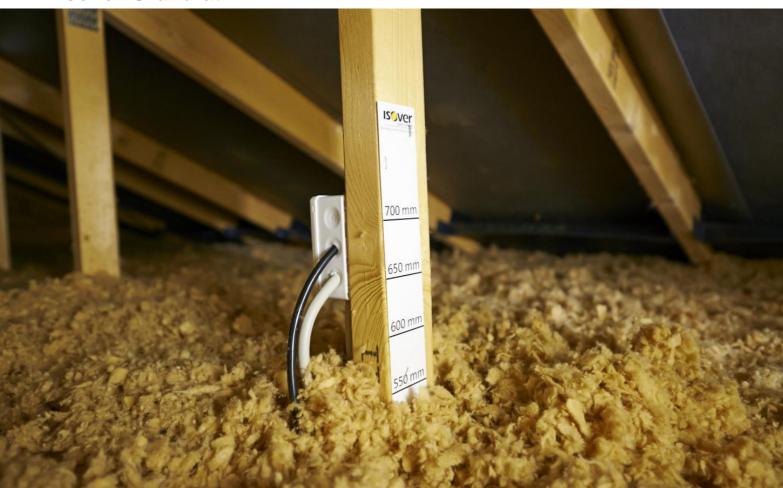




# **Environmental Product Declaration**

In accordance with ISO14025:2006 and EN15804:2012+A2:2019

## **Isover Granulat**





The Norwegian EPD Foundation

#### Owner of the declaration:

Saint-Gobain Denmark A/S, Isover

#### Product name:

Isover Granulat

#### Functional unit:

1 m<sup>2</sup> of product with a thermal resistance of 1 K.m<sup>2</sup>.K/W and a thickness of 42 mm, with a reference service life of 60 years.

#### Product category /PCR:

Core PCR EN 15804 :2012+A2:2019 NPCR 012:2022 Part B for thermal insulation products

This EPD is based on less than 1 year for the production data (January + February 2025) and a full year of raw material data (2024)

## Program holder and publisher:

The Norwegian EPD foundation

#### Declaration number:

NEPD-11438-11369

#### Registration number:

NEPD-11438-11369

#### Version 2

#### Issue date:

20.06.2025

#### Valid to:

20.06.2030

## General information

## Product:

Isover Granulat

## Program operator:

The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo, Norway

Phone: +47 23 08 80 00 E-mail: post@epd-norge.no

## Declaration number:

NEPD-11438-11369

# This declaration is based on Product Category Rules:

Core PCR EN 15804 :2012+A2:2019 NPCR 012:2022 Part B for thermal insulation products

## Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer, life cycle assessment data and evidences.

#### Declared unit:

1 m<sup>2</sup> of product with a thermal resistance of 1 K.m<sup>2</sup>.K/W and a thickness of 42 mm

## Declared unit with option:

Cradle to grave and module D(A + B + C + D).

#### **Functional unit:**

1 m² of product with a thermal resistance of 1 K.m².K/W and a thickness of 42 mm, with a reference service life of 60 years

## Verification:

Independent verification of the declaration and data, according to ISO14025:2010
Internal verification □ External verification ⊠

Martin Erlandsson
Independent verifier approved by EPD Norway

## Owner of the declaration:

Saint-Gobain Denmark A/S, Isover Contact person: Per Ferm

E-mail: Per.ferm@saint-gobain.com

## Manufacturer:

Saint-Gobain Denmark A/S, Isover

## Place of production:

Østermarksvej 4, 6580 Vamdrup, Denmark

## Management system:

ISO 9001 (Certificate no. DK016070) ISO 14001 (Certificate no. DK016069) ISO 45001 (Certificate no. DK016071) ISO 50001 (Certificate no. DK018748)

## Organisation no:

1020917543

## Issue date:

20.06.2025

#### Valid to:

20.06.2030

## Year of study:

Raw material data: 2024

Production data: 2025 (January and February) *To be recalculated when 1 year of data is available.* 

## Comparability:

EPD of construction products may not be able to compare if they do not comply with EN 15804 and are seen in a building context.

## The EPD has been worked out by:

Helene Løvkvist Andersen (Saint-Gobain Nordic) and Saint-Gobain LCA central team, using GaBi version 10.

Company-specific data has been verified by Hans Ramsing Orehøj and Helene Løvkvist Andersen.

**Approved** 

Håkon Hauan Manager of EPD Norway

## **Product**

## Product description:

This Environmental Product Declaration (EPD®) describes the environmental impacts of 1 m² of glass wool with a thermal resistance of 1 K.m².K/W of Isover Granulat. To calculate the impact of the range of commercial thicknesses between 38 mm and 500 mm, see the table "Conversion to mass and to specific thicknesses" in additional information section.

This EPD applies for one specific product from one single plant in Denmark.

UN CPC CODE: 37990 Non-metallic mineral products n.e.c. (including mineral wool, expanded mineral materials, worked mica, articles of mica, non-electrical articles of graphite or other carbon and articles of peat)

For more information: https://www.saint-gobain.dk/isover/produktoversigt/isover-granulat

## Product specification:

Description of the main components and/or materials for 1  $m^2$  of Isover Granulat with a thermal resistance of 1  $m^2$ .K/W, and a thickness of 42 mm.

Materials	Weight (%)
Mineral materials	30 – 40
Recycled glass (external cullet)	58 – 70
Additives	< 0,8
Sum	100
Packaging	Weight (kg)
LDPE (foils + stretch film, including paper labels, glue etc.)	0,015
Wooden pallet	0,04

#### Technical data: For a thickness of 42 mm.

Characteristics	Value	Unit
Thermal resistance	1	m²·K/W
Thermal conductivity	0,042	W/(m·K)
Reaction to fire	A2-s1; d0	
Density	25	kg/m³
Quantity for 1 m <sup>2</sup> of product	1,05	kg
Product used for the Installation	Blowing wool machine 0,0432 (diesel)	MJ/kg

#### Market:

Isover Granulat is manufactured and sold in Denmark

## Reference service life, product:

The reference service life of the product is similar to the service life of the building.

## Reference service life, building:

60 years.

#### Additional technical information

This EPD® includes a range of thicknesses between 38 mm and 500 mm. All the results in the table of this EPD® refer to Isover Granulat with a thickness of 42 mm, for a functional unit of 1 m² with a thermal resistance equals to 1 m² K/W.

Isover Granulat is a semi-finished product that can be installed at different densities and to different thicknesses. In order to obtain the environmental impact associated with every specific product and thickness, the results expressed in this EPD must be multiplied by its corresponding multiplication factor.

Conversion factors for thicknesses and density not listed below can be calculated as: product density (kg/m³) \* product thickness (mm) / 25 (kg/m³) \* 42 (mm)

Thickness (mm)	λ0,042* 25 kg/m³	λ0,038** 40 kg/m³
38	-	1,45
42	1	1,60
100	2,38	3,81
150	3,57	5,71
200	4,76	7,62
250	5,95	9,52
300	7,14	11,43
350	8,33	13,33
400	9,52	15,24
450	10,71	17,14
500	11,90	19,05

<sup>\*</sup> used for attics

<sup>\*\*</sup> used for cavity walls

Conversion factor to 1 kg
0,952

# LCA: Calculation rules

Parameter	Value / Description
Type of EPD	Cradle to grave and module D
Functional unit	Providing a thermal insulation on 1 m <sup>2</sup> of product with a thermal resistance of 1 K.m <sup>2</sup> .K/W and a thickness of 42 mm, with a reference service life of 60 years
System boundaries	Cradle to grave and module D (A + B + C + D)
Reference service life (RSL)	The Reference Service Life (RSL) of the insulation product is 60 years, provided that the product is installed correct into the building. This 60-year value is the amount of time that we recommend our products last for without refurbishment and corresponds to standard building design life.
	All data is available, no cut-off rules has been applied.
Cut-off rules	In the case if there was not enough information, the following procedure would have been taken: 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.  Flows related to human activities such as employee transport are excluded. 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.
Allocations	Allocation has been avoided when possible and when not possible a mass allocation has been applied.  The polluter pays and the modularity principles as well have been followed.
Geographical coverage And time period	Scope: Denmark Data is collected from one production site; Vamdrup located in Denmark. Raw material data: 2024 Production data: January and February 2025 The EPD will be recalculated when 1 year of data is available
Background data source	The databases Sphera 2023.2 and ecoinvent v.3.9.1
Software	Sphera LCA for experts (GaBi) 10

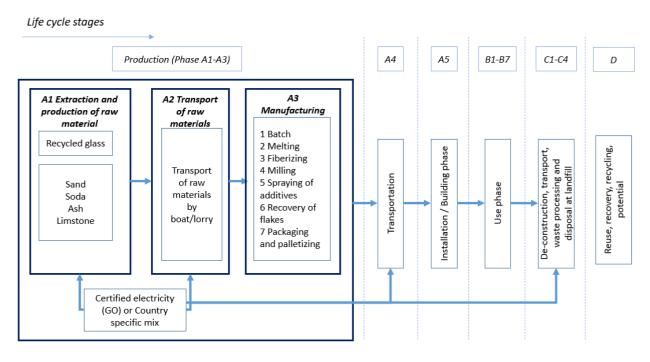
# LCA: Scenarios and additional technical information

The following stages and modules have been included for this product.

System boundaries (X=included, MND=module not declared)

Pro	duct s	tage		embly age		lse stag	e	Er	nd of I	ife sta	ge	Benefits & loads beyond system boundary				
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling- potential
A1	A2	A3	A4	A5	B1	B2	ВЗ	B4	B5	В6	В7	C1	C2	C3	C4	D
Х	Х	X	X	Х	Х	Χ	Х	Х	Χ	X	Х	Х	Х	X	Х	X

## System boundary:



## Product stage (A1-A3)

#### A1, Raw materials supply

This module includes the extraction and transformation of raw materials.

#### A2, Transport to the manufacturer

This module includes the transportation of raw materials and packaging to the manufacturing site. The modelling includes road, ship and/or train transportations.

## A3, Manufacturing

This module includes the manufacture of products such as (fusion, fiberizing, etc.) and the manufacture of packaging. The production of packaging material is considered at this stage. The processing of any waste arising from this stage is also included.

During the manufacturing process, electricity based on 100% renewable electricity bought with Guarantee of Origin (GO) has been used. The amount of electricity purchases with GO's correspond to 100% of the electricity consumed at the manufacturing site, leaving 0% to be covered by the Danish national grid mix.

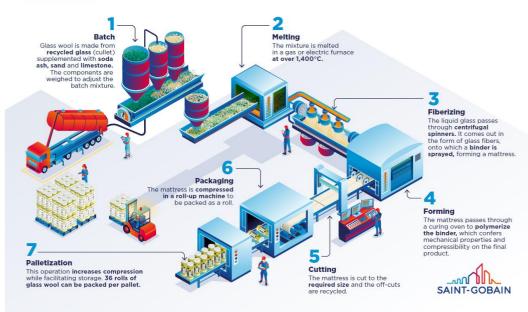
During the manufacturing process, biogas bought with Guarantee of Origin (GO) has been used. The amount of biogas purchases with GO's correspond to 100% of the gas consumed at the manufacturing site.

## Guarantees of origin for the use of electricity and biogas in the manufacturing phase

Parameter	Consumption covered (%)	Value, GWP total	Description
Electricity mix (GO's)	100 %	0,00614 kg CO <sub>2</sub> eq. / kWh	100% Hydro – RER from Sphera
Gas mix (GO's)	100 %	0,0573 kg CO <sub>2</sub> eq. / kWh	100% Biogas – RER from Sphera

## Manufacturing process flow diagram

# GLASS WOOL MANUFACTURING BY ISOVER



## Manufacturing in detail:

Glass wool is made from high-temperature molten glass that is blown away using centrifugal force to form fine cotton-like fibers.

Then, a binder is sprayed on the material to form it, and the product is heated in an oven. Hereafter, the product is cut to size and packed.

## Construction process stage (A4-A5)

## A4, Transport from production place to 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, etc.	Freight truck, maximum load weight of 24 t and consumption of 0,38 liters diesel per km.
	Real 13 t load.
Distance	116 km by truck
Capacity utilization (including empty returns)	43% in weight (30% empty returns)
Bulk density of transported products	130 kg/m <sup>3</sup>

## A5, Installation in the building

This module includes the installation of the product using a blowing wool machine.

Parameter	Value / Description
Energy for installation	0,0432 MJ/kg of product (diesel)
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	2% for product 100% for packaging
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)	Product waste: 0,021 kg, 100% landfill LDPE: 0,015 kg, 99% recycled + 1% incineration with energy recovery  Wooden pallet: 0,04 kg, 96% recycling + 2,5% incineration with energy recovery + 1,5% landfill
Distance to waste treatment facilities	<ul><li>25 km to landfill by truck</li><li>25 km to recycling by truck</li><li>25 km to incineration with energy recovery by truck</li></ul>
Assumption for scenario development (e.g. transportation)	The waste going to landfill will be transported by truck with 24 t payload, consuming 0,38 liters diesel per km.
Direct emissions to ambient air, soil, and water	None

## Use stage (B1-B7)

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 60 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.

## End of Life stage (C1-C4)

This stage includes the following modules:

- C1: The de-construction and/or dismantling of the product takes 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.

Parameter	Value / Description						
Energy for demolition and sorting	0,045 MJ/kg of product (diesel)						
Collection process (specified by type)	The entire product 1,05 kg of glass wool is collected with mixed construction waste						
Recovery system (specified by type)	There is no recovery, recycling or reuse of the product once it has reached its end-of-life phase.						
Disposal (specified by type)	1,05 kg of product is landfilled						
Assumption for scenario development (e.g. transportation)	The waste going to landfill will be transported by truck with 24 t payload, consuming 0,38 liters diesel per km.  Transport distance to landfill: 25 km						

## Benefits and loads beyond the system boundaries (D)

There is inclusion of secondary materials in the product and packaging.

100% of product waste is considered landfilled.

The packaging is to be reuse, recycling and/or incineration with energy recovery which is taken into consideration in stage D.

## LCA: Results

As specified in EN 15804:2012+A2:2019/AC:2021 and the Product Category Rules, the environmental impacts are declared and reported using the baseline characterization factors from the ILCD. Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plant. Characterization factors of EN15804 are based on EF 3.1.

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

All emissions to air, water, and soil, and all materials and energy used have been included.

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 taken 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 functional unit of 1 m<sup>2</sup> of glass wool with thermal resistance of 1 K.m<sup>2</sup>.K/W for a thickness of 42 mm. To obtain results with different commercial thicknesses and density, see additional technical information section (p.4).

## Core environmental impact indicators

		PRODUCT STAGE	USE STAGE								BENEFITS AND LOADS BEYOND THE LIFE CYCLE					
E	nvironmental 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 (total) [kg CO <sub>2</sub> eq.]	4,54E-01	1,35E-02	8,05E-02	0	0	0	0	0	0	0	4,69E-03	1,91E-03	0	2,14E-02	-1,91E-02
(10)	Climate Change (fossil) [kg CO <sub>2</sub> eq.]	4,47E-01	1,33E-02	1,81E-02	0	0	0	0	0	0	0	4,69E-03	1,89E-03	0	1,55E-02	-1,94E-02
	Climate Change (biogenic) [kg CO <sub>2</sub> eq.]	5,50E-03	3,53E-05	6,24E-02	0	0	0	0	0	0	0	5,92E-07	5,05E-06	0	5,79E-03	3,16E-04
	Climate Change (land use change) [kg CO <sub>2</sub> eq.]	1,10E-03	1,25E-04	2,87E-05	0	0	0	0	0	0	0	5,28E-07	1,74E-05	0	4,90E-05	-3,38E-06
	Ozone depletion [kg CFC-11 eq.]	4,66E-09	1,18E-15	1,38E-10	0	0	0	0	0	0	0	7,46E-11	2,44E-16	0	4,01E-14	-5,95E-11
35	Acidification terrestrial and freshwater [Mole of H+ eq.]	4,70E-03	1,64E-05	1,20E-04	0	0	0	0	0	0	0	4,35E-05	2,39E-06	0	1,12E-04	-7,58E-05
	Eutrophication freshwater [kg P eq.]	8,07E-05	4,93E-08	2,40E-06	0	0	0	0	0	0	0	1,44E-07	6,87E-09	0	3,18E-08	-2,76E-06
NA	Eutrophication marine [kg N eq.]	1,12E-03	5,79E-06	3,31E-05	0	0	0	0	0	0	0	2,02E-05	8,38E-07	0	2,89E-05	-1,03E-05
	Eutrophication terrestrial [Mole of N eq.]	1,56E-02	6,79E-05	3,99E-04	0	0	0	0	0	0	0	2,19E-04	9,81E-06	0	3,18E-04	-1,31E-04
	Photochemical ozone formation - human health [kg NMVOC eq.]	2,52E-03	1,43E-05	7,96E-05	0	0	0	0	0	0	0	6,48E-05	2,10E-06	0	8,72E-05	-1,02E-04
	Resource use, mineral and metals [kg Sb eq.] <sup>1</sup>	5,49E-05	8,78E-10	1,12E-06	0	0	0	0	END OF LIFE STAGE  LOADS BEYOND TI LIFE CYCLI  The wish as a lead of the stage of t	-6,70E-08						
	Resource use, energy carriers [MJ] <sup>1</sup>	5,17E+00	1,84E-01	2,24E-01	0	0	0	0	0	0	0	6,12E-02	2,56E-02	0	LOADS BEYOND THI LIFE CYCLE  2,14E-02 -1,91E-02 1,55E-02 -1,94E-02 5,79E-03 3,16E-04 4,90E-05 -3,38E-06 4,01E-14 -5,95E-11  1,12E-04 -7,58E-05 3,18E-08 -2,76E-06 2,89E-05 -1,03E-05 3,18E-04 -1,31E-04 8,72E-05 -1,02E-04 7,29E-10 -6,70E-08 2,10E-01 -9,20E-01	-9,20E-01
<b>(</b>	Water deprivation potential [m³ world equiv.] <sup>1</sup>	2,50E-01	1,56E-04	6,06E-03	0	0	0	0	0	0	0	2,07E-04	2,27E-05	0	1,73E-03	-1,45E-02

Reading example: 9.0 E-03 = 9.0\*10-3 = 0.009

<sup>&</sup>lt;sup>1</sup> The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

## Resource use

	PRODUCT CONSTRUCTION STAGE STAGE						US	SE ST	AGE			E		BENEFITS AND LOADS BEYOND THE LIFE CYCLE		
Resources 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] <sup>2</sup>	2,07E+01	1,30E-02	4,18E-01	0	0	0	0	0	0	0	3,50E-04	1,86E-03	0	3,42E-02	-1,64E-02
*	Primary energy resources used as raw materials (PERM) [MJ] <sup>2</sup>	6,05E-01	0	-5,86E-01	0	0	0	0	0	0	0	0	0	0	0	0
*	Total use of renewable primary energy resources (PERT) [MJ] <sup>2</sup>	2,13E+01	1,30E-02	-1,69E-01	0	0	0	0	0	0	0	3,50E-04	1,86E-03	0	3,42E-02	-1,64E-02
O	Use of non-renewable primary energy (PENRE) [MJ] <sup>2</sup>	4,72E+00	1,84E-01	2,15E-01	0	0	0	0	0	0	0	6,12E-02	2,57E-02	0	2,10E-01	-9,20E-01
O	Non-renewable primary energy resources used as raw materials (PENRM) [MJ] <sup>2</sup>	7,70E-01	0	-6,54E-01	0	0	0	0	0	0	0	0	0	0	0	0
O	Total use of non-renewable primary energy resources (PENRT) [MJ] <sup>2</sup>	5,49E+00	1,84E-01	-4,39E-01	0	0	0	0	0	0	0	6,12E-02	2,57E-02	0	2,10E-01	-9,20E-01
<b>S</b>	Input of secondary material (SM) [kg]	7,65E-01	0	1,53E-02	0	0	0	0	0	0	0	0	0	0	0	0
*	Use of renewable secondary fuels (RSF) [MJ]	3,03E-29	0	6,06E-31	0	0	0	0	0	0	0	0	0	0	0	0
O	Use of non-renewable secondary fuels (NRSF) [MJ]	3,56E-28	0	7,11E-30	0	0	0	0	0	0	0	0	0	0	0	0
(3)	Use of net fresh water (FW) [m³]	8,92E-03	1,43E-05	2,03E-04	0	0	0	0	0	0	0	4,82E-06	2,04E-06	0	5,31E-05	-3,38E-04

<sup>&</sup>lt;sup>2</sup> For this study, both the product and its packaging energy content is considered in the indicators "use of renewable primary energy resources used as raw materials" (PERM) and "use of non-renewable primary energy resources used as raw materials" (PENRM). PERM and PENRM are reported as negative values when materials are reused, recycled, or recovered for energy, but not when they are landfilled.

# End of life – Waste & output flow

	PRODUCT STAGE		RUCTION AGE	USE STAGE			END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE LIFE CYCLE				
Waste Category & 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]	9,70E-06	6,82E-13	4,03E-07	0	0	0	0	0	0	0	4,13E-07	7,95E-14	0	4,58E-12	2,72E-08
Non-hazardous waste disposed (NHWD) [kg]	2,63E-01	2,65E-05	3,11E-02	0	0	0	0	0	0	0	3,78E-04	3,92E-06	0	1,05E+00	6,49E-04
Radioactive waste disposed (RWD) [kg]	2,54E-05	2,38E-07	6,75E-07	0	0	0	0	0	0	0	6,73E-09	4,81E-08	0	2,39E-06	-4,03E-07
Components for re-use (CRU) [kg]	0	0	3,92E-02	0	0	0	0	0	0	0	0	0	0	0	0
Materials for Recycling (MFR) [kg]	9,62E-02	0	5,67E-02	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	3,35E-03	0	0	0	0	0	0	0	0	0	0	0	0
Exported thermal energy (EET) [MJ]	0	0	6,02E-03	0	0	0	0	0	0	0	0	0	0	0	0

## Additional environmental impact indicators required for construction products

	PRODUCT STAGE	IISE STAGE		AGE			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
GWP-IOBC / GWP-GHG [kg CO <sub>2</sub> eq.] <sup>3</sup>	5,14E-01	1,35E-02	1,99E-02	0	0	0	0	0	0	0	4,69E-03	1,91E-03	0	1,57E-02	-1,90E-02

## Information describing the biogenic carbon content at the factory gate

		PRODUCT STAGE
Bioge	nic Carbon Content	A1 / A2 / A3
9	Biogenic carbon content in product [kg]	0
<b>(</b>	Biogenic carbon content in packaging [kg]	1,65E-02

Note: 1kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

The packaging contains biogenic carbon due to the wooden pallet.

<sup>&</sup>lt;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.

# Additional requirements

## Electricity and gas information

Market-based approach is used in the manufacturing phase (A3) for electricity and gas that are covered by GOs. There are no remaining quantities to be covered by location based electricity mix and gas mix.

Type of information	Description of electricity				
Share of consumption covered	0%				
Location based electricity mix	National production mix, Denmark				
Type of dataset	Cradle to gate from Sphera				
Source	Dataset Sphera DK: Electricity grid mix				
CO <sub>2</sub> emission kg CO <sub>2</sub> eq. / kWh (Climate Change – Fossil)	0,573 kg CO <sub>2</sub> eq. / kWh				

Note: Amount bought electricity to the core process is not reported as it is business sensitive and therefore confidential.

Type of information	Description of gas				
Share of consumption covered	0%				
Location based conservative mix	Natural gas (conservative approach)				
Type of dataset	Cradle to gate from Sphera				
Source	Dataset Sphera: Thermal energy from natural gas, RER				
CO <sub>2</sub> emission kg CO <sub>2</sub> eq. / MJ (Climate Change – Fossil)	0,0169 kg CO <sub>2</sub> eq. / MJ				

Note: Amount bought gas to the core process is not reported as it is business sensitive and therefore confidential

#### Hazardous substances

At the date of issue of this declaration, there is no "Substance of Very High Concern" (SVHC) in concentration above 0.1% by weight, and neither do their packaging, following the European REACH regulation (Registration, Evaluation, Authorization and Restriction of Chemicals).

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

#### Indoor environment

The product has an Indoor Air Comfort GOLD certificate (IACG-400-08-01-2024)

## Carbon footprint

The GWP-IOBC value can be found in previous tab of "Additional environmental impact indicators required for construction products" (p.14).

# Additional information

## Transport to other countries

Transport to other countries have not been included.

# Bibliography

ISO 14025:2010 Environmental labels and declarations - Type III environmental

declarations - Principles and procedures

ISO 14044:2006 Environmental management - Life cycle assessment -

Requirements and guidelines

EN 15804:2012+A2:2019 Sustainability of construction works - Environmental product

declaration - Core rules for the product category of construction

products

ISO 21930:2017 Sustainability in building construction - Environmental declaration

of building products

GPI EPD Norge General Program Instructions for the Norwegian EPD Fundation version

3:2019 update 25.05.2023

NPCR Part A NPCR for Construction products and services (version 2.0)

NPCR 010:2022 Part B NPCR for thermal insulation products

European Chemical Agency, Candidate List of substances of very high concern for Authorization. <a href="https://echa.europa.eu/candidate-">https://echa.europa.eu/candidate-</a>

list-table

Project report for the verification of the Environmental Product Declaration of insulation products, Saint-Gobain Denmark A/S, Isover, version 1 (April 2025) by Helene Løvkvist Andersen, Quentin

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