



# ENVIRONMENTAL PRODUCT DECLARATION

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

## Gyproc® GSE 6 – Remonttilevy



THE INTERNATIONAL EPD® SYSTEM

The International EPD®

Programme operator: EPD international AB

Registration number: EPD-IES-0019725

**Version: 1**

**Date of publication: 2025/02/10**

**Validity: 5 years**

**Valid until: 2030/02/09**

**Scope of the EPD®: Finland and other  
Nordic and Baltic countries**



## Programme information

<b>Programme:</b>	The International EPD®
<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:info@environdec.com">info@environdec.com</a>

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®  
See [www.environdec.com](http://www.environdec.com) for a list of members.

**An independent third part verification of the declaration and data was made according to ISO 14025:2006.** This verification was external and conducted by the following third party based on the PCR mentioned above.

EPD process certification     EPD verification

**Third party verifier:** Martin Erlandsson IVL Svenska Miljöinstitutet  
[martin.erlandsson@ivl.se](mailto:martin.erlandsson@ivl.se)  
Approved by: The International EPD®



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

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

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 characterization 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

**Product name:** Gyproc® GSE 6 – Remonttilevy

**Declared unit:** 1 m<sup>2</sup> of installed plasterboard of 6,5 mm with a weight of 5,6 kg/m<sup>2</sup>.

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

**Main GTIN number:** Per board: 5905637208599

## Company information

**Manufacturer:** Saint-Gobain Gyproc, Ojangontie 23, PL 44 02401Kirkkonummi, Finland Oy

**Website:** <https://www.gyproc.fi/>

**Production plant(s):** Gyproc Kirkkonummi, Finland Oy

**Product- and Management system-related certification:** ISO 9001 and 14001 (Certificate No.: EUFI29- 23001898-S1/EN and EUFI29- 23001898-S2)

## LCA & EPD Information

**Owner of the declaration:** Gyproc Finland Oy

**Contact person:** Anne Kaiser ([anne.kaiser@saint-gobain.com](mailto:anne.kaiser@saint-gobain.com))

**EPD® prepared by:** Malin Dalborg ([malin.dalborg@saint-gobain.com](mailto:malin.dalborg@saint-gobain.com))

**Type of EPD:** Cradle to gate with options, including all stages A+B+C+D

**Geographical scope of the EPD®:** Finland and other Nordic and Baltic countries

**Year of data collection:** 2023



## Product description

### Product description and description of use

This Environmental Product Declaration (EPD®) describes the environmental impacts of 1 m<sup>2</sup> installed Gyproc® GSE 6 – Remonttilevy and an expected average service life of 50 years.

Gyproc® GSE 6 – Remonttilevy is a durable and easy-to-work renovation board, which has been developed especially for interior repairings. The board is made up of a gypsum core (a blend of recycled gypsum and natural gypsum) with additives and paper liner. The surface of the board is smooth and even. The board is available with tapered edge. Tapered edge enables an easy jointing or plaster skim finish. Gyproc® GSE 6 – Remonttilevy is a specific product produced at one specific plant, Gyproc Kirkkonummi located in Finland. The data is collected at Gyproc Kirkkonummi and is representative of the year 2023.

To calculate the result for 1 kg of Gyproc® GSE 6 – Remonttilevy, divide the result with the weight of the plasterboard: 5,6 kg/m<sup>2</sup> (conversion factor 1/5,6 = 0,18)

### Product specifications

Product components	Value / Description
Weight of 1 m <sup>2</sup> plasterboard	5,6 kg
Thickness	6,5 mm
Width	900 mm
Surfacing	Paper liner: 0,30 kg/m <sup>2</sup>
Packaging material	Wooden pallet: 0,06 kg/m <sup>2</sup> PE film: 0,078 kg/m <sup>2</sup> PP stripes: 0,0002kg/m <sup>2</sup>
Products used for installation	Jointing compounds: 0,33 kg/m <sup>2</sup> Jointing tape: 1,23 m/m <sup>2</sup> Screws: 8 per m <sup>2</sup> plasterboard

### Technical data

Parameter	Value / Description
EN Classification	D-6,5 (EN 520:2004+A1:2009)
Reaction to fire	A2-s1, d0 (EN 520:2004+A1:2009)
Water vapour resistance factor, $\mu$	< 0,10 (EN 10456:2007)
Thermal conductivity	0,21 W/mK (EN 10456:2007)

## Declaration of the main product components and/or materials

Description of the main components and/or materials:

Product components	Weight (%)	Post-consumer recycled material weight (%)	Weight biogenic material, (kg C/DU)
Gypsum Natural	70 – 80%	0%	0 kg
Gypsum Recycled	20 – 30%	100%	0 kg
Additives	1 – 5%	0%	0,010 kg
Liners	6 - 10%	100%	0,130 kg
<b>Sum</b>	<b>100%</b>		<b>0,140 kg</b>
Packaging materials	Weight (kg/DU)	Weight versus the product and packaging (%)	Weight biogenic carbon, (kg C/DU)
PE film	0,078 kg	0,042%	0 kg
PP stripes	0,0002 kg	0,003%	0 kg
Wooden pallet (one pallet used one time)	0,06 kg	1,182%	0,024 kg
<b>Sum</b>	<b>0,138 kg</b>	<b>1,227%</b>	<b>0,024 kg</b>

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).

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

## LCA calculation information

Parameter	Value / description
<b>TYPE OF EPD</b>	Cradle to gate with options, including all stages A+B+C+D (one product, one manufacturing site)
<b>DECLARED UNIT</b>	1 m <sup>2</sup> of installed plasterboard of 6,5 mm with a weight of 5,6 kg/m <sup>2</sup> .
<b>SYSTEM BOUNDARIES</b>	Cradle to gate with options, including all stages A+B+C+D
<b>REFERENCE SERVICE LIFE (RSL)</b>	The Reference Service Life (RSL) of the plasterboard 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>In the case 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>	Allocation in the manufacturing site (A3) is based on mass. The polluter pays and the modularity principles as well have been followed.
<b>GEOGRAPHICAL COVERAGE AND TIME PERIOD</b>	<p>Scope: Finland</p> <p>Data is collected from one production site, Kirkkonummi, located in Finland</p> <p>Data collected for the year 2023</p>
<b>BACKGROUND DATA SOURCE</b>	The databases Sphera 2023.2 and ecoinvent v.3.9.1
<b>SOFTWARE</b>	Sphera LCA for experts (GaBi) 10.7

## 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	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-recovery
<b>Module</b>	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
<b>Modules declared</b>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Geography</b>	GLO	GLO	FI	FI	FI	-	-	-	-	-	-	-	FI	FI	FI	FI	FI
<b>Specific data used</b>	>66,6% GWP- Fossil																
<b>Variation products</b>	0%, One site one product																
<b>Variation sites</b>	0%, One site one product																

## Life cycle stages



## A1-A3. Product stage

The product stage of plasterboard products is subdivided into 3 modules A1, A2 and A3:

### A1. Raw materials supply

This module includes the extraction and processing of all raw materials (gypsum, additives, paper...) and packaging which occur upstream to the manufacturing site.

### A2. Transport to the manufacturer

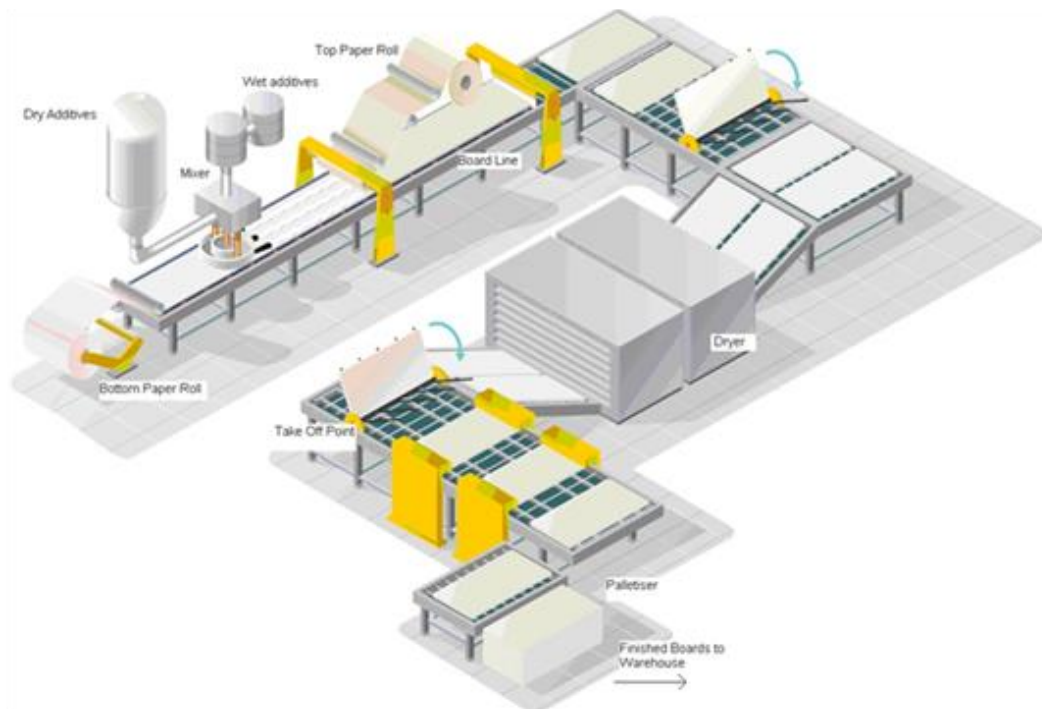
This module includes the transportation of raw materials and packaging to the manufacturing site.

### A3. Manufacturing

This module includes the manufacturing of products. The processing of any waste arising from this stage is also included.

## Manufacturing process flow diagram

System diagram:



### Manufacturing in detail:

The initial materials are homogeneously mixed to form a gypsum slurry that is spread via multiple hose outlets onto a paper liner on a moving conveyor belt. A second paper liner is fed onto the production line from above to form the plasterboard. The plasterboard continues along the production line where it is finished, dried, and cut to size.

## 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 and consumption of 0,38 liters diesel per km. Real 24 t payload
<b>Distance<sup>1</sup></b>	205 km by truck
<b>Capacity utilization (including empty returns)</b>	68 % of the capacity in weight 30 % of empty returns
<b>Bulk density of transported products</b>	862 kg/m <sup>3</sup>
<b>Volume capacity utilization factor</b>	< 1

<sup>1</sup>Result for transport to other Nordic and Baltic counties, see Additional information.

## 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.

Parameter	Value / Description
<b>Ancillary materials for installation (specified by materials)</b>	Jointing compound: 0,33 kg/m <sup>2</sup> plasterboard Jointing tape: 1,23 m/m <sup>2</sup> plasterboard Screws: 8 per m <sup>2</sup> plasterboard
<b>Water for on-site mixing of jointing compound</b>	0,165 liters/m <sup>2</sup> plasterboard (added to the jointing compound during installation)
<b>Electricity for on-site mixing of jointing compound</b>	0,001 MJ/m <sup>2</sup> plasterboard
<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: 0,28 kg (5% scrap rate) Jointing Compound: 0,0165 kg (5% scrap rate) Jointing Tape: 0,0002 kg (5% scrap rate) Screws: 0,0005 kg (5% scrap rate) Wooden pallet: 0,06 kg (100% scrape rate) PE and others: 0,078 kg (100% scrape rate)
<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: 0,28 kg to 52% recycling, 48% landfill Jointing Compound: 0,0165 kg to 53% recycling, 6% energy recovery 41 % landfill Jointing Tape: 0,0002 kg to 53% recycling, 6% energy recovery 41 % landfill Screws: 0,0005 kg 100% landfill Wooden pallet: 0,06 kg to 53% recycling, 6% energy recovery 41% landfill PE and others: 0,078 kg to 53% recycling, 6% energy recovery 41% landfill
<b>Use of pallet</b>	Re-used 7 times before End-of-life
<b>Distance to waste treatment facilities</b>	50 km by truck

## 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 the entire building.

**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	Information
<b>C1: Energy for de-construction / demolition</b>	0,045 MJ/kg diesel
<b>C1: Collection process specified by type</b>	6,30 kg of plasterboard including paper liner and ancillary materials used for installation is collected with mixed deconstruction and demolition waste. Part of water from jointing compound in A5 is also included. 52% recycling 48% landfill Other deconstruction waste, such as screws, is 100% collected with mixed deconstruction and demolition waste for landfill
<b>C2: 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 Distance to waste treatment facilities 50 km
<b>C3: Recovery system specified by type</b>	3,06 kg recycled
<b>C4: Disposal specified by type</b>	3,24 kg to landfill

## D. Reuse/recovery/recycling potential

In end of life recycling 52% (48% of wastes are landfilled) has been assumed using local demolition waste data and adjusted considering the recyclability of the product.

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
- Outputs of secondary materials: product and/or packaging sent to recycling,
- Exported energy (electric or thermal): packaging sent to incineration with energy recovery.

## 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 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.








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.

Since this EPD includes module C, we strongly advise not to use the results of modules A1-A3 without considering the results of module C.











Results refer to a declared unit of 1m<sup>2</sup> of installed plasterboard 6,5 mm with a weight of 5,6 kg/m<sup>2</sup>. The following results refer to a single product manufactured in a single plant: Gyproc Kirkkonummi, Finland Oy.

## 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	C4 Disposal
	Climate Change (total) [kg CO <sub>2</sub> eq.]	8,72E-01	8,75E-02	2,48E-01	0	0	0	0	0	0	0	2,82E-02	2,27E-02	2,85E-01	4,90E-01	-6,74E-02
	Climate Change (fossil) [kg CO <sub>2</sub> eq.]	1,47E+00	8,64E-02	1,64E-01	0	0	0	0	0	0	0	2,82E-02	2,24E-02	2,27E-02	2,41E-02	-7,13E-02
	Climate Change (biogenic) [kg CO <sub>2</sub> eq.]	-5,98E-01	2,25E-04	8,36E-02	0	0	0	0	0	0	0	3,56E-06	5,83E-05	2,62E-01	4,66E-01	3,36E-03
	Climate Change (land use change) [kg CO <sub>2</sub> eq.]	1,49E-03	7,99E-04	1,89E-04	0	0	0	0	0	0	0	3,18E-06	2,07E-04	9,69E-06	2,98E-05	5,44E-04
	Ozone depletion [kg CFC-11 eq.]	3,07E-09	7,56E-15	3,86E-10	0	0	0	0	0	0	0	4,49E-10	1,96E-15	4,09E-10	5,13E-10	2,58E-09
	Acidification terrestrial and freshwater [Mole of H <sup>+</sup> eq.]	3,59E-03	9,76E-05	3,83E-04	0	0	0	0	0	0	0	2,62E-04	2,57E-05	1,13E-04	1,95E-04	2,99E-04
	Eutrophication freshwater [kg P eq.]	6,09E-05	3,15E-07	8,44E-06	0	0	0	0	0	0	0	8,67E-07	8,15E-08	2,57E-06	1,52E-06	1,24E-04
	Eutrophication marine [kg N eq.]	1,36E-03	3,33E-05	1,64E-04	0	0	0	0	0	0	0	1,21E-04	8,87E-06	4,56E-05	3,41E-04	1,78E-04
	Eutrophication terrestrial [Mole of N eq.]	1,38E-02	3,94E-04	1,29E-03	0	0	0	0	0	0	0	1,32E-03	1,05E-04	4,59E-04	6,88E-04	1,08E-03
	Photochemical ozone formation - human health [kg NMVOC eq.]	3,91E-03	8,47E-05	3,84E-04	0	0	0	0	0	0	0	3,91E-04	2,24E-05	1,63E-04	3,21E-04	2,03E-04
	Resource use, mineral and metals [kg Sb eq.] <sup>1</sup>	9,91E-07	5,61E-09	8,41E-07	0	0	0	0	0	0	0	9,86E-09	1,45E-09	1,24E-07	3,32E-08	1,39E-07
	Resource use, energy carriers [MJ] <sup>2</sup>	2,70E+01	1,17E+00	2,20E+00	0	0	0	0	0	0	0	3,69E-01	3,04E-01	3,23E-01	5,28E-01	-2,84E+00
	Water deprivation potential [m <sup>3</sup> world equiv.] <sup>2</sup>	3,86E-01	9,95E-04	7,30E-02	0	0	0	0	0	0	0	1,25E-03	2,58E-04	7,75E-03	2,17E-02	8,16E-03









<sup>1</sup> Disclaimer 2: 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>	1,00E+01	8,31E-02	1,50E+00	0	0	0	0	0	0	0	2,11E-03	2,15E-02	4,45E-02	2,46E-02	9,00E-01
 Use of renewable primary energy resources used as raw materials (PERM) [MJ] <sup>3</sup>	6,07E+00	0	-6,40E-01	0	0	0	0	0	0	0	0	0	2,73E+00	0	0
 Total use of renewable primary energy resources (PERT) [MJ] <sup>3</sup>	1,58E+01	8,31E-02	8,47E-01	0	0	0	0	0	0	0	2,11E-03	2,15E-02	2,68E+00	2,46E-02	9,00E-01
 Use of non-renewable primary energy (PENRE) [MJ] <sup>3</sup>	2,31E+01	1,18E+00	2,02E+00	0	0	0	0	0	0	0	3,69E-01	3,05E-01	3,23E-01	5,28E-01	-2,85E+00
 Non-renewable primary energy resources used as raw materials (PENRM) [MJ] <sup>3</sup>	3,84E+00	0	-1,78E+00	0	0	0	0	0	0	0	0	0	-8,82E-03	0	0
 Total use of non-renewable primary energy resources (PENRT) [MJ] <sup>3</sup>	2,70E+01	1,177	2,45E-01	0	0	0	0	0	0	0	3,69E-01	3,05E-01	3,14E-01	5,29E-01	-2,84E+00
 Input of secondary material (SM) [kg]	1,09E+00	0	5,14E-02	0	0	0	0	0	0	0	0	0	0	0	0
 Use of renewable secondary fuels (RSF) [MJ]	7,78E-25	0	3,66E-26	0	0	0	0	0	0	0	0	0	0	0	0
 Use of non-renewable secondary fuels (NRSF) [MJ]	9,14E-24	0	4,3E-25	0	0	0	0	0	0	0	0	0	0	0	0
 Use of net fresh water (FW) [m <sup>3</sup> ]	1,20E-02	9,15E-05	1,91E-03	0	0	0	0	0	0	0	2,90E-05	2,37E-05	1,81E-04	5,10E-04	-1,31E-03

<sup>2</sup> From EPD International Construction Product PCR 1.3.2 (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]	1,54E-04	4,35E-12	8,11E-06	0	0	0	0	0	0	0	2,49E-06	1,13E-12	1,79E-06	2,29E-06	4,60E-06
 Non-hazardous waste disposed (NHWD) [kg]	6,33E-02	1,70E-04	2,04E-01	0	0	0	0	0	0	0	2,28E-03	4,39E-05	1,86E-02	3,24E+00	4,55E-02
 Radioactive waste disposed (RWD) [kg]	1,25E-04	1,52E-06	1,66E-05	0	0	0	0	0	0	0	4,05E-08	3,94E-07	6,62E-07	1,12E-06	-7,69E-06
 Components for re-use (CRU) [kg]	0	0	5,04E-02	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]	3,75E-01	0	2,02E-01	0	0	0	0	0	0	0	0	0	3,06E+00	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	3,42E-02	0	0	0	0	0	0	0	0	0	0	0	0
 Exported thermal energy (EET) [MJ]	0	0	6,09E-02	0	0	0	0	0	0	0	0	0	0	0	0

# Additional indicators from EN 15804

	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
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 / GWP-IOBC [kg CO <sub>2</sub> eq.] <sup>3</sup>	1,47E+00	8,75E-02	1,75E-01	0	0	0	0	0	0	0	2,82E-02	2,27E-02	2,42E-02	2,70E-01	-6,74E-02

<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.

## Information on biogenic carbon content

		At factory gate
<b>Biogenic Carbon Content</b>		A1 / A2 / A3
	Biogenic carbon content in product [kg]	1,40E-01
	Biogenic carbon content in packaging [kg]	2,44E-02

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.

## Additional information:

### Electricity information

The factory based in Kirkkonummi use electricity with Guarantee of Origin certificate (GO's). 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. Guarantee of Origin certificate (GOs) is bought from (Entelios) and a contract valid for the period 2023-2029 with the aim to be prolonged during the validity period of the EPD with the same energy mix.

Parameter	Information
<b>Location</b>	Electricity purchased by Saint-Gobain Finland Oy
<b>Share of electricity covered by Guarantee of Origin</b>	100% of the electricity consumption is covered by the GO 0% of electricity consumption is covered by residual mix
<b>Geographical representativeness description</b>	Split of electricity bought with Guarantee of Origin: Hydro 100%
<b>Reference year</b>	For residual mix: 2023 For GO: 2023 <i>The GO will be prolonged to be valid at least to the validity of this EPD.</i>
<b>Type of dataset</b>	Cradle to gate from Sphera and ecoinvent databases
<b>Source</b>	Residual mix: Sphera 2023 and ecoinvent 3.9.1 databases or International Energy Agency (IEA) Guarantee of Origin: Sphera dataset (2023) and Name of supplier of GO
<b>CO<sub>2</sub> emission (kg CO<sub>2</sub> eq. / kWh) (Based on Climate Change Fossil Indicator)</b>	Guarantee of Origin: 0,006 kg of CO <sub>2</sub> eq /kWh

## Transport to other countries

The transport to building site (module A4) in the main result is based on Finland. For transport to other countries per declared unit, additional sets of results are provided below, based on the following data:

Country	Truck (km)	Ship (km)
Norway	580	375
Denmark	156	1160
Estonia	86	90
Lithuania	396	90
Latvia	689	90
Sweden	100	375

Country	Norway	Denmark	Estonia	Lithuania	Latvia	Sweden
<b>A4 Transport</b>						
<b>Environmental indicators</b>						
Climate Change (total) [kg CO2 eq.]	2,77E-01	1,59E-01	4,38E-02	1,76E-01	3,01E-01	7,25E-02
Climate Change (fossil) [kg CO2 eq.]	2,74E-01	1,58E-01	4,34E-02	1,74E-01	2,98E-01	7,19E-02
Climate Change (biogenic) [kg CO2 eq.]	6,61E-04	2,45E-04	1,00E-04	4,41E-04	7,62E-04	1,34E-04
Climate Change (land use change) [kg CO2 eq.]	2,26E-03	6,10E-04	3,36E-04	1,54E-03	2,69E-03	3,90E-04
Ozone depletion [kg CFC-11 eq.]	2,34E-14	1,21E-14	3,66E-15	1,51E-14	2,59E-14	5,72E-15
Acidification terrestrial and freshwater [Mole of H+ eq.]	1,32E-03	3,30E-03	2,91E-04	4,39E-04	5,78E-04	1,09E-03
Eutrophication freshwater [kg P eq.]	8,97E-07	2,60E-07	1,34E-07	6,10E-07	1,06E-06	1,60E-07
Eutrophication marine [kg N eq.]	3,40E-04	7,84E-04	7,29E-05	1,23E-04	1,71E-04	2,62E-04
Eutrophication terrestrial [Mole of N eq.]	3,80E-03	8,61E-03	8,10E-04	1,41E-03	1,97E-03	2,88E-03
Photochemical ozone formation - human health [kg NMVOC eq.]	9,38E-04	2,23E-03	2,03E-04	3,31E-04	4,52E-04	7,40E-04
Resource use, mineral and metals [kg Sb eq.]	1,61E-08	5,11E-09	2,42E-09	1,09E-08	1,89E-08	3,01E-09
Resource use, energy carriers [MJ]	3,68E+00	2,02E+00	5,80E-01	2,35E+00	4,03E+00	9,36E-01
Water deprivation potential [m³ world equiv.]	2,86E-03	9,10E-04	4,29E-04	1,93E-03	3,36E-03	5,35E-04
<b>Resource Use Indicators</b>						
Use of renewable primary energy (PERE) [MJ]	2,37E-01	6,81E-02	3,52E-02	1,61E-01	2,80E-01	4,21E-02
Primary energy resources used as raw materials (PERM) [MJ]	0	0	0	0	0	0
Total use of renewable primary energy resources (PERT) [MJ]	2,37E-01	6,81E-02	3,52E-02	1,61E-01	2,80E-01	4,21E-02
Use of non-renewable primary energy (PENRE) [MJ]	3,69E+00	2,02E+00	5,81E-01	2,36E+00	4,04E+00	9,38E-01
Non-renewable primary energy resources used as raw materials (PENRM) [MJ]	0	0	0	0	0	0
Total use of non-renewable primary energy resources (PENRT) [MJ]	3,693	2,023	0,5811	2,36	4,042	0,9384
Input of secondary material (SM) [kg]	0	0	0	0	0	0
Use of renewable secondary fuels (RSF) [MJ]	0	0	0	0	0	0
Use of non-renewable secondary fuels (NRSF) [MJ]	0	0	0	0	0	0
Use of net fresh water (FW) [m³]	2,61E-04	7,61E-05	3,89E-05	1,77E-04	3,08E-04	4,67E-05
<b>Waste category &amp; Output flows</b>						
Hazardous waste disposed (HWD) [kg]	1,35E-11	6,86E-12	2,10E-12	8,69E-12	1,49E-11	3,27E-12
Non-hazardous waste disposed (NHWD) [kg]	5,13E-04	2,32E-04	7,91E-05	3,36E-04	5,78E-04	1,16E-04

Radioactive waste disposed (RWD) [kg]	4,73E-06	2,48E-06	7,41E-07	3,04E-06	5,22E-06	1,17E-06
Components for re-use (CRU) [kg]	0	0	0	0	0	0
Materials for Recycling (MFR) [kg]	0	0	0	0	0	0
Material for Energy Recovery (MER) [kg]	0	0	0	0	0	0
Exported electrical energy (EEE) [MJ]	0	0	0	0	0	0
Exported thermal energy (EET) [MJ]	0	0	0	0	0	0
<b>Supplementary climate indicator</b>						
GWP-GHG / GWP-IOBC [kg CO2 eq.]	2,77E-01	1,59E-01	4,38E-02	1,76E-01	3,01E-01	7,25E-02

## 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. ISO 14025:2006: Environmental labels and Declarations-Type III Environmental Declarations-Principles and procedures.
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 4.0) [www.environdec.com](http://www.environdec.com).
6. The International EPD System PCR 2019:14 Construction products and Construction services. Version 1.3.2
7. European Chemical Agency, Candidate List of substances of very high concern for Authorization. <https://echa.europa.eu/candidate-list-table>
8. LCA report-Gypsum\_2024\_2025 v2 Finland