ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 and ISO 21930:2017 for:

Gyproc Hard Coat

Version: 1
Version date: 2026-04-10
Validity: 5 years
Validity date: 2031-04-09

Gyproc Ireland, Unit 4, Kilcarbery Business Park, Nangor Road, Clondalkin, Dublin 22, D22 R2Y7, Ireland

EPD INTERNATIONAL EPD SYSTEM

Programme: The International EPD System, www.environdec.com
Programme operator: EPD International AB
Registration number: EPD-IES-0027733:001

EPD Type: Single product from a manufacturer
Scope: Cradle-to-grave and module D

An EPD should provide current information and may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

General information

Programme information

Programme:	The International EPD System [1]
Address:	EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden
Website:	www.environdec.com
E-mail:	support@environdec.com

PCR information

CEN standard EN 15804:2012+A2:2019/AC:2021 [2] and ISO standard ISO 21930:2017 [3] as the core Product Category Rules (PCR)

Product category rules (PCR): PCR 2019:14 Construction Products, version 2.0.1 [4]
Complementary PCR: (c-PCR-031), 2025-04-24. c-PCR Gypsum-based construction products [5]

PCR review was conducted by: The Technical Committee of The International EPD System
See 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 [6], 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: Matthew Fishwick, Fishwick Environmental Ltd
Approved by: The International EPD System

Procedure for follow-up of data during EPD validity involves third-party 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. For further information about comparability, see EN 15804, ISO 14020 [7] and ISO 14025.

Information about the EPD owner

Address and contact information of the EPD owner: Gyproc Ireland, Unit 4, Kilcarbery Business Park, Nangor Road, Clondalkin, Dublin 22, D22 R2Y7, Ireland
Description of the organization of the EPD owner: Manufacturing company of construction materials
Management system-related certification: ISO 14001 [8], ISO 50001 [9], ISO 9001 [10]
LCA practitioners: Dave Dowdell (dave.dowdell@saint-gobain.com), Charnett Chau (charnett.chau@saint-gobain.com) and Fintan Smyth (fintan.smyth@saint-gobain.com).
Communication: The intended use of this EPD is for B2B communication

Product information

Product name: Gyproc Hard Coat [11]
UN CPC code: 37530 Articles of plaster or of composition based on plaster
Manufacturing site(s): Kirkby Thore, Penrith, CA10 1XU, England

Product description

Gyproc Hard Coat is a gypsum undercoat plaster ideal for two coat plaster systems. It can be applied by hand or by spray machine for extra speed and convenience.

For more information: www.gyproc.ie.

Technical data/physical characteristics

Parameter	Value/Description
EN classification	B4/20/2 (EN 13279-1:2008) [12]
Reaction to fire	A1 (EN 13279-1:2008)

Application	Value/Description
Intended use and key functionalities	Gyproc Hard Coat is ideal for most medium to high suction backgrounds, including masonry such as bricks and aircrete blocks. It's suitable for applying by hand or using a plaster projection machine.
Expected influence on the operational aspects and impact of the building or other construction work	None. Would not typically require maintenance if maintained under suitable dry conditions of temperature and humidity.
Restrictions to a type of construction or building	None
Lifespan	50 years (see LCA Information)

Content declaration

Quantities below are for a functional unit, being 1 kg of dry Gyproc Hard Coat powder, as applied.

Product components	Mass (kg)	Post-consumer recycled material[1], (mass-% of functional unit)	Biogenic material[2], (mass-% of functional unit)	Biogenic material[3], (kg C/functional unit)
Gypsum	>0.61	0	0	0
GGBS	>0.22	0	0	0
Other minerals	>0.16	0	0	0
Additives	<0.01	0	0	0
Total	**1.0**	**0**	**0[4]**	**0[4]**
Packaging materials	**Mass (kg)**	**Mass-% (versus the functional unit)**	**Biogenic material, (kg C mass-% versus the functional unit)**	**Biogenic material, (kg C/functional unit)**
Cardboard	0.0004	0.04	0.017	0.00017
Composite bag	0.0040	0.40	0.16	0.0016
LDPE film	0.00012	0.012	0	0
Wooden pallet	0.0063	0.63	0.26	0.0026
Total	**0.011**	**1.1**	**0.44**	**0.0044**

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, either in the product or packaging, following the European REACH regulation (Registration, Evaluation, Authorization and Restriction of Chemicals) [13].

[1] The worst-case of 0% post-consumer material is declared due to the amount of post-consumer content used by our suppliers being unknown. Within Sphera and ecoinvent datasets, recycled content was modelled.

[2] Biogenic carbon content in % is equivalent to the mass of carbon per overall mass of material (i.e. kg C/kg).

[3] 1 kg of biogenic carbon in product or packaging is equivalent to the uptake of 44/12 kg CO_2.

[4] Biogenic carbon content is well below 0.05 kg C (5%) so is not declared (<0.001 kg C or <0.1%).

LCA information

Functional unit	1 kg of dry Gyproc Hard Coat powder, as applied [14]
Conversion factor to mass	N/A
System boundaries	Cradle to grave and module D
Reference service life (RSL)	The modelled RSL of Gyproc Hard Coat is 50 years [14].
Cut-off rules	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 5% of the whole mass and energy used, as well as emissions to the environment, per module. For this study, all data were available; therefore, the cut-off rules were not applied. Flows related to human activities such as employee transport are excluded. Heating and lighting at the manufacturing plant are included. Infrastructure/capital goods are excluded from primary data but are typically included in background data sources (listed below) and difficult to separate.
Allocations	Allocation has been avoided where possible, for example, through use of sub-metering in manufacture. Where this is not possible e.g. manufacturing plant waste data, a mass allocation is used between plaster and co-products. Any allocation from module A5 onwards uses a cut-off approach. The polluter pays and the modularity principles have been followed.
Data quality assessment	Data quality has been rated by its geographical, technical and temporal representativeness (see Data quality declaration). No data rated as Very Poor were used in the study. Overall, data quality is rated as Good.
Geographical coverage and time period	Scope: GB/Ireland (production), Ireland (use and disposal) Data has been collected for one mine/quarry (Birkshead mine) and one production site (Kirkby Thore), located in England. Data collected for the year 2024
Background data source	Sphera Managed LCA Content (MLC) v2025.1 [15] and ecoinvent v.3.10 (cut-off version) [16]
Software	Sphera LCA for Experts 10 [17]
LCA methodology	In addition to EN 15804:2019+A2, PCR 2019:14 v2.0.1, EN 17328:2024 and c-PCR-031 v1.0.0, the study was carried out in accordance with ISO 14040:2006 [18], ISO 14044:2006 [19], and GPI for The International EPD System v5.0.1 [20]. Note: EN 15804 reference package based on EF 3.1 has been used [21].

Data quality declaration

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.

Process	Source type	Source	Reference year	Data category	A1-A3 GWP-GHG (% contribution to primary data)
Manufacturing process					
Energy specific	Collected data, databases	EPD owner, Sphera 2025.1, ecoinvent 3.10	<5 years old	Primary and secondary data	66.5%
Transport					
Transport of RM product	Collected data, databases	EPD owner, Sphera 2025.1, ecoinvent 3.10	<5 years old	Primary and secondary data	0.43%
Transport of RM packaging	Collected data, databases	EPD owner, Sphera 2025.1, ecoinvent 3.10	<5 years old	Primary and secondary data	0.02%
Raw materials from EPDs[5]					
Methyl cellulose	EPD	Redacted	<5 years old	Primary and secondary data	0.4%
Gypsum (imported)	EPD	Redacted	<5 years old	Primary and secondary data	1.0%
Other raw materials					
Raw materials	Databases	Sphera 2025.1, ecoinvent 3.10	< 5 years old	Secondary data	0%
				Total A1-A3 GWP-GHG share of primary data	**67%**

A1-A3 GWP-GHG [kg CO_2 eq.]	1.47E-01

Each secondary dataset used in the LCA was rated on a scale of 1 (very good) to 5 (very poor) for geographical, technical and time representativeness (using criteria in Table E1 of EN 15804:2019+A2). A simple average was then calculated for each data quality category, reported below. A rating of 2 can be considered as good quality data and 1 as very good quality data.

Geographical Rating	Technical Rating	Temporal Rating
2.10	1.98	1.93

[5] The reported share of primary data is associated with uncertainty, as EPDs used as data sources lack information on the share of primary data.

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	Reuse-recovery
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EU		GB/IE	IE/GB-NIR													

Life cycle stages

Note: Where materials for recycling leave modules A to C, the end-of-waste state is reached after transport to the gate of the recycling operation and before the recycling operation.

A1-A3. Product stage

Modules A1-A3 sit within the Product stage of a building's life cycle, where raw and secondary materials are extracted and processed (A1) before being transported (A2) to manufacturing facilities for the fabrication of building products (A3). Here we detail modules A1-A3 for the product Gyproc Hard Coat.

A1. Raw materials supply

This module includes the extraction and transformation of raw materials. Raw materials that are required to manufacture Gyproc Hard Coat include gypsum rock extracted from the Birkshead mine in England and imported gypsum rock, and other materials procured from various countries around the world, predominantly in UK. These raw materials can be categorised as “virgin” materials.

A2. Transport to the manufacturer

This module includes the transportation of raw materials and packaging to the manufacturing site. The modelling includes transport by road, sea and rail, as appropriate.

A3. Manufacturing

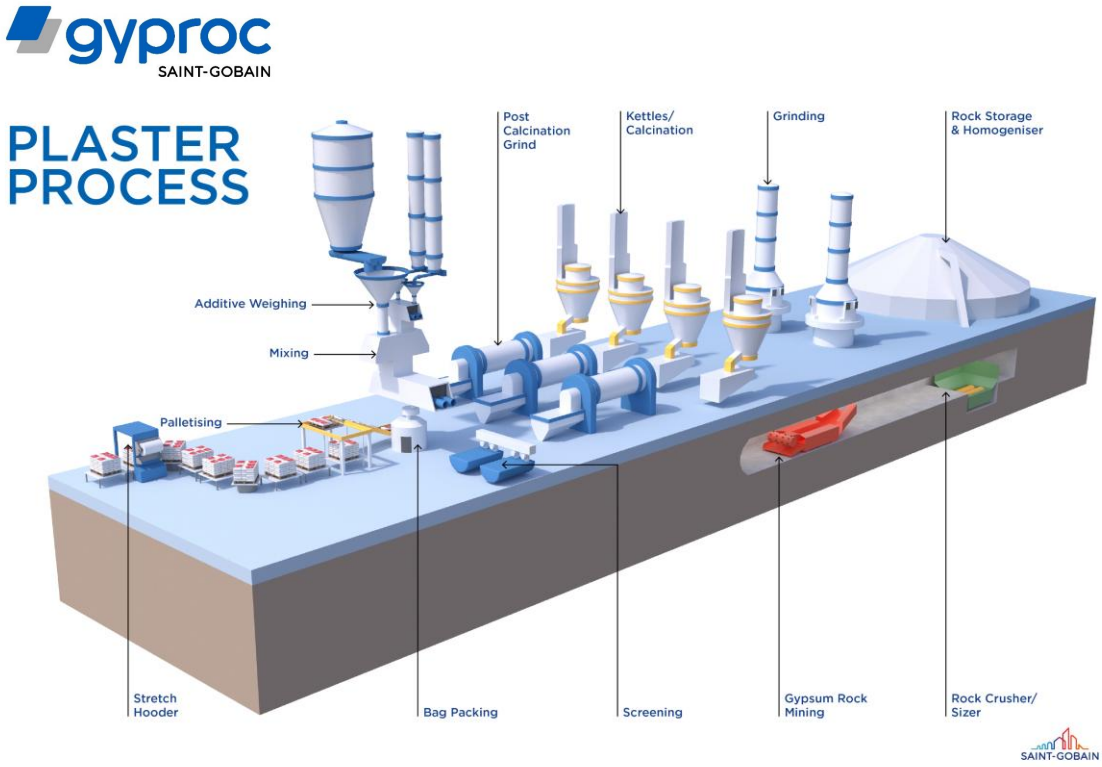
This module includes the manufacture of products (energy consumption, water consumption, waste management, etc.). The manufacturing process is shown in the process flow diagram below. In module A3, the processing of waste arising from the manufacturing process is also modelled.

This stage also includes transport of finished product from Kirkby Thore, England to Kingscourt, Ireland, and warehouse activities at Kingscourt (for example, lighting, forklift trucks), prior to dispatch.

Manufacturing process flow diagram

This is a generic Saint-Gobain diagram that illustrates how plaster products are typically produced. Specific aspects relevant to this product not represented in the process flow diagram are noted below:

1. The Kirkby Thore plant uses a feeder system instead of a homogeniser.
2. Beyond the stretch hooder, the finished products are transported to Kingscourt, Ireland, where they are stored in a warehouse until dispatch.



Gypsum rock mining. Gypsum rock is mined and/or quarried.
Rock/Crusher/Sizer. The mined and/or quarried gypsum rock is crushed to a desirable size.
Rock Storage & Homogeniser. Gypsum rock is stored and homogenised to obtain a more consistent quality.
Grinding. The gypsum rock is ground to a size suitable for calcination.
Kettles/Calcination. The gypsum rock is heated to remove some chemically bound water to form stucco.
Post Calcination Grind. The stucco undergoes further grinding to obtain a particle size suitable for plaster products.
Screening: The stucco is screened to ensure a uniform particle size for use in the product.
Additive Weighing. Stucco and other materials are weighed according to a product recipe.
Mixing. The stucco and other materials are mixed to form the plaster product.
Bag Packing: The finished plaster product is bagged.
Palletising: Finished bagged plaster products are loaded on pallets.
Stretch Hooder. Pallet loads of bagged plaster are held together with an LDPE film wrapping.

A4-A5. Construction process stage

The construction process is divided into two 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
Fuel type and consumption of vehicle or vehicle type used for transport (e.g. long-distance truck, boat)	Average truck trailer, 22 t maximum load, average load 18.7 t, diesel consumption 38 litres per 100 km
Distance	193 km
Capacity utilisation (including empty returns)	72% (including 30% empty returns)
Volume capacity utilisation factor	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, and the transport and management of packaging and product waste.

When installed, water is added to the dry powder and mixed. The LCA considers some of this water is retained to form dried plaster, meaning 1 kg of dry powder produces a greater mass of dried plaster (see C1-C4 End-of-life stage). Remaining added water evaporates.

Levelling plasters: The amount of Gyproc Hard Coat dry powder to cover 3.0 m^2 at 11 mm thickness is 25 kg, with a recommended ratio of 15 kg of water / 25 kg of dry powder.

Parameter	Value/Description
Ancillary materials for installation	None
Water for on-site mixing of plaster	15 kg of water / 25 kg of dry powder [14]
Other resource use	None
Electricity for on-site mixing	0.0154 MJ/kg (powder)
Scrap rate at installation	5% for dry plaster powder [14] 100% for packaging
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	Plaster (powder): 0.05 kg Packaging: 0.011 kg
Transport of packaging waste	Landfill: 80 km
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))	Plaster (powder): 0.05 kg to landfill Cardboard packaging: 0.00042 kg to landfill Composite bag packaging: 0.0042 kg to landfill LDPE film packaging: 0.00013 kg to landfill Pallet packaging: 0.0066 kg to landfill
Direct emissions to ambient air, soil, and water	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 at least 50 years (see LCA Information section). It also assumes that the product will last in-situ with no requirements for maintenance, repair, replacement, or refurbishment throughout this period. Therefore, it has no impacts at this stage.

C1-C4. End-of-life stage

This stage includes the following modules:

C1. Deconstruction, demolition
The deconstruction and/or dismantling of the product occurs during demolition of the entire building. The energy considered for demolition is 1.1 kWh/tonne [4].

C2. Transport to waste processing
This module includes the transport for final disposal.

C3. Waste processing for reuse, recovery and/or recycling
This module includes processing of waste fractions from deconstruction for reuse, recycling or recovery. Since we assume no reuse, recycling or recovery of waste plaster, this is not applicable.

C4. Waste disposal
This module includes physical pre-treatment and site management for waste disposal. 100% of the product is assumed to be landfilled.

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

Parameter	Value/Description
Collection process specified by type	1.10 kg of installed plaster product (consisting of 1 kg of plaster powder) is collected with mixed deconstruction and demolition waste
Recovery system specified by type	0 kg recycled. There is no reuse, recycling or recovery of the product once it has reached end-of-life
Disposal specified by type	1.10 kg to landfill
Assumptions for scenario development (e.g. transportation)	The waste will be transported by truck with 24 t payload, using diesel as a fuel consuming 38 litres per 100 km Transport distance to landfill: 80 km

D. Reuse/recovery/recycling potential

This module includes the potential loads and benefits resulting from reuse, recycling and recovery beyond the system boundary.

Input materials for the manufacture of Gyproc Hard Coat include no secondary content, hence, no secondary materials were assumed to arise from the processing of waste in modules A4, A5, B and C. This is because all waste was assumed to be landfilled as a worst-case scenario. Impacts associated with landfill are accounted in module C4 and no benefits are shown in module D.

Environmental performance

As specified in EN 15804:2012+A2:2019/AC:2021 and PCR 2019:14, the environmental impacts are declared and reported using the baseline characterisation 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 the following environmental impact indicators shall be used with care as the uncertainties on these results are high or there is limited experience with their use:

- Resource use, mineral and metals [kg Sb eq.]
- Resource use, energy carriers [MJ]
- Water deprivation potential [m³ world equiv.]

Disclaimer 2: 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 functional unit of 1 kg of applied dry Gyproc Hard Coat powder. The following results refer to a single product manufactured in a single plant.

Environmental impacts

FU: 1 kg of dry Gyproc Hard Coat powder, as applied	Product stage	Construction stage		Use stage							End of life stage				Benefits and loads beyond the life cycle
Environmental indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Climate Change [kg CO_2 eq.]	1.29E-01	1.72E-02	2.62E-02	0	0	0	0	0	0	0	4.36E-04	1.77E-02	0	1.27E-02	0
Climate Change (fossil) [kg CO_2 eq.]	1.47E-01	1.70E-02	1.01E-02	0	0	0	0	0	0	0	4.35E-04	1.75E-02	0	1.06E-02	0
Climate Change (biogenic) [kg CO_2 eq.]	-1.82E-02	3.56E-05	1.61E-02	0	0	0	0	0	0	0	3.51E-08	3.65E-05	0	2.10E-03	0
Climate Change (land use change) [kg CO_2 eq.]	3.53E-04	1.76E-04	2.10E-05	0	0	0	0	0	0	0	3.78E-08	1.81E-04	0	2.81E-05	0
Ozone depletion [kg CFC-11 eq.]	8.18E-09	2.02E-15	4.21E-10	0	0	0	0	0	0	0	6.66E-12	2.07E-15	0	1.24E-10	0
Acidification terrestrial and freshwater [Mole of H+ eq.]	7.70E-04	2.13E-05	4.63E-05	0	0	0	0	0	0	0	3.93E-06	2.18E-05	0	7.50E-05	0
Eutrophication freshwater [kg P eq.]	1.78E-06	4.62E-08	1.01E-07	0	0	0	0	0	0	0	1.53E-09	4.74E-08	0	5.32E-08	0
Eutrophication marine [kg N eq.]	1.82E-04	8.10E-06	1.33E-05	0	0	0	0	0	0	0	1.82E-06	8.30E-06	0	2.32E-05	0
Eutrophication terrestrial [Mole of N eq.]	2.00E-03	8.49E-05	1.29E-04	0	0	0	0	0	0	0	2.00E-05	8.71E-05	0	2.54E-04	0
Photochemical ozone formation - human health [kg NMVOC eq.]	5.32E-04	1.77E-05	3.65E-05	0	0	0	0	0	0	0	5.95E-06	1.82E-05	0	8.02E-05	0
Resource use, mineral and metals [kg Sb eq.] [6]	1.95E-07	1.14E-09	1.07E-08	0	0	0	0	0	0	0	1.55E-10	1.16E-09	0	7.18E-09	0
Resource use, energy carriers [MJ] [6]	2.51E+00	2.18E-01	1.77E-01	0	0	0	0	0	0	0	5.64E-03	2.24E-01	0	1.88E-01	0
Water deprivation potential [m³ world equiv.] [6]	1.07E-02	6.86E-05	2.66E-02	0	0	0	0	0	0	0	1.75E-05	7.03E-05	0	5.41E-03	0

[6] 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

FU: 1 kg of dry Gyproc Hard Coat powder, as applied	Product stage	Construction stage		Use stage							End of life stage				Benefits and loads beyond the life cycle
Resource use 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
Use of renewable primary energy (PERE) [MJ] [7]	2.92E+00	1.60E-02	1.53E-01	0	0	0	0	0	0	0	3.50E-05	1.64E-02	0	1.70E-02	0
Primary energy resources used as raw materials (PERM) [MJ] [7]	1.76E-01	0	-1.64E-01	0	0	0	0	0	0	0	0	0	0	-1.26E-02	0
Total use of renewable primary energy resources (PERT) [MJ] [7]	3.10E+00	1.60E-02	-1.06E-02	0	0	0	0	0	0	0	3.50E-05	1.64E-02	0	4.39E-03	0
Use of non-renewable primary energy (PENRE) [MJ] [7]	2.51E+00	2.18E-01	1.77E-01	0	0	0	0	0	0	0	5.64E-03	2.24E-01	0	1.88E-01	0
Non-renewable primary energy resources used as raw materials (PENRM) [MJ] [7]	1.37E-02	0	-1.37E-02	0	0	0	0	0	0	0	0	0	0	-1.77E-06	0
Total use of non-renewable primary energy resources (PENRT) [MJ] [7]	2.52E+00	2.18E-01	1.63E-01	0	0	0	0	0	0	0	5.64E-03	2.24E-01	0	1.88E-01	0
Use of secondary material (SM) [kg]	3.73E-05	0	1.86E-06	0	0	0	0	0	0	0	0	0	0	0	0
Use of renewable secondary fuels (RSF) [MJ]	1.83E-02	0	9.15E-04	0	0	0	0	0	0	0	0	0	0	0	0
Use of non-renewable secondary fuels (NRSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of net fresh water (FW) [m^3]	4.09E-04	7.73E-06	6.35E-04	0	0	0	0	0	0	0	4.07E-07	7.92E-06	0	1.30E-04	0

[7] From PCR 2019:14 V2.0.1, Option A was selected to calculate the primary energy use indicators.

Waste category and output flows

FU: 1 kg of dry Gyproc Hard Coat powder, as applied	Product stage	Construction stage		Use stage							End of life stage				Benefits and loads beyond the life cycle
Waste category and output flows	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]	1.24E-02	7.90E-12	1.28E-03	0	0	0	0	0	0	0	4.93E-06	8.09E-12	0	1.44E-02	0
Non-hazardous waste disposed (NHWD) [kg]	2.61E-02	2.87E-05	9.70E-02	0	0	0	0	0	0	0	3.81E-05	2.94E-05	0	1.10E+00	0
Radioactive waste disposed (RWD) [kg]	7.47E-06	2.87E-07	4.06E-06	0	0	0	0	0	0	0	6.26E-10	2.94E-07	0	8.94E-07	0
Components for re-use (CRU) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials for Recycling (MFR) [kg]	2.55E-03	0	1.27E-04	0	0	0	0	0	0	0	0	0	0	0	0
Material for Energy Recovery (MER) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exported electrical energy (EEE) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exported thermal energy (EET) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Additional voluntary indicators from EN 15804

FU: 1 kg of dry Gyproc Hard Coat powder, as applied	Product stage	Construction stage		Use stage							End of life stage				Reuse, recovery recycling
Environmental indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
GWP-GHG [kg CO_2 eq.] [8]	1.47E-01	1.72E-02	1.01E-02	0	0	0	0	0	0	0	4.36E-04	1.77E-02	0	1.06E-02	0

Information on biogenic carbon content

	Product stage
Biogenic carbon content	**A1 / A2 / A3**
Biogenic carbon content in product [kg C]	5.74E-04
Biogenic carbon content in packaging [kg C]	4.38E-03

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2. The product contains biogenic carbon due to the additives used. Biogenic carbon content in packaging is due to wooden pallets, cardboard and composite bags.

[8] 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.

Declaration of variation

Not applicable for sites or products.

Additional environmental information

Electricity information

The Birkshead mine and production site at Kirkby Thore, England, use electricity with a Guarantee of Origin (GO) certificate from Smartest Energy Limited. Hence, use of electricity at these locations is modelled according to the electricity mix described in the GO certificate. The amount of electricity purchased with GOs covers all electricity consumption at these sites.

Type of information	Description
Location	Representative of the GO purchased by Saint-Gobain (GB)
Share of electricity covered by Guarantee of Origin	100% of the sites' electricity consumption is covered by the GO
Dataset version	Sphera CUP2025.1 ecoinvent 3.10 (medium voltage)
Type of dataset	Cradle to gate from Sphera and ecoinvent databases
Source of electricity mix	Smartest Energy Limited GO certificate
GWP-GHG CO_2 eq.	0.0236 kg CO_2 eq/kWh

Also, the warehouse at Kingscourt, Ireland uses electricity with a Guarantee of Origin (GO) certificate from Flogas Limited. Use of electricity at the warehouse is modelled according to the electricity mix described in the GO certificate. The amount of electricity purchased with GOs covers the electricity consumption at the site.

Type of information	Description
Location	Representative of the GO purchased by Saint-Gobain (Ireland)
Share of electricity covered by Guarantee of Origin	100% of the Gyproc Ireland's Kingscourt site electricity consumption is covered by the GO
Dataset version	Sphera CUP2025.1 ecoinvent 3.10 (medium voltage)
Type of dataset	Cradle to gate from Sphera and ecoinvent databases
Source of electricity mix	Flogas Limited GO certificate
GWP-GHG CO_2 eq.	0.0468 kg CO_2 eq/kWh

An EPD is valid for 5 years. Therefore, the GOs will be maintained for the period of validity of this EPD. If not, the EPD will be updated.

Abbreviations

DU Declared Unit
EPD Environmental Product Declaration
eq. equivalent
FU Functional Unit
EF Environmental Footprint
GO Guarantee of Origin
kg kilogram

kWh	kilowatt-hour
l	litre
LCA	Life Cycle Assessment
MJ	Mega Joules (as Net Calorific Value)
PCR	Product Category Rules
RSL	Reference Service Life (in years)
tonne	metric ton (1000 kg)

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