



## ENVIRONMENTAL PRODUCT DECLARATION

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

## Blue Acoustic Moisture Resistant Plasterboard MAI (DFH2) Activ´Air® 12,5 mm



INTERNATIONAL EPD SYSTEM

Version 1

Version date: 2026/05/01

Validity: 5 years

Validity date: 2031/04/30

The International EPD® System

Programme operator: EPD international AB

Registration number:

EPD-IES: [0027537:001]



An EPD may be updated or republished if conditions change. To find the latest version of the EPD and to confirm its validity, see [www.environdec.com](http://www.environdec.com)

EPD Owner: Rigips, Saint-Gobain

## General information

### Programme information

<b>PROGRAMME:</b>	The International EPD® System
<b>ADDRESS:</b>	EPD International AB - Box 210 60 - SE-100 31 Stockholm - Sweden
<b>WEBSITE:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-MAIL:</b>	<a href="mailto:support@environdec.com">support@environdec.com</a>

### PCR information

#### Product Category rules (PCR)

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 2.0.1

**Complementary PCR:** (c-PCR-031), 2024-08-06. c-PCR Gypsum-based construction products

**PCR review was conducted by:** The Technical Committee of the International EPD® System  
See [www.environdec.com](http://www.environdec.com) for a list of members.

**Chairs of the PCR review:** Rob Rouwette (chair), Noa Meron (co-chair).

### Verification

External and independent ('third-party') verification of the declaration and data, according to ISO 14025:2006, via

EPD verification through:

- Individual EPD verification without a pre-verified LCA/EPD tool
- Individual EPD verification with a pre-verified LCA/EPD tool
- EPD process certification\* without a pre-verified LCA/EPD tool
- EPD process certification\* with a pre-verified LCA/EPD tool
- Fully pre-verified EPD tool

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

- EPD verification by individual verifier

**Third party verifier:** Technický a zkušební ústav stavební Praha, s.p.

Prosecká 811/76a, Prague 9, 190 00 - [info@tzus.cz](mailto:info@tzus.cz)


Approved by: Český institut pro akreditaci, o.p.s., Certificate No. 4562024

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

### Ownership and limitations on use of EPD

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

EPDs within the same product category but published 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 first-digit 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 identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterization factors); and be valid at the time of comparison.

<b>CEN standard EN 15804+A2 serves as the core PCR</b>	
Independent verification of the declaration and data, according to EN ISO 14025:2010: <input type="checkbox"/> Internal <input checked="" type="checkbox"/> External	
<b>Third party verifier:</b> Technický a zkušební ústav stavební Praha, s.p. Prosecká 811/76a, Praha 9, 190 00 Czech Republic Certification Body for EPD, accredited by CAI - Czech Accreditation Institute, under No. 456/2024	

## Information about EPD owner

**Address and contact information of the EPD owner:** Saint-Gobain Construction Products CZ, a.s., Rigips, Smrčková 2485/4, 180 00 Prague, Czech Republic

**Description of the organization of the EPD owner:** Manufacturer

**Management system-related certification:** ISO 14001:2015, ISO 50001:2018, ISO 9001:2015

**LCA practitioner:** Ing. arch. Tomáš Truxa (tomas.truxa@saint-gobain.com) and Saint-Gobain LCA central team (joffrey.martin@saint-gobain.com)

**Communication:** The intended use of this EPD is for B2B communication.



## Product information

**Product name:** Blue Acoustic Moisture Resistant Plasterboard MAI (DFH2) Activ´Air® 12,5 mm  
**Visual representation of the product:**



**UN CPC CODE:** 37530 Articles of plaster or of composition based on plaster

**Manufacturing site(s):** Rigips, Horní Počaply 254, 277 03, Czech Republic

## Product description

Blue Acoustic Moisture Resistant Plasterboard MAI (DFH2) Activ´Air® is a gypsum plasterboard type DFH2 according to EN 520.

The board has a special core with higher density and water-repellent additives, which is encased in a blue paper liner. The board provides significantly improved fire protection properties compared to a Standard gypsum plasterboard. There is less shrinkage of the board during a fire, and it sustains its basic properties better due to a higher-density gypsum core reinforced with glass fibres, minerals, and other additives for dimensional stability and improved core cohesion at high temperatures.

The board contains Activ´Air® technology, which improves indoor air quality by removing up to 70% of formaldehyde from the air and converting it into safe, inert compounds that, once trapped in the board, cannot be released back into the air.

The board is designed for use in partition, lining, and ceiling systems where greater levels of airborne sound insulation, fire protection, and improved indoor air quality are required. The boards are also intended for interior applications in areas with intermittent moisture, such as kitchens and bathrooms.

It is available in a 1250 mm width.

For more information: [www.rigips.cz](http://www.rigips.cz)

## Technical data/physical characteristics:

Parameter	Value / Description
EN Classification	EN 520:2004+A1:2009
Reaction to fire	A2-s1, d0
Water vapour resistance factor, $\mu$	10
Thermal conductivity	0,25 W/m*K (EN 520:2004+A1:2009)

Application	Value / Description
Intended use and key functionalities	Designed for partition, lining, and ceiling systems requiring enhanced airborne sound insulation, fire protection, moisture resistance, and improved indoor air quality, with a high-density, water-repellent core and Activ'Air® technology for formaldehyde reduction.
Expected influence on the operational aspects and impact of the building or other construction work	Improves fire performance, acoustic performance, moisture resistance in intermittently humid areas, and indoor air quality within interior spaces.
Restrictions to a type of construction or building	Intended for use only in systems compatible with gypsum plasterboard and available in 1250 mm width.
Lifespan	50 years

## Content declaration

Description of the main components and/or materials:

Quantity for 1 declared unit 12,0 kg of finished product

Product components	Mass (kg)	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Core (gypsum and additives)	>95 %	0 %	0,6 %	0,02 kg C/DU
Liner & facing	1-5 %	2,8 %	2,8 %	0,16 kg C/DU
<b>Sum</b>	<b>12,0 kg</b>	<b>3 %</b>	<b>3 %</b>	<b>0,18 kg C/DU</b>
Packaging materials	Mass (kg)	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit	
Cardboard	0,0005	0,004 %	2,06E-04 kg C/DU	
Wooden pallet	0,3000	2,5 %	0,123 kg C/DU	

## Hazardous substances

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).

## LCA information

<b>TYPE OF EPD</b>	Cradle to grave and module D
<b>DECLARED UNIT</b>	1 m <sup>2</sup> of installed board
<b>CONVERSION FACTOR TO MASS</b>	Density = 12,0 kg/m <sup>2</sup> Thickness = 12,5 mm
<b>SYSTEM BOUNDARIES</b>	Cradle to grave and module D
<b>REFERENCE SERVICE LIFE (RSL)</b>	The Reference Service Life (RSL) of the Gypsum 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.
<b>CUT-OFF RULES</b>	<p>All data is available, no cut-off rules has been applied.</p> <p>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.</p> <p>Flows related to human activities such as employee transport are excluded.</p> <p>The construction of 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.</p>
<b>ALLOCATIONS</b>	<p>Allocation has been avoided when possible and when not possible a mass allocation has been applied.</p> <p>The polluter pays and the modularity principles as well have been followed.</p> <p><b>Allocation of materials for recycling:</b></p> <ul style="list-style-type: none"> <li>- Post-consumer: When a flow enters the manufacturing process (A1-A3), it is treated with waste allocation (as defined in EN15804+A2). All the steps after its "End of Waste" status are quantified. The incoming flow contributes to module D and Secondary Materials indicator.</li> <li>- Pre-consumer: When a flow enters the manufacturing process (A1-A3), it is considered as an incoming coproduct that bears a fraction of the impact of the original manufacturing process where it was generated (which might be 0, e.g. in case of an economic allocation with a negligible (&lt;1%) economic value). The incoming flow does not contribute to module D nor Secondary Materials indicator.</li> </ul>
<b>DATA QUALITY ASSESSMENT</b>	Data quality of primary and secondary data had been judged by its precision (measured, calculated, or estimated), completeness (e.g., unreported emissions), consistency (degree of uniformity of the methodology applied), and representativeness (geographical, technological, and temporal).
<b>GEOGRAPHICAL COVERAGE AND TIME PERIOD</b>	<p>Scope: Czech Republic</p> <p>Data is collected from one production site Rigips - Horní Počaply located in Czech Republic</p> <p>Data collected for the year 2024</p>
<b>BACKGROUND DATA SOURCE</b>	Databases from Sphera CUP2024.2 and ecoinvent v.3.10 EF Package 3.1
<b>SOFTWARE</b>	Sphera LCA for experts 10

## Data quality declaration

Data quality information according to EN 15941	
Data collection	Data collection period 2024-01-01 to 2024-12-31
Sites used	Rigips - Horní Počaply
Geography	Czech Republic
Technology	Gypsum plasterboards are produced by calcining gypsum, mixing the resulting stucco with water and additives, forming the slurry between paper liners, drying the boards at high temperature, and finally resizing, inspecting, and packaging them.
Averaging	100% of production
LCI/LCA database	Sphera CUP2024.2 and ecoinvent v.3.10
EPD used	None
Data Quality Scheme	EN 15804 :2012+A2:2019, Annex E, Table E.2
Use of fair data with more than 30% of a core impact	None
Use of Poor relevant data	None
Use of very poor relevant data	No very poor data used

Process	Source type	Source	Reference year	Data category	A1-A3 GWP-GHG [kg CO2 eq.]
<b>Manufacturing process</b>					
Thermal energy	Database	Sphera 2024.2	<5 years old	Primary data	60,1%
Electricity	Database	Sphera 2024.2 /ecoinvent 3.10	<5 years old	Primary data	0,1%
<b>Total share of primary data</b>					<b>60,2 %</b>

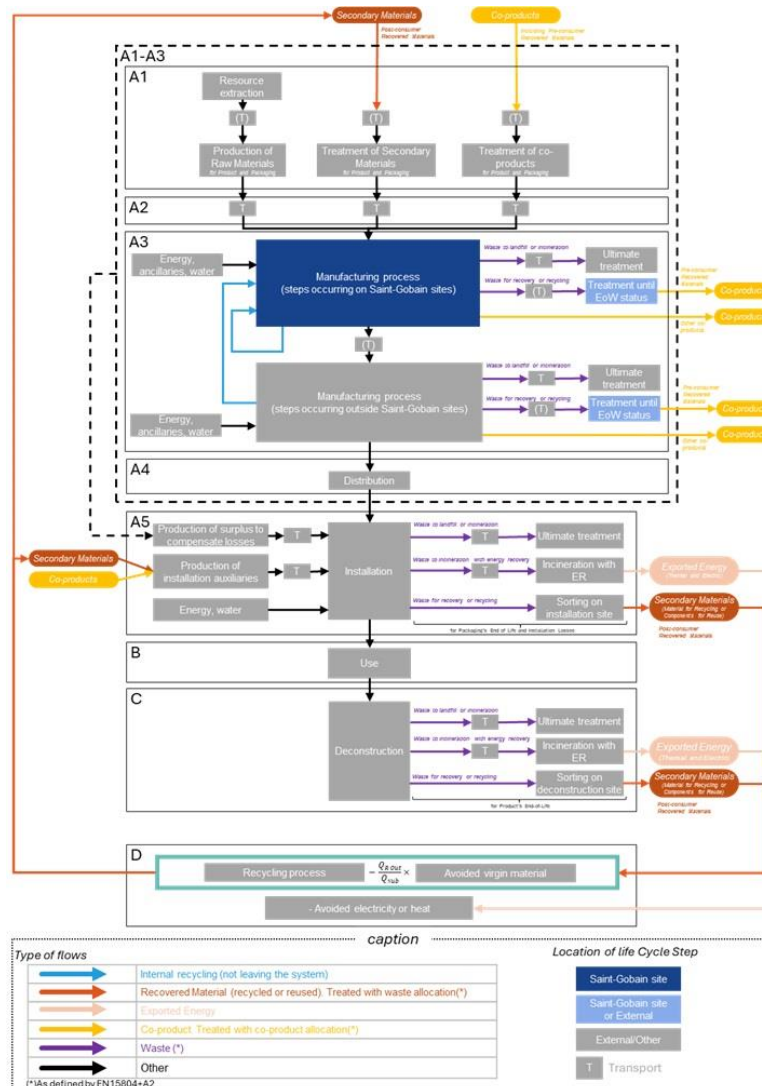
A1-A3 GWP-GHG	3,31E+00
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# Description of system boundaries

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	
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	CZ	CZ	CZ	CZ	CZ	-	-	-	-	-	-	-	CZ	CZ	CZ	CZ	CZ

System boundaries when the end-of-waste state is reached:



# Life cycle stages

## 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.

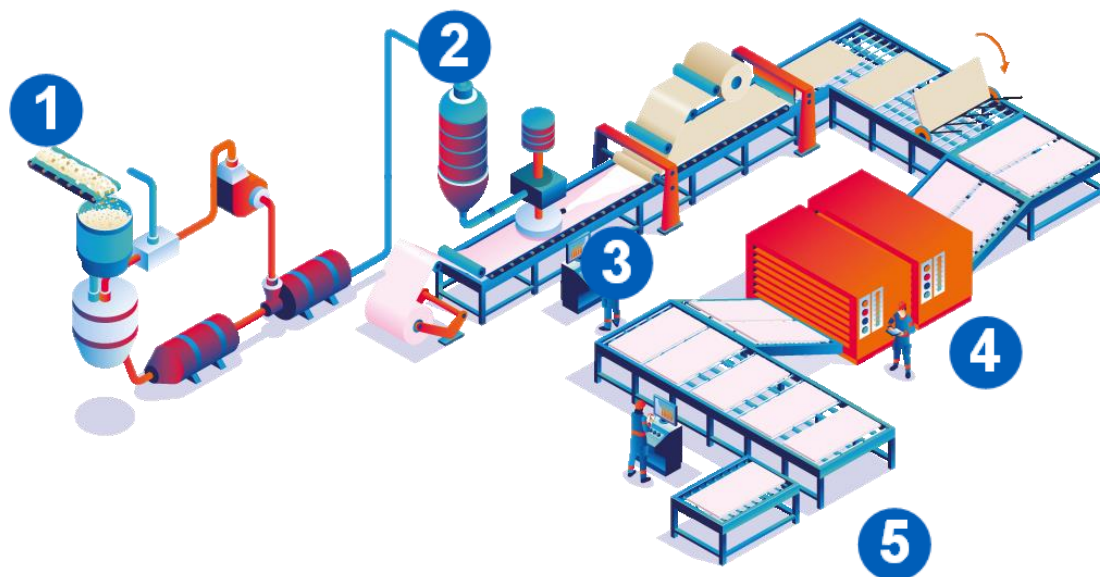
### A2. Transport to the manufacturer

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.

## Manufacturing process flow diagram



1. **Calcination.** Gypsum is ground then **heated to 160°C to be dehydrated**. The powder obtained (stucco), stored in silos, feeds the production of plasterboard.
2. **Mixing.** The stucco powder is mixed with **water and additives to obtain a slurry**. The dosages are adjusted according to the desired properties of the finished product, such as fire resistance.
3. **Forming.** The slurry is **spread on a paper liner** as a support, then a second paper liner is placed on the top. After a quick setting, the boards are **precut**.
4. **Drying.** The boards pass through a dryer where the temperature can reach up to 300°C. The evaporation of excess water **strengthens the cohesion of the gypsum** to the paper liner.
5. **Finishing and packaging.** The plasterboards are **resized, inspected, then packed** before being stored by AGVs.

## 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 / Description
<b>Fuel type and consumption of vehicle or vehicle type used for transport e.g., long-distance truck, boat, etc.</b>	Freight truck, maximum load weight of 27 t, real load is 24 t and consumption of 0.38 liters per km
<b>Distance</b>	130 km
<b>Capacity utilisation (including empty returns)</b>	68% (30% empty returns)
<b>Bulk density of transported products</b>	960 kg/m <sup>3</sup>
<b>Volume capacity utilisation factor</b>	1 (by default)

### A5. Installation in the building

This module includes: the installation of the product, the surplus of raw materials and packaging (cradle to gate) to compensate for the loss of product during the installation, the transport and management of packaging and product waste.

Parameter	Value / Description
<b>Ancillary materials for installation (specified by materials)</b>	Jointing compound: 0,330 kg/m <sup>2</sup> Jointing tape: 1,23 m/m <sup>2</sup> board (0,004 kg/m <sup>2</sup> ) Screws: 8 units/m <sup>2</sup> board (0,010 kg/m <sup>2</sup> )
<b>Water for on-site mixing of jointing compound</b>	0,166 liters/m <sup>2</sup>
<b>Other resource use</b>	None
<b>Electricity for on-site mixing of jointing compound</b>	0 MJ/m <sup>2</sup>
<b>Scrap rate at installation</b>	5% for plasterboard and for ancillary materials 100% for packaging
<b>Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)</b>	Plasterboard: 0,60 kg/m <sup>2</sup> Jointing Compound: 0,0165 kg/m <sup>2</sup> Jointing Tape: 0,0002 kg/m <sup>2</sup> Carboard: 0,0005 kg/m <sup>2</sup> Pallet: 0,3000 kg/m <sup>2</sup>
<b>Transport of packaging waste</b>	Landfill: 80 km
<b>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)</b>	Plasterboard: <ul style="list-style-type: none"> <li>• 100% landfilled</li> <li>• 0% recycled</li> </ul> Ancillaries: 100% landfilled Packaging: <ul style="list-style-type: none"> <li>• Carboard: 100% landfilled</li> <li>• Pallet: 100% landfilled</li> </ul>
<b>Direct emissions to ambient air, soil, and water</b>	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

The product has a reference service life of 50 years. This assumes that the product will last in situ with no requirements for maintenance, repair, replacement, or refurbishment throughout this period. Therefore, it has no impact at this stage.

## 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 entire building. The energy considered for demolition is 0,045 MJ/m<sup>2</sup>.
- **C2: Transport to waste processing**
- **C3: Waste processing for reuse, recovery and/or recycling**
- **C4: Waste disposal,** including physical pre-treatment and site management.

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

Parameter	Value / Description
<b>Collection process specified by type</b>	100 % of plasterboard including paper liner is collected with mixed deconstruction and demolition waste. Other deconstruction waste, such as ancillaries used for installation, is 100% collected with mixed deconstruction and demolition waste for landfill.
<b>Recovery system specified by type</b>	0 kg recycled
<b>Disposal specified by type</b>	12,0 kg to landfill
<b>Assumptions for scenario development (e.g. transportation)</b>	The waste will be transported by truck with 24 t payload, using diesel as a fuel consuming 38 liters per 100 km Transport distance to landfill: 80 km

## D. Reuse/recovery/recycling potential

In the module D is declared the environmental benefits and loads from reusable products, recyclable materials, or energy recovery. Module D considers:

- Inputs of secondary materials: recycled raw materials for product and packaging (pre- and post-consumer),
- Outputs of secondary materials: product and/or packaging sent to recycling,
- Exported energy (electric or thermal): product and/or packaging sent to incineration with energy recovery.

## Environmental performance

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 based on EF 3.1. Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plant.

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.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

**Disclaimer 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 following indicators:

- Resource use, mineral and metals [kg Sb eq.]
- Resource use, energy carriers [MJ]
- Water deprivation potential [m<sup>3</sup> world equiv.]
- Land use [Pt]
- Human toxicity (cancer) [CTUh]
- Human toxicity(noncancer) [CTUh]
- Ecotoxicity (freshwater) [CTUe]

**Disclaimer 2:** The impact category Ionizing radiation, human health [kBq U235 eq.] deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction material is also not measured by this indicator.








**Disclaimer 3:** The assumptions for the modules are in accordance with the project report (LCA study).

The following non-mandatory additional environmental 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]
- Land Use [Pt].











Results refer to a declared unit of 1m<sup>2</sup> of installed gypsum board 12,5 mm with a weight of 12,0 kg/m<sup>2</sup>. The following results refer to a single product manufactured in a single plant.

# Environmental Impacts

		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	
	Climate Change [kg CO2 eq.]	2,32E+00	1,22E-01	6,93E-01	0	0	0	0	0	0	0	5,57E-02	7,77E-02	0,00E+00	1,06E+00	-4,86E-02
	Climate Change (fossil) [kg CO2 eq.]	3,28E+00	1,20E-01	2,26E-01	0	0	0	0	0	0	0	5,57E-02	7,62E-02	0,00E+00	1,13E-01	-5,11E-02
	Climate Change (biogenic) [kg CO2 eq.]	-9,80E-01	3,31E-04	4,66E-01	0	0	0	0	0	0	0	4,49E-06	2,10E-04	0,00E+00	9,44E-01	1,91E-03
	Climate Change (land use change) [kg CO2 eq.]	2,02E-02	1,99E-03	1,26E-03	0	0	0	0	0	0	0	4,83E-06	1,26E-03	0,00E+00	2,15E-04	5,98E-04
	Ozone depletion [kg CFC-11 eq.]	2,31E-05	1,19E-14	1,16E-06	0	0	0	0	0	0	0	8,52E-10	7,56E-15	0,00E+00	1,88E-09	3,89E-09
	Acidification terrestrial and freshwater [Mole of H+ eq.]	6,10E-03	1,33E-04	4,85E-04	0	0	0	0	0	0	0	5,02E-04	8,56E-05	0,00E+00	7,51E-04	5,13E-04
	Eutrophication freshwater [kg P eq.]	2,93E-05	5,05E-07	3,49E-06	0	0	0	0	0	0	0	1,96E-07	3,20E-07	0,00E+00	3,41E-06	1,24E-05
	Eutrophication marine [kg N eq.]	1,71E-03	4,37E-05	1,45E-04	0	0	0	0	0	0	0	2,33E-04	2,85E-05	0,00E+00	2,91E-04	1,08E-04
	Eutrophication terrestrial [Mole of N eq.]	1,68E-02	5,33E-04	1,39E-03	0	0	0	0	0	0	0	2,55E-03	3,47E-04	0,00E+00	2,84E-03	9,80E-04
	Photochemical ozone formation - human health [kg NMVOC eq.]	4,89E-03	1,24E-04	4,17E-04	0	0	0	0	0	0	0	7,61E-04	8,00E-05	0,00E+00	1,09E-03	6,52E-04
	Resource use, mineral and metals [kg Sb eq.] <sup>1</sup>	3,55E-06	1,01E-08	8,66E-07	0	0	0	0	0	0	0	1,99E-08	6,39E-09	0,00E+00	1,05E-07	7,15E-07
	Resource use, energy carriers [MJ] <sup>1</sup>	5,43E+01	1,54E+00	3,54E+00	0	0	0	0	0	0	0	7,21E-01	9,79E-01	0,00E+00	2,26E+00	-2,43E-01
	Water deprivation potential [m³ world equiv.] <sup>1</sup>	5,45E-01	1,76E-03	6,27E-02	0	0	0	0	0	0	0	2,24E-03	1,12E-03	0,00E+00	7,59E-02	1,11E-01









<sup>1</sup> 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

## Resource Use


Resources Use 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
 Use of renewable primary energy (PERE) [MJ] <sup>2</sup>	8,12E+00	1,31E-01	4,80E+00	0	0	0	0	0	0	0	4,47E-03	8,28E-02	0,00E+00	1,06E-01	3,67E+00
 Primary energy resources used as raw materials (PERM) [MJ] <sup>2</sup>	1,03E+01	0,00E+00	-3,61E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Total use of renewable primary energy resources (PERT) [MJ] <sup>2</sup>	1,85E+01	1,31E-01	1,20E+00	0	0	0	0	0	0	0	4,47E-03	8,28E-02	0,00E+00	1,06E-01	3,67E+00
 Use of non-renewable primary energy (PENRE) [MJ] <sup>2</sup>	5,37E+01	1,54E+00	3,51E+00	0	0	0	0	0	0	0	7,21E-01	9,79E-01	0,00E+00	2,26E+00	-4,85E-01
 Non-renewable primary energy resources used as raw materials (PENRM) [MJ] <sup>2</sup>	5,49E-01	0,00E+00	4,16E-02	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Total use of non-renewable primary energy resources (PENRT) [MJ] <sup>2</sup>	5,43E+01	1,54E+00	3,55E+00	0	0	0	0	0	0	0	7,21E-01	9,79E-01	0,00E+00	2,26E+00	-4,85E-01
 Use of secondary material (SM) [kg]	3,42E-01	0,00E+00	1,71E-02	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Use of renewable secondary fuels (RSF) [MJ]	1,17E-24	0,00E+00	5,83E-26	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Use of non-renewable secondary fuels (NRSF) [MJ]	1,36856E-23	0	6,8428E-25	0	0	0	0	0	0	0	0	0	0	0	0
 Use of net fresh water (FW) [m <sup>3</sup> ]	1,49E-02	1,47E-04	1,63E-03	0	0	0	0	0	0	0	5,21E-05	9,30E-05	0,00E+00	1,80E-03	1,81E-03

<sup>2</sup> From EPD International Construction Product PCR 2.0 (Annex 3). The option B was retained to calculate the primary energy use indicators.



## Waste Category & Output flows

Waste Category & Output Flows	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
 Hazardous waste disposed (HWD) [kg]	1,69E-01	5,00E-11	1,07E-02	0	0	0	0	0	0	0	6,30E-04	3,17E-11	0,00E+00	4,52E-02	2,03E-02
 Non-hazardous waste disposed (NHWD) [kg]	6,14E-01	2,40E-04	6,75E-01	0	0	0	0	0	0	0	4,87E-03	1,52E-04	0,00E+00	1,23E+01	2,12E-01
 Radioactive waste disposed (RWD) [kg]	1,97E-03	2,00E-06	1,08E-04	0	0	0	0	0	0	0	8,00E-08	1,27E-06	0,00E+00	7,85E-06	-1,44E-04
 Components for re-use (CRU) [kg]	0,00E+00	0,00E+00	2,76E-01	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Materials for Recycling (MFR) [kg]	0	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Material for Energy Recovery (MER) [kg]	0	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Exported electrical energy (EEE) [MJ]	0	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
 Exported thermal energy (EET) [MJ]	0	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

## Additional voluntary indicators from EN 15804

	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
 GWP-GHG [kg CO2 eq.] <sup>3</sup>	3,31E+00	1,22E-01	2,47E-01	0	0	0	0	0	0	0	5,57E-02	7,77E-02	0,00E+00	4,43E-01	-9,72E-02

### Information on biogenic carbon content

		PRODUCT STAGE
<b>Biogenic Carbon Content</b>		<b>A1 / A2 / A3</b>
 Biogenic carbon content in product [kg]		1,48E-01
 Biogenic carbon content in packaging [kg]		1,21E-01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>. The product contains biogenic carbon due to the additives and paper liner used. Regarding packaging, biogenic carbon is quantified due to wooden pallets production.

<sup>3</sup> 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.

## Additional environmental information:

### Electricity information

The factory based in Horní Počaply located in Czech Republic uses electricity with Guarantee of Origin certificate (GO).

Hence, the electricity mix considered for the manufacturing of the studied product is modelled according to the electricity mix described in the Guarantee of Origin certificate. The amount of electricity purchased with GO's covers 100 % of the electricity consumption on the manufacturing site.

Type of information	Description
<b>Location</b>	Representative of the guarantee of origin purchased by Saint-Gobain
<b>Share of electricity covered by Guarantee of Origin</b>	100 % of the energy consumption is covered by the GO
<b>Dataset version</b>	Sphera CUP2024.2 ecoinvent 3.10 (medium voltage)
<b>Type of dataset</b>	Cradle to gate from Sphera and ecoinvent databases
<b>Source of electricity mix</b>	Cradle to gate from Gabi and ecoinvent databases Guarantee of Origin certificate: ČEZ ESKO, reg. number: 004722024
<b>GHG-GWP CO<sub>2</sub> eq.</b>	0,0047 kg of CO <sub>2</sub> eq/kWh

An EPD is valid for 5 years. Therefore, the GO will be prolonged continuously to be valid for the whole validity of the EPD. If not prolonged, the EPD will be updated.

## Other additional environmental information

### Saint-Gobain long-term goals 2030 and 2050

Saint-Gobain provides customers with products and solutions for sustainable and comfortable living. We recognize that sustainability is becoming a key factor not only in our operations but also for our shared future, and we have made several ambitious commitments to further improve the sustainability of our activities. By 2030, we have committed to reducing our impact compared to 2017, specifically in the areas of water consumption and CO<sub>2</sub> emissions in Scope 1 and Scope 2 (i.e., emissions originating mainly from manufacturing operations and energy consumption) as well as Scope 3, which includes emissions from raw materials and transportation. We have also committed to supporting the principles of the circular economy, in particular by reducing the amount of waste generated and increasing the share of recycled content. Last but not least, we aim to have our product portfolio covered by Environmental Product Declarations. All these steps are aimed at achieving carbon neutrality by 2050.



## Circular economy

At Saint-Gobain, we are committed to the principles of the circular economy because we know that a responsible approach to materials is the path to a sustainable future. We recycle, reuse internal production waste, and actively incorporate secondary raw materials into the manufacture of new Saint-Gobain products. This not only conserves natural resources but also reduces the amount of waste that would otherwise end up in landfills. This approach allows us to offer our customers responsible, environmentally friendly solutions—without compromising on quality.

Type of production	Circular initiatives
Stone wool production	<ul style="list-style-type: none"> <li>Up to a quarter of the batch consists of blast-furnace slag from the metallurgical industry.</li> <li>Almost 100% of stone wool production offcuts are recycled directly back into the process.</li> </ul>
Glass wool production	<ul style="list-style-type: none"> <li>Recycled and waste glass is used in the production of glass wool.</li> <li>Our glass wool contains more than 50% post-consumer glass, reducing energy consumption during production.</li> </ul>
EPS production	<ul style="list-style-type: none"> <li>Isover offers an EPS recycling service.<sup>1)</sup></li> <li>Collected EPS is shredded and returned to the production process.</li> <li>Recycling reduces the use of virgin raw materials and therefore lowers environmental impact.</li> </ul>
Plasterboard production	<ul style="list-style-type: none"> <li>Rigips offers a recycling service for plasterboard offcuts from construction sites.<sup>2)</sup></li> <li>Reclaimed plasterboard is crushed and returned to the production process.</li> <li>This helps reduce the volume of construction waste sent to landfills.</li> </ul>

1) For more information: <https://www.isover.cz/recyklace-expandovaneho-polystyrenu>

2) For more information: <https://www.rigips.cz/udrzitelnost/>

## The importance of data - where to find it

Sustainability is now an integral part of the construction industry in the Czech Republic. The implementation of EU directives, building certification schemes, the EU Taxonomy, and rising waste-disposal costs are drivers that require the gradual innovation of processes and materials. Alongside changes in technology, legislation, and the materials used, there is also a clear need for accurate and relevant data to be available in real time.

Anyone who wants to address environmental sustainability today should understand the environmental impacts of individual activities, materials, and technologies. An EPD (Environmental Product Declaration) is used to objectively assess the environmental impacts of a specific product. It describes these impacts based on verified, measurable data. A product cannot be credibly presented as sustainable without adequate supporting documentation.

## Additional social and economic information

No additional information displayed.

## Abbreviations

AIB	Association of issuing bodies
DU	Declared unit
EPD	Environmental Product Declaration
eq.	Equivalents
FU	Functional unit
g	Gram
GJ	Giga Joules (as Net Calorific Value)
GWP-GHG	Global Warming Potential - Greenhouse gas
IOBC	Instantaneous Oxidation of Biogenic Carbon
EF	Environmental Footprint
GO's	Guarantee of origin
kg	Kilogram
kWh	Kilowatt-hour
L	Liter
LCA	Life Cycle Assessment
LCI	Life Cycle Inventory Analysis
LCIA	Life Cycle Impact Assessment
MJ	Mega Joules (as Net Calorific Value)
PCR	Product Category Rules
RSL	Reference Service Life (in years)
ton	Metric ton

## References

1. ISO 14040:2006 Environmental Management-Life Cycle Assessment-Principles and framework.
2. ISO 14044:2006 Environmental Management-Life Cycle Assessment-Requirements and guidelines.
3. EN 15804:2012+A1:2013 - Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
4. EN 15804:2012+A2:2019/AC:2021 - Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
5. EPD International. General Program Instructions (GPI) for the International EPD® System (version 5.0.1) [www.environdec.com](http://www.environdec.com).
6. The International EPD System PCR 2019:14 Construction products and Construction services. Version 2.0.1
7. EN 15941 Sustainability of construction works - Data quality for environmental assessment of products and construction work - Selection and use of data
8. c-PCR Gypsum-based construction products (EN 17328) (c-PCR-031 version: 2024-08-06)
9. European Chemical Agency, Candidate List of substances of very high concern for Authorization. <https://echa.europa.eu/candidate-list-table>
10. LCA report Rigips – Horní Počaply 2024