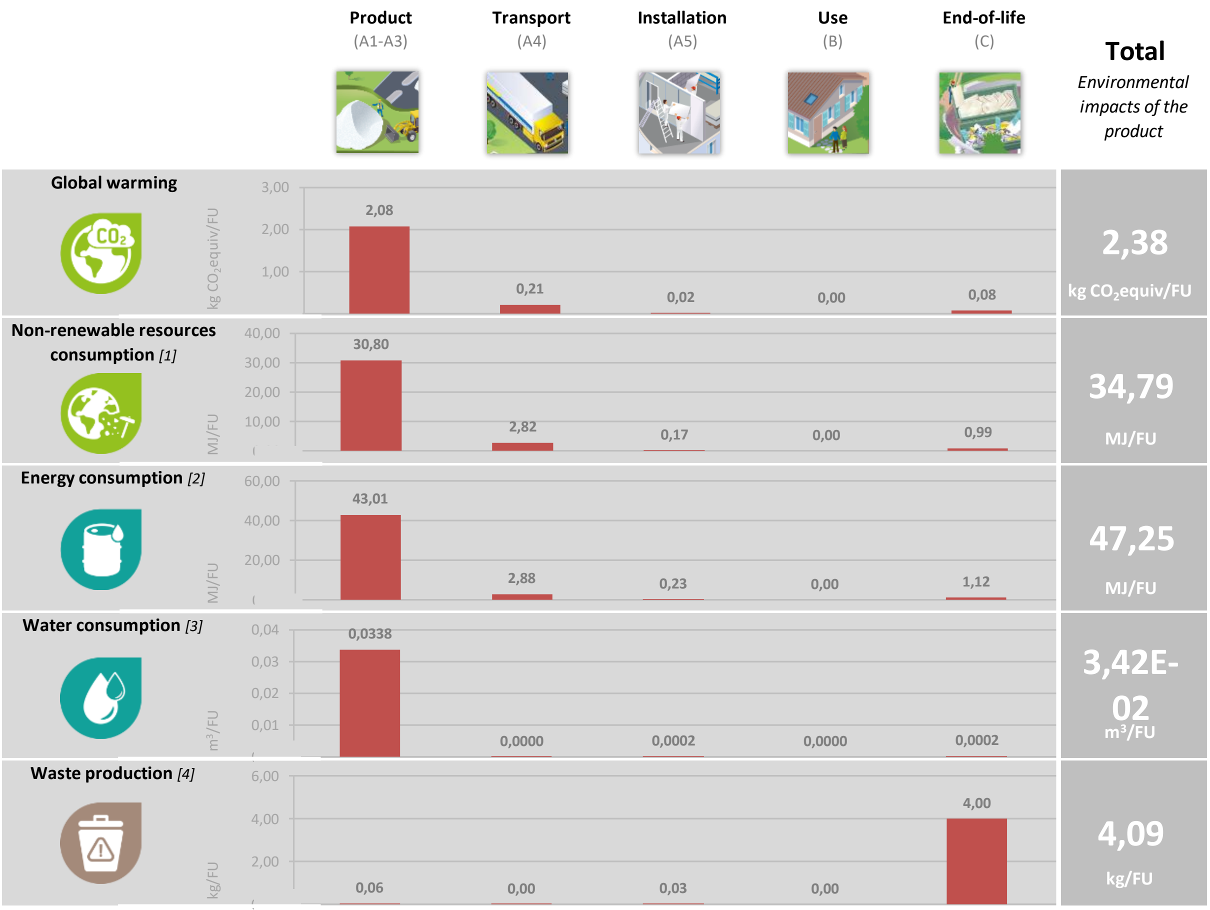
Exported energy

It relates to energy exported from waste incineration and landfill

Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator

LCA results interpretation

The following figure refers to a functional unit of 1m² of weber.pas AquaBalance.



[1] This indicator corresponds to the abiotic depletion potential of fossil resources.
[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.

Comments:

With the graphic view above, it is possible to assess which steps of the LCA are the most impacting for the chosen indicators

- The main environmental impacts of the product life cycle come from extraction and processing of raw materials (A1-A3). The Product stage is responsible for over 80 % of the impact for following indicators: Global Warming, Non-renewable resources consumption and Energy consumption.
- As expected, waste production is mainly generated (over 95 %) during the end-of-life stage with building demolition.
- The formula mix and distribution pattern have identifiable impacts on the total.

Additional information

Data Quality

Scope: Germany for primary data and mainly Europe for database processes.

Period: 2020

Background information is taken from the GaBi or Ecoinvent 3.6 database, trade association or suppliers data.

Raw Materials	Generic database, trade association and supplier data
Production	Own specific data
Transport	Generic and specific data
Application	Generic and specific data
Life in Use	Generic data
End of Life	Generic data
Energy	Generic average country

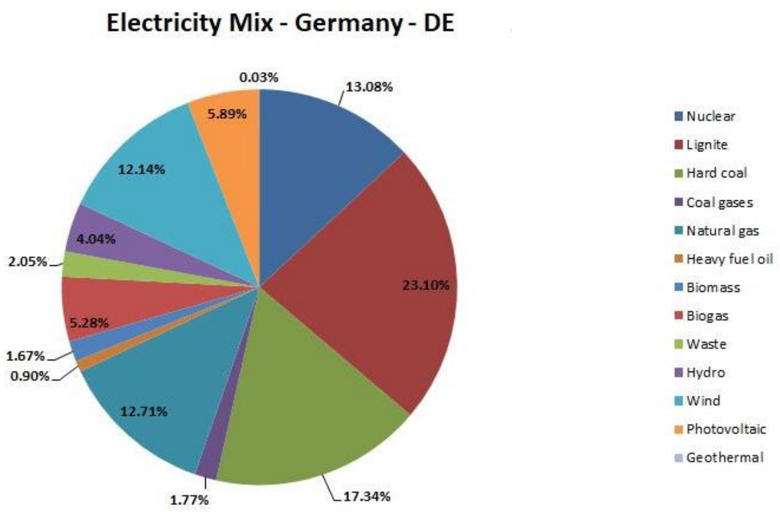
Additional Norwegian requirement

Electricity Greenhouse gas emissions from the use of electricity in the manufacturing phase

TYPE OF INFORMATION	DESCRIPTION
Location	Representative of average production in Germany (2019)
Geographical representativeness description	Split of energy sources in Germany • bio fuel 7% • coal 42% • hydro 4% • natural gas 13% • nuclear 13% • oil 1% • other source 0% • solar pv 6% • waste 2% • wind 12%
Reference year	2016
Type of data set	Cradle to gate from GaBi database version 2019
Source	International Energy Agency -2016

The dataset used to model the renewable electricity mix used for these calculations come from thinkstep database.

DATA SOURCE	AMOUNT	UNIT
thinkstep (2019)	0.618	kg CO2 eq /KWh



Dangerous substances

The product contains no substances given by the REACH Candidate list (of 15.01.2018) or the Norwegian priority list. (REACH registration number 01-2119472313-44-0039)

Indoor environment

No test.

References

1. EPD International (2017) General Programme Instructions for the International EPD® System. Version 2.5, dated 2017-12-11. www.environdec.com.
2. The International EPD System PCR 2012:01 Construction products and Construction services, Version 2.34
3. EN 15804:2012+A1:2013 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
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