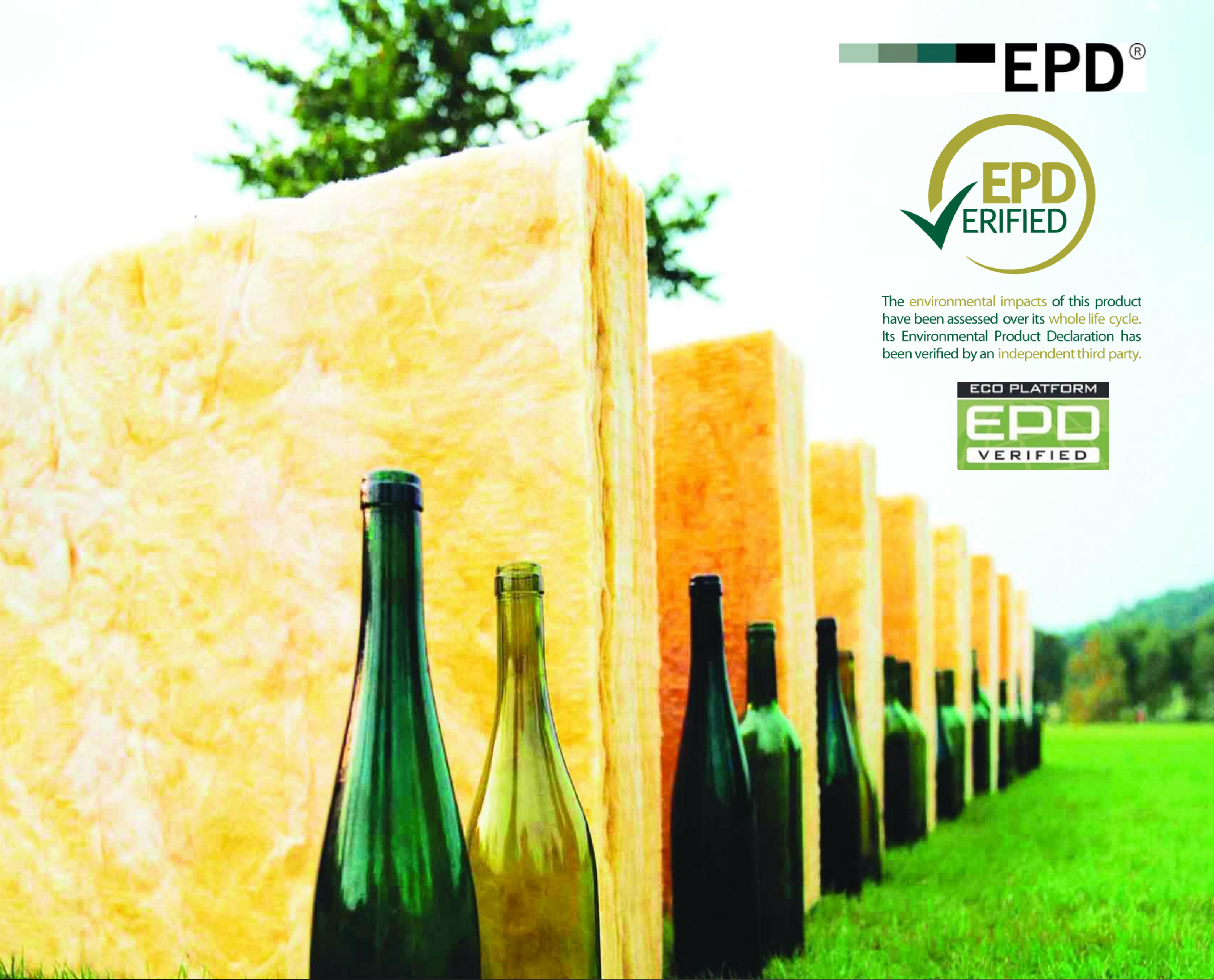


ENVIRONMENTAL PRODUCT DECLARATION

In accordance with EN 15804 and ISO 14025

Spacesaver and Spacesaver Ready-Cut product family

Date of publication: 2022-02-21
Version: 1
Validity: 5 years
Valid until: 2027-02-20

Based on PCR 2012:01 Construction products and construction services (EN 15804:A1) (2.34) & c-PCR-005 Thermal Insulation products (EN 16783)

Scope of the EPD®: United Kingdom & Ireland

Registration number:
The International EPD® System:
S-P-05654

ISOVER SAINT-GOBAIN

General Information

Manufacturer: **Saint-Gobain ISOVER UK Ltd, Whitehouse Industrial Estate, Runcorn, Cheshire, WA7 3DP, UK.**

Programme used: **The International EPD® System. More information at www.environdec.com**

EPD® registration number: **S-P-05654**

PCR identification: **PCR 2012:01 Construction products and construction services (EN 15804:A1) (2.34) & c-PCR-005 Thermal Insulation products (EN 16783**

Product name and manufacturer represented: **Spacesaver and Spacesaver Ready-Cut product family - Saint-Gobain ISOVER UK**
UN CPC CODE: 37990

Owner of the declaration: **Saint-Gobain ISOVER UK**

EPD® prepared by: Yves COQUELET (Saint-Gobain LCA central TEAM, yves.coquelet@saint-gobain.com).

Declaration issued: **2022-02-21,** valid until**: 2027-02-20**

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2012:01 Construction products and construction services, Version 2.33.
PCR review was conducted by: The Technical Committee of the International EPD® System. Review chair: Massimo Marino. The review panel may be contacted via the Secretariat www.environdec.com/contact
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☒ EPD verification
Third party verifier: Marcel Gómez Ferrer Marcel Gómez Consultoria Ambiental (www.marcelgomez.com) Tlf 0034 630 64 35 93 Email: info@marcelgomez.com Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No
https://insulation-uk.com/

Construction Product

Product Description

Saint-Gobain ISOVER UK, which has a manufacturing site situated in Runcorn, utilises a variety of fusion and fiberising techniques to convert Cullet and some natural and abundant raw materials (Sand, Borax, and Feldspar etc.) into a homogeneous melt, which is subsequently fabricated into glass wool fibres. These glass wool fibres are formed into a “mineral wool mat” consisting of a soft, airy structure. The Cullet consists of a minimum of 60% recycled glass and, unlike most other Mineral Wool production facilities, the Runcorn site uses an electric melter and is certified 100% Renewable Electricity.

The most common natural insulator on earth is dry immobile air at 10°C: its thermal conductivity factor, expressed in λ, is 0.025 W/m.K (watts per meter Kelvin degree). The thermal conductivity of glass mineral wool is close to immobile air as its λ (Lambda) varies from 0.032 W/m.K for the most efficient to 0.044 W/m.K for the least.

The glass mineral wool products have an entangled, porous structure: this restricts the movement of air and this delivers the thermal properties. Furthermore, its porous and elastic structure can reduce the transfer of unwanted noise. Isover glass mineral wool also achieves either A1 or A2 Reaction to Fire Classifications.

Glass mineral wool insulation usage is extensive, ranging from use in building insulation (loft, cavity walls) to technical insulation (Industrial facilities, Marine & offshore). It can ensure high levels of comfort, lower energy costs, reduce carbon dioxide (CO_2) emissions, prevent heat loss, reduce noise pollution and be used in Fire mitigation strategies.

The glass mineral wool products manufactured at Saint–Gobain ISOVER UK have an average lifespan of 50 years where installed and protected appropriately, or as long as the insulated building component is part of the building.

Product Contents

Component	% or mass per declared or functional unit of study
Glass Mineral Wool	94%
Binder	6%
Surfacing	None
Packaging	Wood Pallet - 10.2 g per m² of Insulation
	Adhesives - 0.00 g per m² of Insulation
	Polyethylene - 52.84 g per m² of Insulation
	Labels (Paper) - 32.95 g per m² of Insulation

Throughout the life cycle of the product no substance included in the “Candidate List of Substances of Very High Concern (SVHC) for authorisation” under the REACH Regulations is present in these Glass Mineral Wool products above 0.1% of the weight of the product.

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

The glass mineral wool and binder are the two actual components of the Spacesaver Insulation and they summate to 100%. The composition of the Spacesaver insulation (Glass mineral wool and binder) is the same for every thickness and for both the normal and ready–cut format. The packaging per FU differs between the different thicknesses.

Technical Information

Glass Mineral Wool Insulation can serve many purposes within a building, providing thermal and/or acoustic benefits as well as often being used to meet Fire mitigation requirements. Saint–Gobain ISOVER UK produces insulation which can deliver these benefits for many different applications.

The key technical characteristics are detailed in the table below and further information may be found in the product datasheet available on insulation-uk.com, or by contacting Technical Support by email technicalsupport@saint-gobain.com or phone +44 1473 820850.

Spacesaver loft insulation is supplied in a variety of thicknesses, ranging from 100 mm to 200 mm. Moreover, Spacesaver loft insulation is also supplied in a ready-cut format, allowing easy fitting in common joist spacing's within lofts.

Spacesaver technical information

Characteristic	Unit	Spacesaver 100	Spacesaver 150	Spacesaver 170	Spacesaver 200
Thickness	mm	100	150	170	200
Width	mm	1160	1160	1160	1160
Length	mm	12180	8050	7030	5200
Pack Area	m^2	14.13	9.34	8.15	6.03
Thermal Conductivity, λ_D	W/m.K	0.044	0.044	0.044	0.044
Thermal Resistance, R_D	m^2.K/W	2.25	3.4	3.85	4.5
Reaction to Fire		A1	A1	A1	A1

Spacesaver Ready–Cut technical information

Characteristic	Unit	SS Ready - Cut 100 (2 X 580)	SS Ready - Cut 100 (3 X 386)	SS Ready - Cut 150 (2 X 580)	SS Ready - Cut 150 (3 X 386)	SS Ready - Cut 200 (2 X 580)	SS Ready - Cut 200 (3 X 386)
Thickness	mm	100	100	150	150	200	200
Width	mm	2 x 580	3 x 386	2 x 580	3 x 386	2 x 580	3 x 386
Length	mm	12180	12180	8050	8050	5200	5200
Pack Area	m^2	14.1	14.13	9.32	9.34	6.02	6.03
Thermal Conductivity, λ_D	W/m.K	0.044	0.044	0.044	0.044	0.044	0.044
Thermal Resistance, R_D	m^2.K/W	2.25	2.25	3.4	3.4	4.5	4.5
Reaction to Fire	-	A1	A1	A1	A1	A1	A1

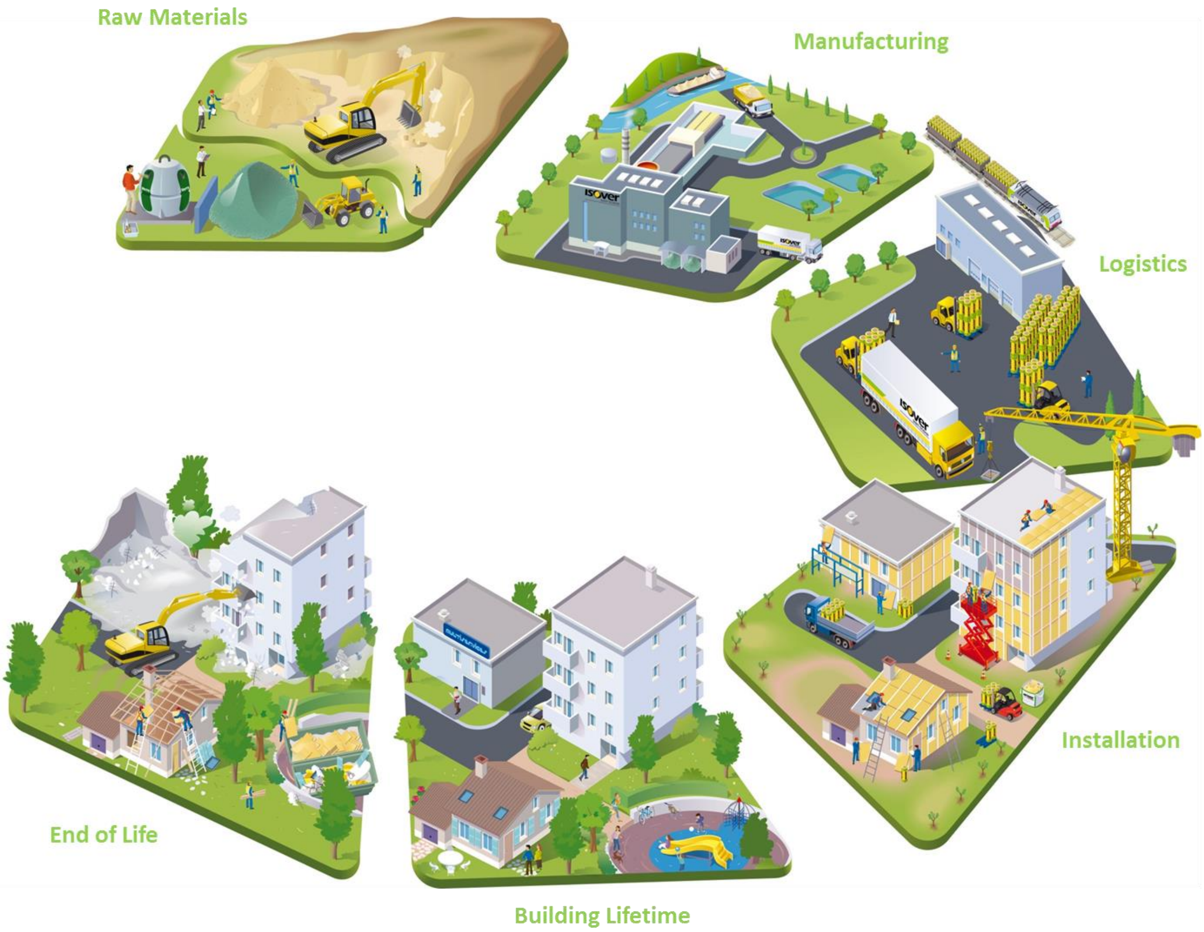
Life Cycle Assessment Calculation Rules

FUNCTIONAL UNIT	The functional unit is 1 m^2 surface of Insulation providing a thermal resistance of R = 2.25 m^2.K/W, whilst ensuring the stipulated product performances. This functional unit is our reference unit for the multiplication factors and is based on the Spacesaver 100 mm thickness.
SYSTEM BOUNDARIES	Cradle to Grave: Mandatory stages = A1 – 3, B1 – 7, C1 – 4.
REFERENCE SERVICE LIFE	50 Years
CUT-OFF RULES	The study covers at least 95% of the materials and energy per module and at least 99% of the total use of materials and energy of each unit process”. In my opinion to say “1% at the unit process level is not correct since it’s 1% of the whole materials and energy use. 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	The allocation of all the production data is based on mass (kg). The modularity and the polluter payer principles have been followed
DATA QUALITY	All the data complies with the EN 15804:2012 + A1:2013 standards regarding geographical, technological and technical relevance. Primary data is obtained from our UK manufacturing site for the period of the 2019 calendar year. A Renewable Standard fuel mix was used to model the electricity for our production site.
BACKGROUND DATA	All the background data was either obtained from Ecoinvent 3.5 or Gabi 2018 databases.

- “EPDs of construction products may be not comparable if they do not comply with EN 15804 or ISO 21930"
- “Environmental Product Declarations within the same product category from different programs may not be comparable”

Life cycle stages

Flow diagram of the Life Cycle



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

Product stage			Construction installation stage		Use stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Construction installation stage	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	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MND

Product stage, A1-A3

The product stage of the mineral wool products is subdivided into 3 modules A1, A2 and A3 respectively “Raw material supply”, “transport” and “manufacturing”.

Description of the stage:

A1, Raw material supply

This module takes into account the extraction and processing of all raw materials and energy which occur upstream to the Spacesaver loft insulation manufacturing process.

A2, Transport to the manufacturing facility

This includes the transport distance of the raw materials to the manufacturing facility via road, boat and/or train. These values are specific unless the raw materials come from multiple suppliers, in which case the values are averaged.

A3, Manufacture of the product

This module covers the manufacturing of the products and any associated packaging/facing. Specifically, it covers the glass production, binder production and glass mineral wool fabrication.

Manufacturing process

The Saint–Gobain ISOVER UK manufacturing facility is managed through an ISO 9001:2015 certified Quality Management System.

The manufacturing process for glass mineral wool insulation is split into the following 7 segments and is the same for every product manufactured at the Saint–Gobain ISOVER UK site.

1. **Raw Material Handling** – The raw materials for glass wool manufacture are received in bulk quantities and stored in silos. According to a particular desired product recipe, the raw materials are weighed and blended well before introduction into the melting unit.

2. **Glass Melting** - In the glass melting furnace, the raw materials introduced from the batch plant are heated to temperatures exceeding 1400°C and are transformed into a homogenous melt through a sequence of chemical reactions.

3. **Fiberising** – The homogenous melt travels through a fore hearth and enters rotary spinners. Glass wool fibres are formed and binder is simultaneously sprayed on these. These fibres fall into a forming chamber and are formed into a mat.

4. **Curing** – The formed mat travels through a curing oven where it reaches a specified temperature to allow the binder to cure and for the mat to reach the desired thickness.

5. **Cutting** – The cured glass mineral wool mat is cut via slitters into either rolls or batts. Any edge trim is recycled back into the process. Facings can be applied at this stage

6. **Packaging** – The products are compressed, packaged and labelled.

7. **Palletisation** - At this stage, the products are combined together and stacked onto pallets where they are wrapped with stretch film. Once the pallets have been wrapped and labelled, they are ready to enter Lorries and be transported to the customer.

Construction process stage, A4-A5

Description of the stage:

The construction process is divided into 2 modules: A4, transport to the building site and A5, installation in the building.

A4, Transport to the building site: This module includes transport from the production gate to the building site.

Transport is calculated on the basis of a scenario with the parameters described in the following table.

Scenario/ Parameter	Value	Assumption
Transport to construction site (A4)	265 km	This distance is the average distance to all of our UK customers and is traversed by truck.
Fuel Type and consumption of fuel by the vehicle used for transportation (A4)	38 Litres / 100 km	The truck uses diesel as the fuel and has an average payload of 24 tonnes.
Capacity Utilisation (A4)	100%	Based on the volume of the truck
Empty returns (A4)	30%	We determined the percentage of empty returns from logistic figures and rounded up to this value.
Bulk density of transported products (A4)	~ 10 – 40 Kg / m^3	This is roughly the average density of products transported in our trucks.
Volume capacity utilisation factor (A4)	1	This value is by default

A5, Installation in the building: The installation stage considers the wastage rate of the product during installation, waste recycling/recovery, water/energy usage and direct emissions.

Installation is calculated on the basis of a scenario with the parameters described in the following table.

Scenario/ Parameter	Value	Assumption
Waste material from installation (A5)	2%	Total amount of material wasted during the installation process
Sorting of waste materials on site for recycling, energy recovery and disposal (A5)	0 kg	Any waste from the product is not sorted on site for recycling/recovery. They are 100 % disposed to landfill.
Water use (A5)	0 m^3	This is no water used at all during the installation phase of the product.
Energy use (A5)	0 kWh / tonne	This is no energy used at all during the installation phase of the product.
Direct emissions to air, soil and water	0 kg	During the installation process, no emissions to the air, soil and water occur.

Use stage (excluding potential savings), B1-B7

Description of the stage:

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**

Description of scenarios and additional technical information:

Once installation is complete, no actions or technical operations are required during the use stages until the end of life stage. Therefore, mineral wool insulation products have no impact (excluding potential energy savings) on this stage.

End-of-life stage C1-C4

Description of the stage:

The end-of-life stage includes the following modules:

- **C1, de-construction, demolition:** The de-construction and/or dismantling of insulation products take part of the demolition of the entire building. In our case, the environmental impact is assumed to be very small and can be neglected.
- **C2, transport to waste processing**: A model is used to assess the environmental impacts associated with transport of insulation waste to landfill.
- **C3, waste processing for reuse, recovery and/or recycling**
- **C4, disposal**

The following scenarios are used to model the end-of-life stage

Scenario/ Parameter	Assumption
Collection process	The entire product, including any surfacing is collected alongside any mixed construction waste
Recovery process	There is no recovery, recycling or reuse of the product once it has reached its end of life phase.
Type of disposal	The product alongside the mixed construction waste from demolishing will go to landfill
Assumptions for transportation to landfill scenario.	We assume that the waste going to landfill will be transported by truck with a 24 tonne payload, using diesel as a fuel consuming 38 litres per 100 km. The distance covered will be 25 km

LCA results

This section will cover the LCA results of both the Spacesaver and Spacesaver Ready–Cut product families. Using specialist LCA software (Gabi), an LCA was calculated for every individual thickness of both of these product families.

Using the LCA results for both the Spacesaver and Spacesaver Ready–Cut product families, a sensitivity analysis was carried out to determine the difference in environmental impacts between the two. It was concluded that the differences were negligible since the sensitivity analysis showed a difference of around 0.01% difference. Therefore, the environmental impact for the same thicknesses (i.e. 100 mm Spacesaver and 100 mm Spacesaver Ready–Cut) in these two product families is taken to be the same.

As this EPD covers a range of thicknesses in the two product families, a multiplication factor was used to determine their individual environmental impacts. In order to calculate the multiplication factors, a reference unit was chosen (Spacesaver 100 mm with an R value = 2.25 m^2.K/W) which also acts as our functional unit. The various impacts for the other thicknesses were compared against this reference unit and a multiplication factor was calculated.

The table below highlights the multiplication factors for each individual thickness in the two product families. In order to determine the environmental impacts associated with a specific product thickness, multiply the LCA results by the corresponding multiplication factor.

Product	Multiplication Factor
Spacesaver 100 mm	1
Spacesaver Ready-Cut 100 mm	1
Spacesaver 150 mm	1.5
Spacesaver Ready-Cut 150 mm	1.5
Spacesaver 170 mm	1.7
Spacesaver 200 mm	2
Spacesaver Ready-Cut 200 mm	2

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

Environmental Impacts

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Global Warming Potential (GWP) - *kg CO_2 equiv/FU*	7.69E-01	1.86E-02	2.08E-02	0	0	0	0	0	0	0	0	1.41E-03	0	1.53E-02	MND
	The global warming potential of a gas refers to the total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas. carbon dioxide. which is assigned a value of 1.														
Ozone Depletion (ODP) *kg CFC 11 equiv/FU*	9.20E-08	2.84E-18	2.56E-09	0	0	0	0	0	0	0	0	2.16E-19	0	8.55E-17	MND
	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life.This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons).which break down when they reach the stratosphere and then catalytically destroy ozone molecules.														
Acidification potential (AP) *kg SO_2 equiv/FU*	2.90E-03	7.76E-05	7.47E-05	0	0	0	0	0	0	0	0	5.81E-06	0	8.73E-05	MND
	Acid depositions have negative impacts on natural ecosystems and the man-made environment incl. buildings.The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production. heating and transport.														
Eutrophication potential (EP) *kg $(PO_4)^{3-}$ equiv/FU*	1.76E-03	1.90E-05	3.87E-05	0	0	0	0	0	0	0	0	1.42E-06	0	9.90E-06	MND
	Excessive enrichment of waters and continental surfaces with nutrients. and the associated adverse biological effects.														
Photochemical ozone creation (POPC) *kg Ethene equiv/FU*	2.67E-04	2.84E-06	6.51E-06	0	0	0	0	0	0	0	0	2.13E-07	0	7.19E-06	MND
	Chemical reactions brought about by the light energy of the sun. The reaction of nitrogen oxides with hydrocarbons in the presence of sunlight to form ozone is an example of a photochemical reaction.														
Abiotic depletion potential for non-fossil resources (ADP-elements) - *kg Sb equiv/FU*	4.49E-05	2.46E-10	8.98E-07	0	0	0	0	0	0	0	0	1.87E-11	0	5.21E-09	MND
Abiotic depletion potential for fossil resources (ADP-fossil fuels) - *MJ/FU*	1.19E+01	2.58E-01	3.14E-01	0	0	0	0	0	0	0	0	1.96E-02	0	2.04E-01	MND
	Consumption of non-renewable resources. thereby lowering their availability for future generations.														

Resource Use

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse. recovery. recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials - *MJ/FU*	8.07E+00	5.93E-03	1.62E-01	0	0	0	0	0	0	0	0	4.51E-04	0	2.68E-02	MND
Use of renewable primary energy excluding renewable primary energy resources used as raw materials - *MJ/FU*	7.97E-01	0	1.59E-02	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) *MJ/FU*	9.66E+00	5.93E-03	1.78E-01	0	0	0	0	0	0	0	0	4.51E-04	0	2.68E-02	MND
Use of non-renewable primary energy excluding non-renewable primary	1.26E+01	2.59E-01	3.29E-01	0	0	0	0	0	0	0	0	1.97E-02	0	2.11E-01	MND
Use of non-renewable primary energy excluding non-renewable primary	7.89E-01	0	1.58E-02	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) - *MJ/FU*	1.34E+01	2.59E-01	3.45E-01	0	0	0	0	0	0	0	0	1.97E-02	0	2.11E-01	MND
Use of secondary material kg/FU	6.03E-01	0	1.21E-02	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels- MJ/FU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels- MJ/FU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water – m^3/FU	1.21E-02	1.98E-06	2.51E-04	0	0	0	0	0	0	0	0	1.50E-07	0	5.31E-05	MND

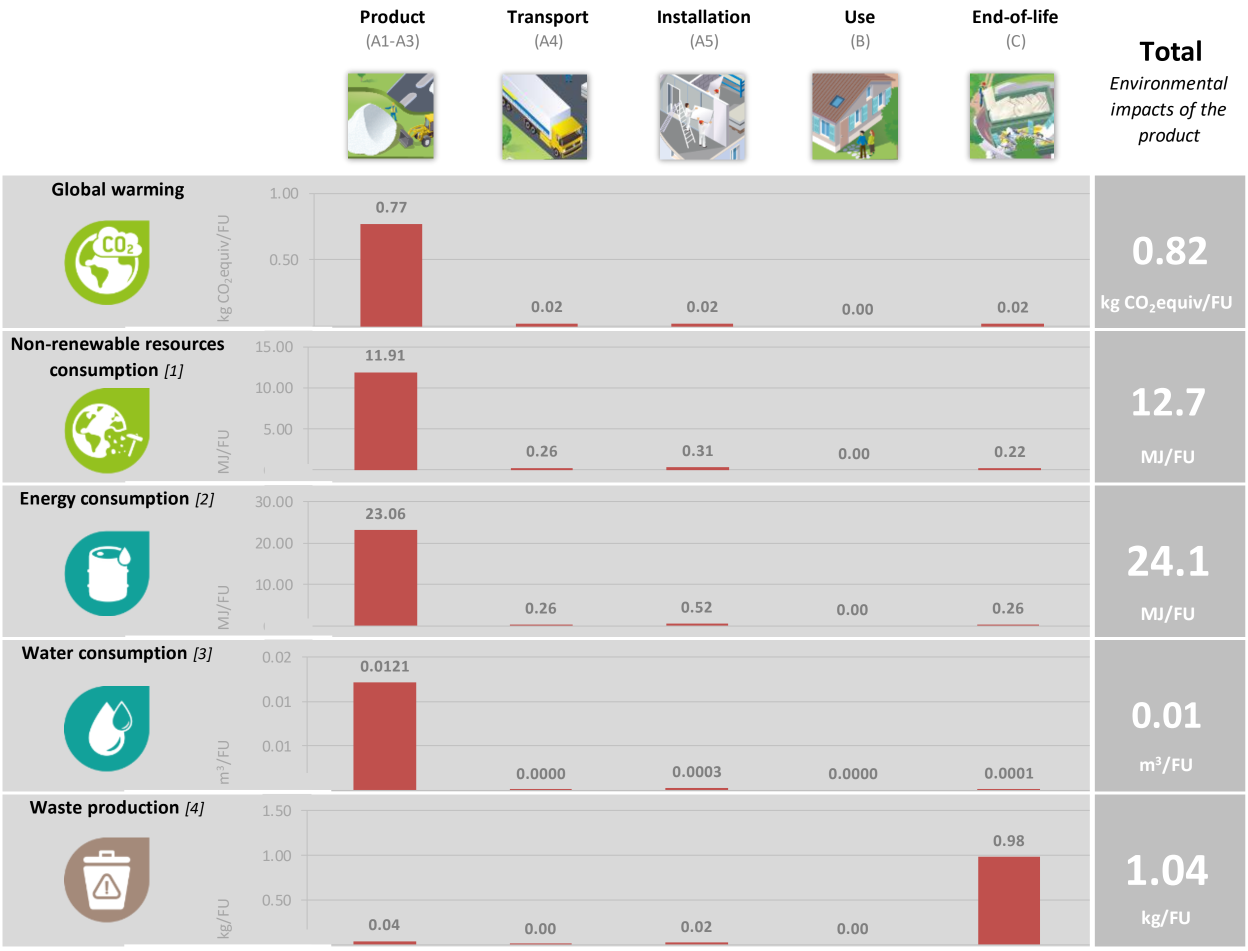
Waste Categories

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				
	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 (kg/FU)	1.56E-09	9.29E-10	1.66E-10	0	0	0	0	0	0	0	0	7.06E-11	0	3.60E-09	MND
Non-hazardous(excluding inert) waste disposed	4.06E-02	3.14E-06	2.19E-02	0	0	0	0	0	0	0	0	2.39E-07	0	9.81E-01	MND
Radioactive waste disposed (*kg/FU)*	2.05E-06	3.02E-07	1.20E-07	0	0	0	0	0	0	0	0	2.30E-08	0	2.80E-06	MND

Output Flows

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse. recovery. recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Components for re-use (*kg/FU)*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling (*kg/FU)*	1.48E-02	0	7.36E-02	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery (*kg/FU)*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy. detailed by energy carrier (*MJ/FU)*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

LCA results interpretation



[1] This indicator corresponds to the abiotic depletion potential of fossil resources.
[2] This indicator corresponds to the total use of primary energy.
[3] This indicator corresponds to the use of net fresh water.

As illustrated above in the above graph, five different impact categories were analysed for each information module.

The impacts associated with Global warming are predominantly seen in the A1 – A3 information module. This stage is the primary source of CO_2 emissions (Combustion of fuel for electricity generation upstream and combustion of natural gas on site). The second highest contribution to global warming from the A4 transport stage is primarily due to fuel consumption.

A similar trend is seen for Non–renewable resource consumption and total primary energy consumption. A1 – A3 information modules account for over 95% of the contribution due to electricity generation and fossil fuel combustion. Once more, the transport stage A4 contributes the second highest to these environmental impacts due to fuel consumption.

Water is only consumed in the A1 – A3 modules and therefore all the environmental impacts are attributed to this stage.

Waste production does not follow the same trend and the primary contribution to this impact is from the end of life module C4. This is because our material once it reaches it end of life is 100% landfilled. The second highest contributor is the A1 – A3 module since we produce waste on site during the manufacture of the product.

Environmental positive contribution & comments

The manufacturing process in Saint–Gobain ISOVER UK uses a minimum of 60% recycled glass that would have otherwise been sent to landfill, therefore eliminating the impact associated with landfill. Furthermore, the lower amount of batch materials we use in contrast to recycled glass means we alleviate the impact associated with extracting and transporting these materials.

All insulation products manufactured in Runcorn are manufactured under Environmental Management System – ISO 14001:2015. Our products also have Zero ODP (Ozone Depletion Potential), GWP < 5 (Global Warming Potential). Moreover, the manufacturing process does not use or contain CFC's, HCFC's or other damaging gases.

References

- ISO 14040:2006: Environmental Management-Life Cycle Assessment-Principles and framework.
- ISO 14044:2006: Environmental Management-Life Cycle Assessment-Requirements and guidelines.
- ISO 14025:2006: Environmental labels and Declarations-Type III Environmental Declarations-Principles and procedures.
- PCR 2012:01 Construction products and construction services (EN 15804:A1) (2.34)
- c-PCR-005 Thermal Insulation products (EN 16783)
- EN 15804:2012+A1:2013: Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
- General Program Instructions for the International EPD® System. version 2.5
- The underlying LCA study
- EN 16783:2017 Thermal insulation products - Product category rules (PCR) for factory made and in-situ formed products for preparing environmental product declarations