

# Environmental Product Declaration



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

## ***SINIAT Vindgips plasterboard***

EPD of multiple products recently on the market, based on a representative product from

**PLADUR® | ALGISS®**

Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
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**Product recently on the market** – Results of this EPD shall be used with care as the LCI data is not yet based on 1 year of production which may result in increased uncertainty.



## General information

### Programme information

<b>Programme:</b>	The International EPD <sup>®</sup> 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>
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<b>Accountabilities for PCR, LCA and independent, third-party verification</b>
<b>Product Category Rules (PCR)</b>
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>PCR 2019:14 Construction products, version 2.0.1, published on 2025-06-05, valid until 2030-04-07.</i> Complementary Product Category Rules (C-PCR) to PCR 2019:14: <i>C-PCR-031 (TO PCR 2019:14) Gypsum-based construction products (EN 17328:2024), version 1.0.0, published on 2025-04-24, valid until 2030-04-07.</i>
PCR review was conducted by: <i>The Technical Committee of the International EPD System. A full list of members is available on <a href="http://www.environdec.com">www.environdec.com</a>. The review panel may be contacted via <a href="mailto:support@environdec.com">support@environdec.com</a>. Chairs of the PCR Review: Rob Rouwette (chair) and Noa Meron (co-chair).</i> <i>C-PCR-031 was developed within CEN standardization and adopted as a c-PCR by the International EPD<sup>®</sup> System. There was thus no additional open consultation period and no additional review in addition to those within standardization.</i>
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: <i>Anthesis Group</i>
<b>Third-party verification</b>
External and independent (“third-party”) verification of the declaration and data, according to ISO 14025:2006, via EPD verification through:  <input checked="" type="checkbox"/> Individual EPD verification without a pre-verified LCA/EPD tool.  Third-party verifier: <i>Cristina Gazulla Santos, CERTINALIA, S.L.U. Anardi Area Aldea, 5, 20730 Azpeitia, Guipuzkoa (Spain) is an approved certification body accountable for the third-party verification.</i>
Procedure for follow-up of data during EPD validity involves third party verifier:  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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, 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.

## Company information

Owner of the EPD: PLADUR GYPSUM, S.A.U.

Contact: David Sáenz de Villaverde, [david.saenz@pladur.com](mailto:david.saenz@pladur.com)

Description of the organisation: Pladur Gypsum SAU is a leading company in the manufacture of laminated gypsum boards and sustainable construction systems. With over 45 years of experience, belongs to the Etex group.

Product-related or management system-related certifications: ISO 14001 Environmental Management System and ISO 9001 Quality Management System.

Name and location of production site(s): P.I. La Atalaya, Ctra. A 1105, km 12, 50786 Gelsa, Zaragoza (Spain).

## Product information

Product name: SINIAT Vindgips.

Product identification: This EPD covers a gypsum plasterboards family of 5 plasterboards represented by the product MR Scan 09.5 SE 1200 2700 FU60 produced at Gelsa, Zaragoza (Spain), which is the best-selling product of this family of products and represents 0.77% of the total production of products manufactured by PLADUR GYPSUM, S.A.U.

The following table includes the multiple products that covers this EPD (any length between the minimum and maximum specified is also covered by the document):

Product	Weight (kg/m <sup>2</sup> )	Thickness (mm)	Width (mm)	Length (mm)
MR Scan 09.5 SE 1200 2700 FU60	6.6	9.5	1200	2700
MR Scan 09.5 SE 1200 2400 FU60	6.6	9.5	1200	2400
MR Scan 09.5 SE 1200 2500 FU60	6.6	9.5	1200	2500
MR Scan 09.5 SE 1200 2800 FU60	6.6	9.5	1200	2800
MR Scan 09.5 SE 1200 3000 FU60	6.6	9.5	1200	3000

**Product recently on the market** – Results of this EPD shall be used with care as the LCI data is not yet based on 1 year of production which may result in increased uncertainty.

Product description: The MR Scan 09.5 SE 1200 2700 FU60 is a gypsum plasterboard with a thickness of 9.5 mm. The boards are used on outside construction and refurbishment of buildings. It is suitable for outdoor use as wind sheet covering behind facades, normally with ventilated cavity. Gypsum boards are produced in a continuous rolling process and finished with straight longitudinal edges and straight transversal edges. They are manufactured according to the specification EN 520, which defines its characteristics.

UN CPC code: 37530.

Geographical scope: Raw materials are provided by Spanish, German, Belgian and French suppliers but the products under study can be sell at a global scale. This EPD report considers sales of 7% in Denmark and 93% in Norway.

### Content declaration

The following content declaration corresponds to the product MR Scan 09.5 SE 1200 2700 FU60.

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-%	Biogenic material, weight-kg C/unit
Gypsum	5.4	0	0	0
Plasterboard	0.4	100	100	0.7
Additives	0.1	0	0	0
Water	0.7	0	0	0
<b>Total</b>	<b>6.6</b>	<b>6.1</b>	<b>6.1</b>	<b>0.7</b>
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/unit	Weight biogenic carbon dioxide, kg CO <sub>2</sub> /unit
Wooden pallet	0.268	4.058	0.13	0.49
Cardboard	0.002	0.03	0.001	0.004
Plastic film (30% recycled content)	0.001	0.018	0	0
Plastic film (70% recycled content)	0.005	0.072	0	0
<b>Total</b>	<b>0.276</b>	<b>4.18</b>	<b>0.13</b>	<b>0.49</b>

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO<sub>2</sub>.

No substances contained in the product declared within this EPD exceed the limits for registration with the candidate list of Substances of Very High Concern (SVHCs) of the European Chemicals Agency.

The EPD of UNIPLAC plasterboard liner from WEIG (S-P-08304) is being used as a raw material data source.

### LCA information

Declared unit: Covering 1 square meter (1 m<sup>2</sup>) of wall with plasterboard over a life reference time of 50 years, using plasterboard with a weight of 6.6 kg/m<sup>2</sup> and a thickness of 9.5 mm.

Product lifespan: 50 years.

Time representativeness: All specific data related to the consumption of raw materials, electricity, and natural gas corresponds to the cumulative production in 2025. The data related to waste production and sales refer to the year 2023 for similar products for which EPDs have been developed.

Database(s) and LCA software used: The primary inventory data has been obtained from PLADUR GYPSUM, S.A.U corresponding to 5 different gypsum plasterboards produced at Gelsa (Spain). Data is for the representative product.

The secondary data has been extracted from the Ecoinvent v3.11 database, included in the SimaPro v9.10.2.0 software and internationally recognized. Wherever possible, inventory data relating to the specific study countries, or in its absence from Europe in general, has been selected. These have been

used for the stage of production and transport of raw materials, as well as for electricity generation or waste management processes, over which the manufacturer has no direct influence.

#### Description of system boundaries:

This EPD report considers the scope cradle to gate with options, modules C1–C4, module D and optional modules A4–A5 (A1–A3 + A4–A5 + C + D), covering the modules of extraction and processing of raw materials (A1), their transportation to the production plant (A2), the plasterboards manufacturing (A3), the distribution to the final client (A4) and installation (A5), end of life (C1-C4) and potential benefits and loads from the reuse and recycling of the plasterboards at its end of life (D).

As indicated in c-PCR-031 (EN 17328), no actions or technical operations are typically required during the use stage once installation is complete, until the end-of-life stage (B2 to B5). Therefore, gypsum-based products generally do not have a quantifiable impact in these modules. Additionally, gypsum-based products typically do not require energy or water (B6-B7) during the building's operation phase, and thus, no environmental impact is attributable to this stage.

Applicable lifecycle stages with the system boundaries and processes are described below.

#### **Product stage (A1-A3):**

- Raw material supply (A1): This module considers the extraction and processing of raw materials used for the manufacture of the gypsum plasterboard. Likewise, the production of the energy necessary for the manufacturing process (electricity and natural gas) is also taken into account. Plaster losses during the manufacturing process are reintroduced into the production process, thus they are not considered an input of secondary material. Regarding electricity consumption, a model has been created with a 25% of renewable energy generated by solar panels and a 75% electrical mix of 100% solar origin corresponding to the energy consumed at the PLADUR GYPSUM, S.A.U plant. The production of 1 kWh of electricity consumed by the PLADUR GYPSUM, S.A.U. manufacturing plant in Gelsa (Zaragoza) in 2023 generates 0.0541 kg CO<sub>2</sub> eq.
- Transport of the raw materials (A2): This module consists of the transportation of all raw materials covered by module A1, from the extraction, production, and treatment site to the factory, considering the specific distances of each material supplier.
- Manufacturing of plasterboards (A3): This module refers to the production process of the gypsum plasterboard in the production plant. It includes the combustion of natural gas, and the water consumed during the manufacturing process. It also considers the waste generated from the production process: the treatment and transport from the production plant to the waste manager. Finally, it considers the packaging used for distribution: the production of the primary and secondary packaging of the product (plastic film, plastic sheet, wooden pallet and corner pieces), and the transport of this packaging from suppliers to the PLADUR GYPSUM, S.A.U factory.

#### **Installation stage (A4-A5):**

- Transport to the installation site (A4): The plasterboard is transported to the installation point by truck and ship that goes to Denmark and Norway. The distance included corresponds to the weighted average between sales and the distance to each installation site.

Scenario information	Unit (expressed per declared unit)
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc.	Road transport by >32 metric tonne lorry (Euro VI) Sea freight transport by container ship
Distance (weighted average)	397 km by road (Bermeo) and 1408 km (Denmark) / 2396 km (Norway) by sea
Capacity utilisation (including empty returns)	61% load factor including empty returns
Bulk density of transported products	2403 kg/m <sup>3</sup>
Volume capacity utilisation factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaged products)	Factor <1

- Installation (A5): For this stage is necessary to consume joint compound, water, joint tape and screws. In some cases, the product is applied in removable ceilings and screws and tape are not necessary. The waste treatment of the product packaging is also included in this phase. A 5% product loss during installation is considered, in accordance with c-PCR-031.

Scenario information	Unit (expressed per declared unit)
Ancillary materials for installation (specified by material)	Joint paste, joint tape, screws
Water use	0.17 kg/m <sup>2</sup>
Other resource use	No applicable
Quantitative description of energy type (regional mix) and consumption during the installation process	No applicable
Waste materials on the building site before waste processing, generated by the product's installation (specified by type)	Wood waste: 0.230 kg Plastic waste: 0.005 kg Paper waste: 0.002 kg
Output materials (specified by type) as result of waste processing at the building site e.g. of collection for recycling, for energy recovery, disposal (specified by route)	Wood for incineration: 0.0584 kg Wood for recycling: 0.0447 kg Wood for landfill: 0.0587 kg Wood for energy recovery: 0.1061 kg Plastic for incineration: 0.0005 kg Plastic for recycling: 0.0035 kg Plastic for landfill: 0.0003 kg Plastic for energy recovery: 0.0016 kg Paper for incineration: 0.00003 kg Paper for recycling: 0.0018 kg Paper for landfill: 0.0001 kg Paper for energy recovery: 0.0001 kg
Direct emissions to ambient air, soil and water	0 kg

The following table presents the end-of-life scenario that has been considered for those wastes generated during the installation of the products at the construction site.

End of life	Wood	Plastic	Paper
Disposal – incineration	21.8%	8.4%	1.4%
Recycling	16.7%	58.8%	90.7%
Disposal – landfill	21.9%	5.8%	4.8%
Energy recovery	39.6%	27.0%	3.1%

**End of life stage (C1-C4):**

- Deinstallation (C1): This includes the weight of plasterboard use in the installation stage. Energy consumption and particle emissions to air due to the plasterboard’s demolition are included considering the assumptions made by Ecoinvent 3.11.
- Transport to the waste processing site (C2): This module considers a default distance of 80 km between the building site and the waste manager facility.
- Waste processing (C3): Only the gypsum fraction of the product is considered recyclable. This module includes the process of treating gypsum waste (including energy consumption) that is recycled in the construction sector, including energy consumption, based on data from Ecoinvent 3.11. This module includes an additional transport of 80 km to represent the transport from the collection point to the location where the recycling of the material takes place.
- Disposal (C4): This module includes the final discharge of waste that has not been destined for recovery or treatment processes.

For modules C3 and C4, the percentage of mineral waste from construction and demolition recycled in Denmark and Norway depending on the material has been considered based on data of EUROSTAT (2024).

	Units for declared unit (m <sup>2</sup> )	kg	%
<b>Collection process specified by type</b>	Collected separately	6.6	100%
	Collected with mixed construction waste	0	0%
<b>Waste recovery process</b>	Reuse	0	0%
	Recycling	3.91	59%
	Energy recovery	0	0%
<b>Waste disposal</b>	Landfill	2.69	39%
	Incineration without energy recovery	0	0%
<b>Assumptions for scenario development, e.g. transportation</b>	Waste is transported 80 km to final disposal by lorry 16-32 t (Euro V) Waste is transported 50 km to recycling site by lorry >32 t (Euro V)		

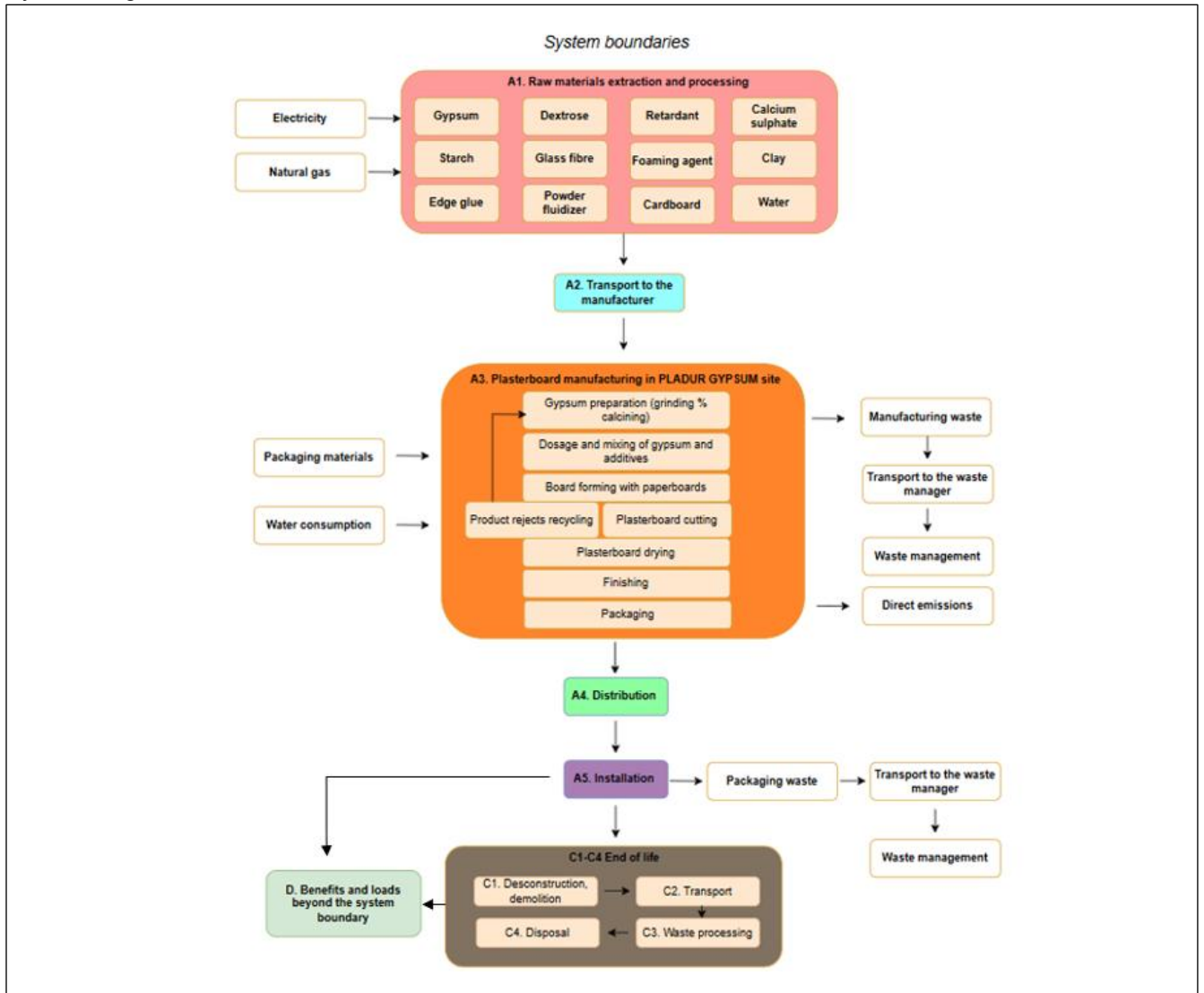
**Benefits and loads beyond the system boundary (D):**

This module analyses the benefits and burdens related to the processes of recovery, reuse or recycling of waste from the product under study at their end of life, which could form part of the life cycle of a new product. Moreover, the recycling potential of the packaging of the product (i.e. wood, plastic and paper) has been considered. It has been assumed that only the gypsum fraction of the product is recyclable, and the substituted primary material is gypsum mineral. Module D has been calculated using the protocols/formulae stated in UNE-EN 15804+A2 Annex D, section D.3.4.

	Product	Packaging		
<b>Materials recovered outside the boundaries of the system</b>	Gypsum	Wood	Plastic	Paper
<b>Recycling process beyond the system boundaries</b>	Treatment of waste gypsum plasterboard	Recycling of wood	Recycling of Polyethylene	Recycling of paper
<b>Materials saved</b>	Gypsum mineral	Wood	Polyethylene	Containerboard, linerboard
<b>Associated quantities per declared unit (m<sup>2</sup>)</b>	3.64 kg	0.0447 kg	0.0035 kg	0.0018 kg
<b><i>M<sub>MR out</sub></i> (%)</b>	63	16.7	58.8	90.7
<b><i>M<sub>MR in</sub></i> (%)</b>	6	0	60	100
<b>Quality factor</b>	1	0.75	0.75	1

The scenarios for modules C1-C4 and D are realistic and representative of one of the most probable alternatives. The scenarios do not include processes or procedures that are not in current use or whose feasibility have not been demonstrated.

System diagram:



More information:

Company website for more information: <https://corporativo.pladur.com/es-ES/>

Name and contact information of LCA practitioner:

Anthesis Group  
Rambla de Catalunya, 6, principal, 08007 Barcelona  
+34 938 515 055  
[www.anthesisgroup.com](http://www.anthesisgroup.com)

Cut-off rules: In accordance with the provisions of the PCR 2019:14 construction products, version 2.0.1 and the standard UNE-EN 15804:2012+A2:2020, 100% of total inflows (raw materials and energy) and outflows (including wastes) per module have been considered.

The following processes have not been included in the scope of the study:

- Manufacture of equipment used in production, buildings or any other assets.
- Business trips.
- Maintenance activities at the production plants and research and development.
- Transportation of personnel to and within the plants.
- Diffuse particle emissions during the transport and storage of raw materials.

Infrastructure and capital goods for upstream, core and downstream processes has been excluded.

Allocation procedures

- The electricity consumption of the product for been calculated using a mass allocation, by dividing the total electricity consumption of the production plant by the total m<sup>2</sup> of plasterboard produced.
- For the rest of the production plant energy consumption as well as for waste produced a mass allocation were used.
- For module C3 and C4, the end-of-life treatment of each material has been assigned according to the most common treatment of the materials in the selling countries.

Data quality requirements: This EPD is based on data collected by PLADUR GYPSUM, S.A.U. from the Gelsa plant (Zaragoza, Spain). The EPD covers a gypsum plasterboards family of 5 plasterboards represented by the product MR Scan 09.5 SE 1200 2700 FU60, produced at this facility during 2025 (the data related to waste production and sales refer to the year 2023). The end-of-life stage of the EPD covers both Denmark and Norway.

Data quality requirements established by ISO 14025 standard, PCR 2019:14 Construction products, version 2.0.1 and UNE-EN 15804:2012+A2:2020 have been applied. The technological, geographical, and temporal coverage of the primary data has been evaluated through a data quality assessment of generic and specific data defined by the PEF on LCA database development as described in Annex E.2 of the UNE-EN 15804:2012+A2:2020 standard. As a result of the data quality matrix, it is quantified that the gathered data achieves a medium level of quality (3.72 out of 5) in a range of very poor (1), poor (2), medium (3), good (4) and very good (5).

The quality of the data used to calculate this LCA meets the following requirements:

- Used background data are of recognised prestige and acceptance in the technical and scientific fields. In particular, the Ecoinvent v3.11 database, the most recent version existing at the time of the study, is considered to be of preferential use.
- Regionally specific datasets were used to model the energy consumption (electricity or natural gas). For the processes of transport, production of raw materials or end-of-life, datasets were chosen according to their technological and geographical representation of the actual process.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage						End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
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	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x
Geography	RER	RER	ES	RER	DK/NO	ND	ND	ND	ND	ND	ND	ND	DK/NO	DK/NO	DK/NO	DK/NO	RER
Specific data used <sup>1</sup>	43.4%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-2%/4%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3 (%)
Raw materials (A1)	Collected data, EPD	Ecoinvent v3.11	2024	Generic data	39.4
Silicone (A1)	Database	Ecoinvent v3.11	2024	Generic data	18.6
Consumption (A1)	Collected data	PLADUR GYPSUM	2025	Primary data	9.4
Transport raw materials (A2)	Collected data	PLADUR GYPSUM	2025	Primary data	14.0
Packaging transportation (A3)	Collected data	PLADUR GYPSUM	2025	Primary data	16.7
Packaging production (A3)	Database	Ecoinvent v3.11	2024	Generic data	2.3
Waste (A3)	Collected data	PLADUR GYPSUM	2023	Generic data	0.5
Consumption (A3)	Collected data	PLADUR GYPSUM	2025	Primary data	17.7
Total share of primary data, of GWP-GHG results for A1-A3					43.4

<sup>1</sup> The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

## Results of the environmental performance indicators

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/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).

The characterization methods of version EF 3.1 of the EN 15804 reference package (2023) adapted for SimaPro substances has been used.

The biogenic carbon contained in the cardboard used as raw material and the wood and paper used for packaging was estimated and balanced between modules A1-A3, A5 and C.

### Mandatory impact category indicators according to EN 15804

Results per declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	7.55E-01	3.46E-01	1.71E-01	3.40E-03	3.30E-02	2.80E-02	5.58E-02	3.54E-03
GWP-biogenic	kg CO <sub>2</sub> eq.	-1.88E+00	1.21E-05	5.10E-01	1.54E-07	1.04E-06	5.61E-01	8.26E-01	0.00E+00
GWP-luluc	kg CO <sub>2</sub> eq.	3.05E-03	8.30E-06	1.97E-04	1.40E-07	5.22E-07	4.84E-06	2.45E-05	-1.30E-05
GWP-total	kg CO <sub>2</sub> eq.	-1.12E+00	3.46E-01	6.81E-01	3.40E-03	3.30E-02	5.89E-01	8.82E-01	3.53E-03
ODP	kg CFC 11 eq.	1.90E-06	6.79E-09	3.65E-09	5.17E-11	7.50E-10	5.81E-10	1.22E-09	1.17E-10
AP	mol H <sup>+</sup> eq.	2.58E-03	4.82E-03	8.26E-03	3.14E-05	8.53E-05	7.95E-05	6.11E-02	-3.22E-05
EP-freshwater	kg P eq.	3.63E-05	2.45E-07	7.99E-06	3.20E-09	2.04E-08	1.49E-07	7.40E-07	-4.55E-08
EP-marine	kg N eq.	8.94E-04	1.19E-03	2.55E-04	1.48E-05	3.25E-05	2.82E-05	2.09E-04	-6.31E-06
EP-terrestrial	mol N eq.	8.88E-03	1.33E-02	2.56E-03	1.62E-04	3.55E-04	3.08E-04	1.29E-03	-1.87E-04
POCP	kg NMVOC eq.	2.46E-03	3.88E-03	1.41E-03	4.84E-05	1.41E-04	1.18E-04	4.11E-03	-1.23E-05
ADP-minerals&metals*	kg Sb eq.	3.59E-06	6.60E-09	3.64E-07	1.19E-10	8.61E-10	7.33E-10	1.13E-08	-3.97E-11

ADP-fossil*	MJ	9.54E+00	4.54E+00	2.33E+00	4.44E-02	4.39E-01	3.67E-01	9.10E-01	6.29E-02
WDP*	m <sup>3</sup>	1.30E+00	1.52E-03	5.84E-02	3.32E-05	1.44E-04	4.32E-04	-2.01E-01	8.00E-04
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption								

\* 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.

### Additional mandatory and voluntary impact category indicators

Results per declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG <sup>1</sup>	kg CO <sub>2</sub> eq.	9.94E-02	3.46E-01	1.88E-01	3.40E-03	3.30E-02	2.80E-02	5.59E-02	3.53E-03
Acronyms	GWP-GHG = Potential global warming - Greenhouse gases								

<sup>1</sup>This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.

**Resource use indicators\***

Results per declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	2.26E+00	1.02E-02	6.79E+00	9.68E-05	1.09E-03	5.73E-03	8.10E+00	-1.96E-01
PERM	MJ	1.30E+01	0.00E+00	-4.97E+00	0.00E+00	0.00E+00	0.00E+00	-8.08E+00	0.00E+00
PERT	MJ	1.46E+01	1.02E-02	1.82E+00	9.68E-05	1.09E-03	5.73E-03	2.76E-02	-1.96E-01
PENRE	MJ	4.13E+00	3.63E-02	8.51E-01	4.47E-04	3.01E-03	2.64E-02	1.37E-01	-8.64E-03
PENRM	MJ	3.22E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.31E+00	3.63E-02	8.51E-01	4.47E-04	3.01E-03	2.64E-02	1.37E-01	-8.64E-03
SM	kg	5.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m <sup>3</sup>	2.98E-02	8.60E-05	1.75E-03	1.34E-06	8.49E-06	1.97E-05	-4.59E-03	2.00E-05
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

\* Disclaimer: The results presented are subject to limitations due to data availability. Specifically, the EPD used as the data source for the cardboard does not declare certain indicators. As such, this omission may affect the completeness and comparability of the results.

### Waste indicators\*

Results per declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4.47E-05	2.70E-05	1.36E-05	3.05E-07	2.92E-06	2.31E-06	7.66E-06	4.28E-07
Non-hazardous waste disposed	kg	6.10E-02	1.25E-04	3.55E-01	1.59E-06	1.48E-05	2.80E-05	2.72E+00	8.16E-06
Radioactive waste disposed	kg	1.54E-05	2.39E-07	4.15E-06	2.07E-09	2.65E-08	1.08E-07	7.85E-07	-8.44E-09

\* Disclaimer: The results presented are subject to limitations due to data availability. Specifically, the EPD used as the data source for the cardboard does not declare certain indicators. As such, this omission may affect the completeness and comparability of the results.

### Output flow indicators

Results per declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	1.00E-02	0.00E+00	5.09E-02	0.00E+00	0.00E+00	3.91E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	1.08E-01	0.00E+00	0.00E+00	0.00E+00	9.38E-02	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

## Variation of the environmental performance of the plasterboard SINIAT Vindgips / GU family of products from the representative product MR Scan 09.5 SE 1200 2700 FU60

The impact difference between the following plasterboards from the family is mainly due to the difference in size between them, as they share a very similar composition which includes the same raw materials.

Indicator	Unit	MR Scan 09,5 SE 1200 2700 FU60	MR Scan 09,5 SE 1200 2400 FU60	MR Scan 09,5 SE 1200 2500 FU60	MR Scan 09,5 SE 1200 2800 FU60	MR Scan 09,5 SE 1200 3000 FU60
GWP-fossil	kg CO <sub>2</sub> eq.	-	-1.81%	3.45%	-0.94%	1.68%
GWP-biogenic	kg CO <sub>2</sub> eq.	-	-1.71%	13.21%	-3.23%	4.45%
GWP-luluc	kg CO <sub>2</sub> eq.	-	-6.56%	14.22%	-5.00%	1.63%
GWP-total	kg CO <sub>2</sub> eq.	-	-1.92%	-5.97%	1.01%	-0.82%
ODP	kg CFC 11 eq.	-	-2.44%	13.04%	-3.34%	3.98%
AP	mol H <sup>+</sup> eq.	-	-0.14%	0.29%	-0.04%	0.08%
EP-freshwater	kg P eq.	-	-1.82%	3.42%	-0.08%	0.99%
EP-marine	kg N eq.	-	-1.77%	2.95%	-0.47%	0.72%
EP-terrestrial	mol N eq.	-	-1.65%	2.71%	-0.38%	0.72%
POCP	kg NMVOC eq.	-	-1.18%	0.70%	0.24%	0.25%
ADP-minerals&metals	kg Sb eq.	-	-1.45%	10.48%	-2.07%	3.83%
ADP-fossil	MJ	-	-1.86%	3.94%	-0.38%	1.46%
WDP	m <sup>3</sup>	-	-2.42%	10.80%	-2.43%	3.35%
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential. Accumulated Exceedance; EP-freshwater = Eutrophication potential. fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential. fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential. Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential. deprivation-weighted water consumption					

## Mandatory impact category indicators according to EN 15804

Since the declared end-of-life scenario is a combination of recycling and landfill. The corresponding 100% results scenarios are reported for modules C1-C4 and D.

Results for modules per declared unit					
Indicator	Unit	100% RECYCLING SCENARIO		100% LANDFILL SCENARIO	
		MODULES C1-C4	MODULE D	MODULES C1-C4	MODULE D
GWP-fossil	kg CO <sub>2</sub> eq.	6.44E-02	-1.57E-02	2.01E-01	-1.83E-02
GWP-biogenic	kg CO <sub>2</sub> eq.	4.79E-06	-2.28E-04	1.10E-04	-2.23E-04
GWP-luluc	kg CO <sub>2</sub> eq.	5.50E-06	-1.79E-04	6.55E-05	-1.74E-04
GWP-total	kg CO <sub>2</sub> eq.	6.44E-02	-1.61E-02	2.01E-01	-1.87E-02
ODP	kg CFC 11 eq.	1.38E-09	-3.87E-10	4.36E-09	-4.53E-10
AP	mol H <sup>+</sup> eq.	1.96E-04	-1.85E-04	1.50E-01	-1.14E-04
EP-freshwater	kg P eq.	1.54E-06	-1.78E-05	1.80E-05	-1.69E-05
EP-marine	kg N eq.	7.58E-05	-5.76E-05	5.94E-04	-4.49E-05
EP-terrestrial	mol N eq.	8.26E-04	-7.22E-04	4.00E-03	-3.93E-04
POCP	kg NMVOC eq.	3.08E-04	-1.47E-04	1.04E-02	-1.18E-04
ADP-minerals&metals*	kg Sb eq.	1.71E-09	-4.10E-09	2.93E-08	-3.26E-09
ADP-fossil*	MJ	8.51E-01	-2.50E-01	3.08E+00	-2.88E-01
WDP*	m <sup>3</sup>	6.09E-04	-8.63E-03	-4.93E-01	-8.06E-03
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption				

## Abbreviations

Abbreviation	Definition
EN	European Norm (Standard)
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CLC	Co-location centre
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared
PCR	Product Category Rules
C-PCR	Complementary Product Category Rules
LCI	Life Cycle Inventory
LCA	Life Cycle Assessment
UN	United nations
UNE	Asociación Española de Normalización

## Version history

**Original Version of the EPD, 2025-08-05**

**Revision 1, 2025-09-26**

Differences versus the previously published version: editorial changes only, no changes in data or results

## References

- General Programme Instructions (GPI) of the International EPD system. Version 5.0.
- Product Category Rules (PCR): *PCR 2019:14 Construction products, version 2.0.1, published on 2025-06-05, valid until 2030-04-07.*
- Complementary Product Category Rules (C-PCR) to PCR 2019:14: *C-PCR-031 (TO PCR 2019:14) Gypsum-based construction products (EN 17328:2024), version 1.0.0, published on 2025-04-24, valid until 2030-04-07.*
- Environdec Programme: The International EPD System <https://www.environdec.com/home>
- ISO/TR 14047: 2003 – Environmental management – Life Cycle Assessment – LCI application examples.
- ISO/TS 14048: 2003 – Environmental management – Life Cycle Assessment – Data inventory.
- ISO/TR 14049: 2000 – Environmental management – Life Cycle Assessment – Examples of application of objectives and scope and inventory analysis.
- UNE-EN ISO 14040:2006 – Environmental management – Life Cycle Assessment – Principles and framework.
- UNE-EN ISO 14044:2006 – Environmental management – Life Cycle Assessment – Requirements.
- UNE-EN 15804:2012+A2:2020 – Sustainability in construction. Product environmental statements. Commodity category rules for construction products.
- UNIPLAC® - Plasterboard Liner Environmental Product Declaration from Moritz J. Weig GmbH & Co. KG, published on 2023-02-21, reviewed on 2025-02-25 and valid until 2028-02-09.

