

ENVIRONMENTAL PRODUCT DECLARATION

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



THE INTERNATIONAL EPD® SYSTEM

EPD Registration number
EPD-IES-0014286



webermix M Block

Version: 1

Publication date: 2024/08/18

Valid until: 2029/08/17

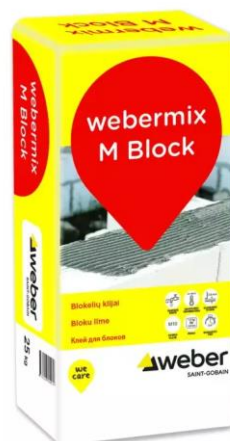
Scope of the EPD®: Lithuania

Manufacture: Saint-Gobain Statybos Gaminiai, UAB

Programme: The International EPD® System
(www.environdec.com)

Programme Operator: EPD International AB

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



General information

Product name: webermix M Block

UN CPC code: 37510 Non-refractory mortars and concretes

GTIN(s): 4779024422957

Declared Unit: 1 kg of webermix M Block

Owner of the declaration: Saint-Gobain Statybos Gaminiai UAB

Manufacturer: Saint-Gobain Statybos Gaminiai UAB, Mėnulio str. 7, LT-04326 Vilnius, Lithuania

e-mail: info.lt@saint-gobain.com / **website:** <https://www.lt.weber/>

Production site: Neveronys plant, Lithuania

Contact person: Laima Biezumaite-Anceviciene (laima.biezumaite@saint-gobain.com)

Geographical scope of the EPD®: Lithuania

Year of data: 2023

EPD® prepared by: Quentin Lamache (Saint-Gobain Nordic & Baltic) and Laima Biezumaite-Anceviciene (Saint-Gobain Statybos Gaminiai UAB)

EPD® registration number: EPD-IES-0014286

Declaration issued: 2024/08/18, **valid until:** 2029/08/17

Management system - related certifications: ISO 9001 (Certificate No.: LT006496), ISO 14001 (Certificate No.: LT006497)

Demonstration of verification: An independent verification of the declaration was made, according to EN ISO 14025:2006. This verification was external and conducted by a third party, based on the PCR mentioned below.

Programme information

Programme:	The International EPD® System
Address:	EPD International AB - Box 210 60 - SE-100 31 Stockholm - Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

CEN standard EN 15804:2012 + A2:2019/AC:2021 serves 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. See www.environdec.com for a list of members.

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

☐ EPD process certification ☒ EPD verification

Third party verifier: Marcel Gómez

Company name: Marcel Gómez Consultoría Ambiental S.L **Tel:** +33 630 64 35 93 **E-mail:** info@marcelgomez.com

Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third part verifier:

☒ Yes ☐ No

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

webermix M Block is a block glue (thin-layer cement mixture), used for building (gluing) external and internal walls from precise dimensions or calibrated aerated concrete, silicate, expanded clay and concrete blocks. The recommended seam thickness is 2-3 mm.

Product website: <https://www.lt.weber/muro-misiniai/spalvoti-ir-pilki-muro-misiniai/webermix-m-block>

The product is delivered in 25 kg bags.

This EPD applies for one specific product.

Technical data / physical characteristics		
Reaction to fire	A1	EN 13501-1
Installation information (kg/m ²)	5,5	With thickness of 2 – 3 mm
Compressive strength 28 days	≥ 10,0 N/mm ² (Class M 10)	EN 998-2
Initial shear strength	≥ 0,3 N/mm ²	EN 998-2, Annex C
Bending strength parallel to the plane	0,15 N/mm ² (Clay, autoclaved aerated concrete and dimensioned natural stone masonry unit)	table value EN 1-1-1996
	0,2 N/mm ² (Calcium silicate and aggregate concrete masonry unit)	
Bending strength perpendicular to the plane	0,15 N/mm ² (Clay and dimensioned natural stone masonry unit)	table value EN 1-1-1996
	0,2 N/mm ² (Autoclaved aerated concrete (ρ < 400 kg/m ³) masonry unit)	
	0,3 N/mm ² (Calcium silicate, aggregate concrete and autoclaved aerated concrete (ρ ≥ 400 kg/m ³) masonry unit)	
Contents of chlorides	≤ 0,1 % Cl	EN 998-2
Water absorption	≤ 0,20 kg/m ² ·min ^{0,5} (Category W2)	EN 998-2
Water vapor permeability	m 15/35	table value EN 1745
Thermal conductivity	(λ ₁₀ , dry) 0,61 W/mK	table value EN 1745 (P = 50 %)

Declaration of the main product components and/or materials

Product components	Weight (%)	Post-consumer material (%)	Biogenic material (% and kg C / DU)
Standard product	100%		
Binder	10% – 25%	0%	0%
Filler / aggregates	75%– 90%	0%	0%

Additives	0,1% – 1,9%	0%	0,22% resp. 0,0022 kg C/DU
Packaging	Weight (kg)	Weight (%) (versus the DU)	Biogenic material weigh (kg C/ DU)
Polyethylene	0,0004 kg	0,04%	0 kg
Composite bag	0,003 kg	0,3%	0,001 kg C/ DU
Pallet	0,016 kg	1,6%	0,009 kg C/ DU

Hazardous substances

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.

Substance	CAS.no	Amount (%) / DU
Natural sand	14808-60-7	60 - 80%
Portland Cement	65997-15-1	20 - 25%

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; module A+B+C+D
Declared unit	1 kg of webermix M Block
System boundaries	Mandatory Stages = A1-A3; C1-C4 and D, Optional stages: A4 – A5 and B.
Reference service life (RSL)	50 years
Cut-off rules	All input and outputs for raw materials, additives and energy has been included. Life Cycle Inventory data for a minimum of 99% of total inflows to the upstream and core module shall be included. Flows related to human activities such as employee transport are excluded. Transportation in-site is excluded. The construction of plants, production of machines and transportation systems are excluded
Allocations	Whenever was possible, allocation was avoided. For those cases that was not possible, physical allocation based on mass is considered. The polluter pays and modularity principles have been followed.
Geographical coverage And time period	Scope: Lithuania Data is collected from 1 production site: Neveronys plant located in Lithuania. Data collected for the year: 2023
Background data source	The databases Gabi 2022 and ecoinvent v.3.8
Software	GaBi 10
Data quality assessment	The total score (geographical, temporal and technology) of the data quality is assess as good.

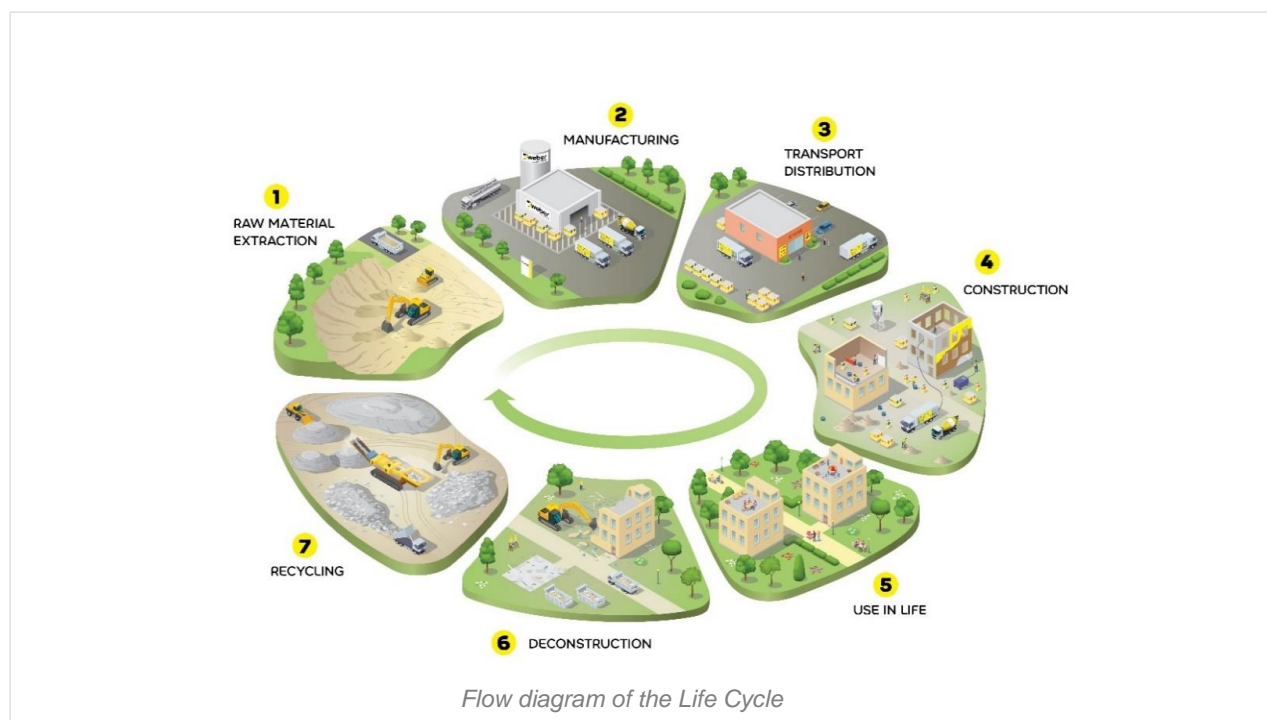
LCA scope

	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	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	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	GLO	GLO	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT
Specific Data used ¹	> 90 % GWP- GHG																
Variation products	0%																
Variation sites	0%																

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

¹ For this study, specific data is considered as raw materials, energy and water consumptions, wastes and emissions related to the manufacturing process.

Life cycle stages



A1-A3, Product stage

The product stage of the Weber products is subdivided into 3 modules.

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

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 of each raw material, based on specific distances from supplier to the manufacturing site.

A3, Manufacturing

This module includes manufacturing of products and linked on-site activities such as grinding, drying, storing, mixing and packing, including:

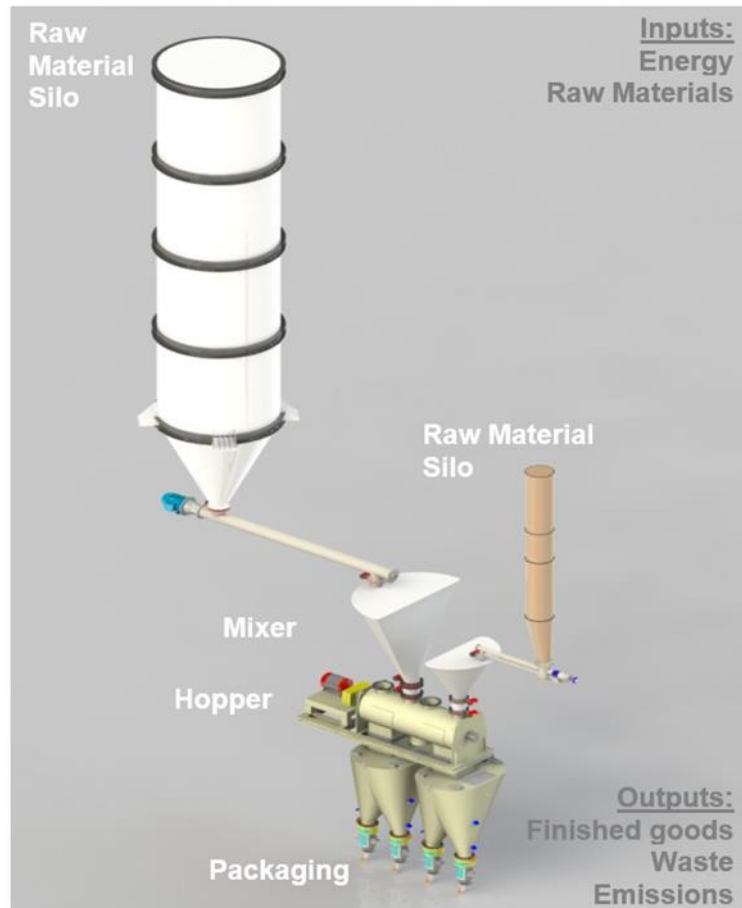
- Energy use and the combustion of refinery products, such as diesel, related to the production process.
- Waste generated during the production, including also packaging waste
- Packaging-related flows in the production process and all up-stream packaging. Apart from production of packaging material, the supply and transport of packaging material are also considered and 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 production and up-stream processes is 100% collected and either recycled or incinerated with energy recovery.

During the manufacturing process, 100% renewable electricity / fossil free electricity bought with Guarantee of Origin (GO) has been used, with a CO₂ emission of 0,0446 kg CO₂ eq. / kWh. 100% of the electricity consumption is covered by the GO's. See description of the electricity in "Additional Information".

Manufacturing process flow diagram



A4-A5, Construction process stage

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 / Description
Vehicle type, fuel type and consumption used for transport to building site	Freight truck trailer 24t payload, diesel consumption 38 l/100 km
Distance to building site	140 km
Capacity utilization (including empty returns)	100% of the capacity in mass 30% of empty returns
Bulk density of transported products	1435 kg / m ³
Volume capacity utilization factor	1 (by default)

A5, Installation in the building:

The powder is mixed with water using a drill whisk. The mortar is applied to the surface manually with a notched trowel.

Parameter	Value / Description
Secondary materials for installation (specified by materials)	None
Water use	0,23 l / kg
Other resource use	None
Energy used during the installation process (consumption and type)	0,00528 MJ/kg (national grid mix)
Wastage of materials on the building site before waste processing	Product: During Installation: 0 % landfill In bags/mixer: 5 % landfill Packaging: 100 % landfill
Output materials as results of waste processing at the building site e.g. collected for recycling, for energy recovering, disposal	Product: 0,05 kg landfill Polyethylene bag: 0,003 kg landfill Polyethylene film: 0,0004 kg landfill Wooden pallet: 0,016 kg landfill
Direct emissions to ambient air, soil and water	None
Vehicle type, fuel type and consumption used for transport to waste treatments	Freight truck trailer 24 t payload, diesel consumption 38 L/100 km
Distance to waste processing	Landfill: 25 km

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 and B7 (Operational energy and water).

Once installation is complete, no actions or technical operations are required in the stages B1 – B7

- Maintenance, repair, replacement or restoration are irrelevant in the specified applications.
- The product does not require any energy, water or material input to keep it in working order.
- 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 declare product performances, and a working life that equals the building's lifetime can be assumed.

C1-C4, End of Life Stage

C1, Deconstruction, demolition

The de-construction and/or dismantling of the product take part of the demolition of the entire building, however, in our case, a small amount 0,05 MJ/kg of energy is considered.

C2, Transport to waste processing

Truck is used for transport, and distances to relevant waste processing site has been considered.

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
Energy used for demolition	0,05 MJ/kg
Collection process specified by type	1 kg collected with mixed construction waste.
Recovery system specified by type	0 kg for recycling, 0 kg for incineration with/without energy recovery
Disposal specified by type	1 kg to landfill
Vehicle type, fuel type and consumption used for transport to waste treatments	Average truck trailer with 27t payload, diesel consumption 38L/100km;
Distance	Landfill: 25 km

D, Reuse/recovery/recycling potential

100% of wastes are landfilled, so no recycling, recovery or reuse has been considered.

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 from EC-JRC. Specific data has been supplied by the plant, and generic data come from GABI and Ecoinvent databases. Characterization factors of EN15804 are 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.

LCA data results are detailed on the following tables and they refer to:








A declared unit of 1 kg of webermix M Block

The results are expressed in Unit / DU, for example e.g. kg CO₂ equiv / DU, MJ / DU and kg / DU

Product variants











There are no color variants of this product.

Environmental Impacts









			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 (GWP-total)	kg CO ₂ eq.	2,18E-01	8,58E-03	4,48E-02	0	0	0	0	0	0	0	4,79E-03	5,19E-05	0	2,30E-02	0
	Climate Change (fossil) (GWP-fossil)	kg CO ₂ eq.	2,57E-01	8,37E-03	1,74E-02	0	0	0	0	0	0	0	4,78E-03	5,16E-05	0	1,62E-02	0
	Climate Change (biogenic) (GWP-biogenic)	kg CO ₂ eq.	-4,64E-02	2,10E-04	3,90E-02	0	0	0	0	0	0	0	6,30E-06	8,68E-08	0	8,27E-03	0
	Climate Change (land use change) (GWP-luluc)	kg CO ₂ eq.	6,99E-05	4,88E-07	7,44E-06	0	0	0	0	0	0	0	1,05E-07	4,19E-07	0	4,67E-05	0
	Ozone depletion (ODP)	kg CFC-11 eq.	3,30E-09	1,23E-18	2,18E-10	0	0	0	0	0	0	0	5,08E-19	9,49E-21	0	6,02E-17	0
	Acidification terrestrial and freshwater (AP)	Mole of H ⁺ eq.	5,31E-04	1,44E-05	4,09E-05	0	0	0	0	0	0	0	1,41E-05	3,00E-07	0	1,16E-04	0
	Eutrophication (EP) freshwater	kg P eq.	7,11E-06	1,61E-09	1,38E-06	0	0	0	0	0	0	0	1,06E-09	1,58E-10	0	2,79E-08	0
	Eutrophication (EP) marine	kg N eq.	2,18E-05	4,93E-09	4,25E-06	0	0	0	0	0	0	0	3,24E-09	4,84E-10	0	8,56E-08	0
	Eutrophication (EP) terrestrial	Mole of N eq.	6,86E-04	6,05E-06	4,09E-05	0	0	0	0	0	0	0	2,62E-06	1,44E-07	0	3,00E-05	0
	Photochemical ozone formation (POCP) - human health	kg NMVOC eq.	1,76E-03	6,67E-05	1,30E-04	0	0	0	0	0	0	0	2,87E-05	1,60E-06	0	3,29E-04	0
	Resource use, mineral and metals (ADPE)	[kg Sb eq.] ¹	4,82E-04	1,29E-05	3,63E-05	0	0	0	0	0	0	0	8,22E-06	2,74E-07	0	9,07E-05	0
	Resource use, energy carriers (ADPF)	[MJ] ¹	2,03E-07	1,00E-10	1,47E-08	0	0	0	0	0	0	0	1,25E-10	4,18E-12	0	1,46E-09	0
	Water deprivation potential (WDP)	[m³ world equiv.] ¹	1,72E+00	1,15E-01	1,21E-01	0	0	0	0	0	0	0	5,84E-02	6,90E-04	0	2,13E-01	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	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, excluding renewable energy resources used as raw materials (PERE) [MJ]	6,87E-01	2,79E-03	3,47E-02	0	0	0	0	0	0	0	2,04E-4	3,99E-05	0	2,79E-02	0
 Primary energy resources used as raw materials (PERM) [MJ]	4,01E-01	0	2,01E-02	0	0	0	0	0	0	0	0	0	0	0	0
 Total use of renewable primary energy resources (PERT) [MJ]	1,09E+00	2,79E-03	5,48E-02	0	0	0	0	0	0	0	2,04E-4	3,99E-05	0	2,79E-02	0
 Use of non-renewable primary energy, excluding non-renewable energy resources used as raw materials (PENRE) [MJ]	1,72E+00	1,16E-01	1,21E-01	0	0	0	0	0	0	0	5,84 E-2	6,93E-04	0	2,13E-01	0
 Non-renewable primary energy resources used as raw materials (PENRM) [MJ]	3,75E-02	0	1,87E-03	0	0	0	0	0	0	0	0	0	0	0	0
 Total use of non-renewable primary energy resources (PENRT) [MJ]	1,76E+00	1,16E-01	1,23E-01	0	0	0	0	0	0	0	5,84 E-2	6,93E-04	0	2,13E-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]	5,57E-04	5,07E-07	2,71E-04	0	0	0	0	0	0	0	3,63E-07	4,65E-08	0	5,37E-05	0

Waste Category & Output flows



Waste Category & Output Flows		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	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
	Hazardous waste disposed (HWD) [kg]	3,50E-09	7,44E-12	3,99E-10	0	0	0	0	0	0	0	5,92E-12	3,20E-11	0	3,25E-09	0
	Non-hazardous waste disposed (NHWD) [kg]	1,57E-02	2,34E-06	6,96E-02	0	0	0	0	0	0	0	1,45E-05	1,10E-07	0	1,07E+00	0
	Radioactive waste disposed (RWD) [kg]	3,42E-05	1,31E-07	4,03E-07	0	0	0	0	0	0	0	6,71E-08	1,28E-09	0	2,42E-06	0
	Components for re-use (CRU) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Materials for Recycling (MFR) [kg]	9,58E-04	0	4,79E-05	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 indicators from EN 15804+A2

		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 CO ₂ eq.] ²	2,97E-01	7,38E-03	1,30E-02	0	0	0	0	0	0	0	0,00E+00	5,24E-05	0	1,65E-02	0

² This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product and packaging. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

Information about biogenic carbon content

Biogenic Carbon Content in kg C / DU		At factory gate, A3
	Biogenic carbon content in product [kg]	2,26E-03
	Biogenic carbon content in packaging [kg]	1,05E-02

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

The biogenic carbon content in the product comes from raw materials additives, and in the packaging, it mainly comes from the wooden pallet.

Additional information:

Electricity information

Type of information	Value / Description
Location	Representative of Electricity purchased by Saint-Gobain Statybos Gaminiai UAB
Geographical representativeness description	Split of electricity bought with GO, 100 % of total: Hydro 36.73 % Solar power 0.81 % Wind power 49.74 % Thermal 12.73 %
Reference year	2023 <i>The GO will be prolonged to be valid at least to the validity of this EPD.</i>
Type of dataset	Cradle to gate from Gabi database
Source	Guarantee of Origin certificates from Ignitis
CO ₂ emission (kg CO ₂ eq. / kWh)	0,0446 kg of CO ₂ eq /kWh (<i>based on Climate Change (fossil) indicator</i>)

Indoor air label

The product has not been tested.

Information related to sector EPD

This is a product specific EPD.

Differences versus previous versions

This is the first version of the EPD.

References

1. EPD International (2021) General Programme Instructions for the International EPD® System. Version 4.0. (2021-03-29)
2. The International EPD System PCR 2019:14 version 1.3.2 Construction products
3. EN 15804:2012 + A2:2019/AC:2021 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
4. ISO 14025:2006: environmental labels and declarations – type III Environmental Declarations Principles and procedure (2009)
5. ISO 14040: Environmental management – Life Cycle Assessment – Principles and framework (2006)

6. ISO 14 044: Environmental management – Life Cycle Assessment – Requirements and guidelines (2006)
7. ISO 14020:2000 Environmental labels and Declarations - General principles
8. EN 998-1:2016 Specification for mortar for masonry Rendering and plastering mortar
9. LCA report, Information for the Environmental Product Declaration of Mortar product by Saint-Gobain Statybos Gaminiai, UAB, May 2024, version 1.3.2