



COL·LEGI D'APARELLADORS,
ARQUITECTES TÈCNICS
I ENGINYERS D'EDIFICACIÓ
DE BARCELONA

Product

EXTRUDED POLYSTYRENE BOARD (XPS) FOR THERMAL INSULATION

Owner



Product description

The included product is an average extruded polystyrene board (XPS) for optimal insulation against cold and heat that includes different product families depending on the application.

PCR Reference

PCR for thermal insulation for factory made and in-situ formed products UNE-EN 16783:2017

Production plant

XPS products are produced by Soprema Iberia S.L.U in the plants of:
CM-4006, 45740 Villasequilla, Toledo (España)
Polígono Industrial El Mas Vell, Calle de l'Oli, s/n, 43144 Vallmoll, Tarragona (España)

Validity

From: 29/01/2021 To: 29/01/2026

The validity of DAPcons®.NTe.003 is subject to the conditions of DAPcons® regulations. The relevant version of this DAPcons® is included in the register kept by the CAATEEB; for more information, consult the Program Operator website: www.csostenible.net

ENVIRONMENTAL PRODUCT DECLARATION

EXTRUDED POLYSTYRENE BOARD (XPS) FOR THERMAL INSULATION

EXECUTIVE SUMMARY

<p>PROGRAMME OPERATOR DAPconstrucción®</p> <p>Environmental product declarations of construction sector www.csostenible.net</p>	
<p>Administrator of Programme Operator</p> <p>Col·legi d'Aparelladors, Arquitectes Tècnics de Barcelona i Enginyers de l'Edificació (CAATEEB) Bon Pastor, 5 08021 Barcelona www.apabcn.cat</p>	
<p>Owner of the Declaration</p> <p>Soprema Iberia S.L.U. Polígono Industrial "Can Pelegrí" Carrer del Ferro 7 - 08755 Castellbisbal - España</p>	
<p>Declaration carried out by:</p> <p>Institut de Tecnologia de la Construcció de Catalunya – ITeC Calle Wellington 19 - 08018 Barcelona - España</p>	
<p>Declaration Number</p> <p>DAPcons®.NTe.003</p>	
<p>Declared Product</p> <p>Extruded polystyrene board (XPS) for thermal insulation</p>	
<p>Product description</p> <p>Extruded polystyrene sheet (XPS) for thermal insulation that provide optimal thermal insulation against cold and heat, which makes it a very suitable product for insulating buildings in any climatic zone. It is manufactured in different finishes and cuts on the edges (half wood, tongue and groove, straight cut) according to the application for which it is intended.</p>	
<p>Registration date</p> <p>29/01/2021</p>	
<p>Validity</p> <p>This verified declaration authorises the owner to use the DAPcons eco-label logo. The declaration is applicable exclusively to the product in question and for five years as of the date of registration. The responsible for the information contained in this declaration is: Soprema Iberia S.L.U.</p>	
<p>Endorsed by CAATEEB</p> <p>Celestí Ventura Cisternas. President of the CAATEEB</p>	<p>Endorsed by authorised verifier</p> <p>Helios Pomar Blanco by ReMa Ingeniería S.L. Verifier accredited by the DAPcons® Program</p>
<p>This environmental product declaration complies with standards ISO 14025 and UNE EN 15804 + A1 and contains information of an environmental nature about the life cycle of Extruded polystyrene board (XPS) for thermal insulation manufactured by SOPREMA IBERIA at its plant in Villasequilla, Toledo (España) and Vallmoll, Tarragona (España). This declaration is based on the document PCR for thermal insulation for factory made and in-situ formed products UNE-EN 16783:2017. The environmental product declaration (DAPcons®) may not be comparable to another EPD if it is not based on the UNE EN 15804 + A1 standard</p>	

ENVIRONMENTAL PRODUCT DECLARATION

1. PRODUCT DESCRIPTION AND APPLICATION

Extruded polystyrene board (XPS) that provides an optimal insulation against cold and heat, which makes it a very suitable product for the insulation of buildings in any climate zone. Meets the requirements of UNE-EN 13164.

It is manufactured in different finishes and edge cuts (half wood, tongue and groove, straight cut) according to the application for which it is intended. The declared product is an average product which includes the following products, calculated as the weighted average of the production of the two plants in 2018:

- SOPRA XPS SL 40- 160 mm with half wood cut, for inverted flat decks, floors, buried walls.
- SOPRA XPS CR 40- 160 mm with straight cut, for sloping decks.
- SOPRA XPS TR 40- 160 mm with half wood cut and ribbed finish for sloping decks.
- SOPRA XPS CW 40-160 mm with tongue and groove cut for walls with air chamber.
- SOPRA XPS PM 40-160 mm with a tongue and groove cut for vertical enclosures.
- SOPRA XPS CB 40-160 mm with straight cutting for SATE systems and thermal bridges.
- SOPRA XPS 500 40-160 mm for high resistance floors.
- TECH XPS CT 20-160 mm for the manufacture of sandwich panel in wood, aluminum or other materials.
- TECH XPS CTG 20-160 mm with fluted finish for the manufacture of sandwich panels in wood, aluminium or other materials.
- TECH XPS VIB 26-100 mm for the insulation of refrigerated vehicles and containers.
- TECH XPS BLOCK 20-160 mm for the manufacture of sandwich panels in, aluminium or other materials.



Technical characteristics table of the products studied are included:

Property	Value	Unit	Norm
Composition	Polystyrene: 85 – 90% Nucleant: < 0,5% Flame Retardant: 1.5 – 3% Colorant: < 0,2% Foaming Gases: 6 – 8%		
Density	30 – 40	kg/m ³	
Thickness	20 – 160	mm	EN 823
Length x width	1250 x 600 2600 x 600 Industrial (tailored for the client)	mm	EN 822
Minimum compressive resistance (10% deformation)	250 – 500	KPa	EN 826
Thermal conductivity 10oC	0,033 – 0,035	W/m*K	EN 12667 EN 12939
Thermal resistance	0,60 – 4,55	m ² *K/W	
Water absorption	≤ 0,7	% volume	EN 12087
Reaction to fire	E	Euroclase	EN 13501-1
Application temperature limit	-50/+75	°C	
Thermal coefficient of linear expansion	0,07	mm/m*K	
Capillarity	0		
Surface finish	smooth smooth ribbed without skin		
Bracket	5	mm/m	EN 824
Thickness Tolerance	+2/-2 (e < 50 mm) +3/-2 (50 mm ≤ e ≤ 120) +6/-2 (e > 120 mm)	mm	EN 823
Width & Length tolerance	+/- 8 (l o b ≤ 1500 mm) +/- 10 (l o b > 1500 mm)	mm	EN 822
Lateral finish	half wood Straight edge tongue and groove		

2. LIFE CYCLE PHASES DESCRIPTION

2.1. Manufacture (A1, A2 and A3)

Raw materials (A1 and A2)

The main raw material for XPS products is polystyrene from virgin polystyrene glass and recycled polystyrene chippings (mostly from fish market waste). These materials are transported by road in trucks of 16-32 Tn.

During the manufacturing process of XPS products, it is necessary to add different additives including Flame Retardant, Nucleant and Dye. Different CO₂ technology gases are also added during the process.

All these raw materials have a specific function within the mixture. These materials are transported by road using 16-32 Tn trucks and in some cases by freighter.

Manufacturing (A3)

For XPS production, the following processes are performed:

1. Raw material dosing pump programmed according to product and thickness.
2. Extruder to stir the mixture.
3. Injection of foaming gases with CO₂ technology.
4. Temperature and humidity control (heat exchange).
5. Extruder head that defines the final thickness of the product.
6. Cutting and processing area with chip suction for the reuse of manufacturing waste in the system.
7. Packaging, labelling and palletising area.

Soprema Iberia S.L.U. offers different products according to the finish obtained in the cutting area. These finishes can be, half wood (XPS SL, XPS TR & XPS 500), tongue and groove (XPS CW & XPS PM), Straight edge (XPS CT & XPS CB) and grooved straight edge (XPS CT G). Each product and thickness determines the number of board packed as a unit in the packaging area, labelling and the number of units to be palletised. The pallet used for the products manufactured by Soprema Iberia S.L.U. is manufactured in-house using XPS strips. As the XPS of the pallet can be used as an additional thermal insulator (same technical characteristics), it is not considered as waste at the construction stage.

2.2. Construction (A4 and A5)

Product transport to the building site (A4)

Based on the sales data analysed by the manufacturer of the products, an average distance has been obtained for each manufacturing plant and weighted by the total production of both.

The truck used consumes 3.66E-05 kg of diesel per kgkm.

For maritime transport, an average freighter has been used according to the Ecoinvent database v3.5.

Table 1. Transport scenarios of product to the building site

Destination	Type of transport	Percentage (%)	Average Km
Spain	Truck 16-32 Tn	66,55	460
	Freighter		35
Europe	Truck 16-32 Tn	28,44	1200
	Freighter		15
Rest of the world	Truck 16-32 Tn	5,01	1800
	Freighter		2000
		Total 100%	

Construction and instalation process (A5)

During the installation process of the product and construction no auxiliary materials or energy consumption are required for the most common scenario being a flat deck. For the installation of XPS board in other scenarios as walls, it may require the use of auxiliary materials.

As well it has been taken into account the transport and the logistics of the waste produced by the packaging and the product waste, which have been estimated a 2% according to what it is indicated in the RCP of the UNE-EN 16783 (2017)

2.3. Product use (B1-B7)

USE (B1): In this information module, the environmental impact is 0 as no auxiliary material is required during its lifetime or emits any emissions during use.

MAINTENANCE (B2), REPAIR (B3) and REPLACEMENT (B4): According to the PCR, in common thermal insulation applications, thermal insulating products do not require maintenance, repair or replacement actions during the useful life of the building.

REFURBISHMENT (B5): No rehabilitation action is required during the life of the product.

OPERATIONAL ENERGY USE (B6): According to the PCR, thermal insulating products do not intervene in the determination of the operational use of energy.

OPERATIONAL WATER USE (B7): According to the PCR, thermal insulation products do not intervene in the determination of the operational use of water.

2.4. End-of-life (C1-C4)

DECONSTRUCTION AND DEMOLITION (C1): The environmental impacts attributed to the disassembly of the product at the end of its useful life are negligible as they are a very small part of the demolition of a building.

TRANSPORT TO THE WASTE TREATMENT PLACE (C2): The product waste obtained in the previous phase is transported by 16-32 Tn truck over a distance of 50 km to the waste management company in charge of processing it (50% energy recovery and 50% elimination).

WASTE MANAGEMENT FOR REUSE, RECOVERY AND RECYCLING (C3): The environmental impacts of waste separation management are accounted for in this information module.

FINAL ELIMINATION (C4): The environmental impacts of 50% of the product waste disposal management are accounted for in this information module.

2.5. Benefits and loads beyond the system boundary (D)

The environmental loads and benefits generated by the recycling of XPS waste produced in the Construction, Use and End of Life stages have been accounted for.

3. LIFE CYCLE ASSESSEMENT

The model of the life cycle analysis on which this declaration is based has been made according to the standards UNE-EN ISO 14040 (2006), UNE-EN ISO 14044+A1 and UNE-EN 15804+A1 and the Product Category Rules document of the UNE-EN 16783 standard of September 2017. The CML-IA calculation method has been used, together with the Ecoinvent v3.5 database to obtain the inventory data of the generic processes.

The declaration is of the type “cradle to grave” covering all stages of the life cycle (manufacturing, construction, use and end of life). The specific data on the quantity of raw materials used, their origin and necessary transport, type of packaging, energy consumption during manufacture and transport to the end consumer have been taken from Soprema Iberia S.L.U.’s plants in Villasequilla (Toledo) and Vallmoll (Tarragona) for the year 2018.

3.1. Functional unit

The declared functional unit is 1 m² of 60 mm thick extruded polystyrene board (XPS) with a thermal resistance of 1.80 m²*K/W installed on a flat decks for 50 years.

3.2. System boundary

Table 2. Declared modules

Fabricación			Construction Process Stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw materials supply	Transport	Manufacturing	Transport	Construction – Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy use	Operational water use	De-construction	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	X

X = Included in LCA MND = Module Not Declared

3.3. Data analysis for the life cycle (ACV)

The indicators of environmental impacts and resource use have been calculated with the specific thickness of the functional unit, 1 m² of extruded polystyrene (XPS) board of 60 mm thickness and a thermal resistance of 1,80 m²*K/W. The following table specifies the different conversion factors to use to calculate the indicators of environmental impacts and resource use of all thicknesses marketed by Soprema Iberia S.L.U.

Thickness (mm)	Thermal resistance (m ² *k/W)	Conversion factor
20	0,60	0,33
30	0,90	0,50
40	1,20	0,66
50	1,50	0,83
60	1,80	1,00
70	2,00	1,16
80	2,25	1,33
90	2,55	1,50
100	2,85	1,66
120	3,40	2,00
140	4,00	2,33
160	4,55	2,66

Table 3. Indicators of the environmental impact

Parameter	Unit	Life Cycle Phase							
		Manufacture	Construction		Use	End of life			
		A1-A3	A4	A5	B1-B7	C1	C2	C3	C4
Abiotic Resources Depletion Potential (elements)	kg Sb eq	1,05E-06	3,39E-10	1,81E-08	0,00E+00	0,00E+00	9,47E-11	3,57E-07	9,99E-09
Abiotic Resources Depletion Potential (fossil fuels)	MJ	5,04E+01	1,33E+00	4,36E-02	0,00E+00	0,00E+00	3,68E-01	5,85E-01	2,53E-01
Acidification potential	kg SO ₂ eq	1,11E-02	2,02E-04	2,03E-05	0,00E+00	0,00E+00	4,24E-05	2,79E-04	2,57E-04
Ozone Depletion potential	kg CFC-1 eq	1,32E-07	1,71E-08	4,31E-10	0,00E+00	0,00E+00	4,76E-09	5,23E-09	2,48E-09
Global warming	kg CO ₂ eq	2,92E+00	9,20E-02	7,37E-02	0,00E+00	0,00E+00	2,56E-02	1,74E-01	2,99E+00
Eutrophication	kg (PO ₄) ³⁻ eq	2,82E-03	2,45E-05	1,68E-04	0,00E+00	0,00E+00	5,67E-06	3,52E-04	2,35E-04
Photochemical ozone formation, POCP	kg etileno eq	6,59E-04	1,18E-05	1,62E-06	0,00E+00	0,00E+00	2,89E-06	1,88E-05	3,50E-06

A1. Raw materials supply
A2. Transport
A3. Manufacturing Product
A4. Transport
A5. Construction – Installation process

B1. Use
B2. Maintenance
B3. Repair
B4. Replacement
B5. Refurbishment
B6. Operational Energy use
B7. Operational water use

C1. Decosntruction and demolition
C2. Transport
C3. Waste management for reuse, recovery and recycling.
C4. Disposal

MND. Module not declared

Table 4. Indicators of resources use

Parameter	Unit	Life Cycle Phase							
		Manufacture		Construction		Use	End of life		
		A1-A3	A4	A5	B1-B7	C1	C2	C3	C4
Use of renewable primary energy excluding the resources of non-renewable primary energy used as a raw material	MJ	3,73E+00	3,94E-03	3,67E-03	0,00E+00	0,00E+00	1,10E-03	7,10E-02	3,35E-03
Use of renewable primary energy used as ray material	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
Total use a renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	3,73E+00	3,94E-03	3,67E-03	0,00E+00	0,00E+00	1,10E-03	7,10E-02	3,35E-03
Use of non-renewable primary energy excluding the resources of non-renewable primary energy used as a raw material	MJ	6,35E+01	1,42E+00	5,41E-02	0,00E+00	0,00E+00	3,93E-01	7,70E-01	2,81E-01
Use of non-renewable primary energy used as ray material	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
Total use of non-renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	6,35E+01	1,42E+00	5,41E-02	0,00E+00	0,00E+00	3,93E-01	7,70E-01	2,81E-01
Use of secondary materials	kg	1,32E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	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
Use of non-renewable secondary fuels	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
Net use of fresh water	m³	3,59E-02	1,38E-04	5,46E-05	0,00E+00	0,00E+00	3,84E-05	7,86E-04	6,98E-04
Hazardous waste disposed	kg	1,71E-05	2,51E-07	1,16E-07	0,00E+00	0,00E+00	6,96E-08	1,88E-06	1,00E-06
Non-hazardous waste disposed	kg	6,39E-02	6,05E-05	1,54E-03	0,00E+00	0,00E+00	1,67E-05	1,23E-02	4,53E-02
Radioactive vaste disposed	kg	1,28E-04	9,65E-06	2,67E-07	0,00E+00	0,00E+00	2,68E-06	3,75E-06	5,94E-07
Components for its reutilisation	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
Materials for the recycling	kg	2,97E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for the energetic evaluation	kg	0,00E+00	0,00E+00	4,72E-02	0,00E+00	0,00E+00	0,00E+00	9,42E-01	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	4,50E-01	0,00E+00	0,00E+00	0,00E+00	7,43E+00	0,00E+00

MJ. Net calorific value

A1. Raw materials suply
A2. Transport
A3. Manufacturing Product
A4. Transport
A5. Construction – Installation process

B1. Use
B2. Maintenance
B3. Repair
B4. Replacement
B5. Refurbishment
B6. Operational Energy use
B7. Operational water use

C1. Decosntruction and demolition
C2. Transport
C3. Waste management for reuse, recovery and recycling.
C4. Disposal

3.4. Potential environmental benefits and impacts derived from activities of reuse, recovery and recycling

Table 5. Indicators of impact evolution. Reuse, recovery and recycling

Parameter	Unit expressed by functional unit or declared unit	D.
Potential depletion of abiotic resources (ADP-elements)*	Kg Sb eq	3,24E-09
Potential depletion of abiotic resources (ADP-fossil fuels)*	MJ, net calorific value	-9,03E+00
Potential acidification of the ground and water resources, AP	Kg SO ₂ eq	8,62E-05
Ozone depletion potential, ODP	Kg CFC-11 eq	-6,99E-08
Global warming potential, GWP	Kg CO ₂ eq	3,01E+00
Eutrophication potential, EP	Kg (PO ₄) ₃ eq	5,00E-04
Photochemical ozone creation potential, POCP	Kg ethene eq	-1,91E-05

* ADP-elements: including all the non-renewable abiotic material resources

* ADP-fossil fuels: Including all the fossil resources

Table 6. Life cycle inventory data. Reuse, recovery and recycling

Parameter	Unit expressed by functional unit or declared unit	D.
Use of renewable primary energy, excluding the resources of non-renewable primary energy used as a raw material	MJ	-3,51E-03
Use of renewable primary energy used as raw material	MJ	0,00E+00
Total use a renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	-3,51E-03
Use of non-renewable primary energy, excluding the resources of non-renewable primary energy used as a raw material	MJ	-1,00E+01
Use of non-renewable primary energy used as raw material	MJ	0,00E+00
Total use of non-renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	-1,00E+01
Use of secondary materials	kg	0,00E+00
Use of renewable secondary fuels	MJ	0,00E+00
Use of non-renewable secondary fuels	MJ	0,00E+00
Net use of fresh water	m ³	1,64E-03
Hazardous waste disposed	kg	-9,05E-06
Non-hazardous waste disposed	kg	4,11E-02
Radioactive waste disposed	kg	-3,07E-07
Components for its reutilization	kg	0,00E+00
Materials to recycle	kg	0,00E+00
Materials for the energetic valorization	kg	0,00E+00
Exported energy	MJ	0,00E+00

MJ, net calorific value

3.5. Recommendations of this DAP

Environmental product declarations from different type III eco-labeling systems may not be directly comparable, as the calculation rules may be different. This declaration represents the behavior of XPS board products manufactured by Soprema Iberia S.L.U.

3.6. Cut-off rules

More than 95% of all mass and energy inputs and outputs in the system have been included, leaving out, among others, diffuse emissions at the factory.

3.7. Additional environmental information

The product is defined as a non-hazardous substance in accordance with legislation No. 1907/2006 (REACH) of 1 June 2007, although no SAFETY DATA SHEET is required (MSDS) a web usage and manipulation sheet is available: www.soprema.es

ISO 14001: Production plants certified and implemented the Environmental Management System.

3.8. Other data

Wastes generated from extruded polystyrene board (XPS) during construction are included as non-hazardous waste in the European list of wastes with EWL code 17 06 04 "Insulation materials other than those mentioned in 17 06 01 and 17 06 03.

4. TECHNICAL INFORMATION AND SCENARIOS

4.1. Transport from the factory to the building site (A4)

Parameter	Parameter expressed by functional unit
Type and consumption of fuel or vehicle used	Truck 16.32 Tn: 3.66E-05kg diesel per kgkm
Distance	700 km
Utilization of the vehicle (including the empty return)	100% for road transport (30% empty return) 100% for sea transport
Density of the transported product	30-40 kg/m ³
Factor of calculating the capacity of the volume used	1

4.2. Installation processes (A5)

Parameter	Parameter expressed by functional unit
Auxiliary materials for installation	Not necessary
Water consumption	There is no water consumption
Consumption of other resources	Consumption of other resources is not necessary
Quantitive description of the type of energy and consumption during the installation process	There is no energy consumption during the installation process.
Waste in the construction site, generated by the installation of the product (specify types)	Product waste: 2% Plastic waste: 5.59E-02 kg Energy recovery: 4.72E-02 kg Landfill: 4.72E-02 kg
Material output as a result of the waste management processes in the place of installation. For example: collection for recycling, for energetic recovery and final disposal	Materials and quantities specified in the previous point "Waste at the construction site, generated by the installation of the product (specify by type)"
Emissions to the air, ground or water	No emissions detected

4.3. Reference service life (B1)

Parameter	Parameter expressed by functional unit
Reference service life	50 years
Properties and characteristics of the product	
Requirements (maintenance frequency, ways of using, repair, etc.)	

4.4 Maintenance (B2), repair (B3), replacement (B4) or refurbishment (B5)

Parameter	Parameter expressed by functional unit
Maintenance, for example: cleaning agent, type of surfactant	Does not require maintenance actions
Maintenance cycle	
Auxiliar materials for the maintenance process	
Energy input for the maintenance process	
Net consumption of fresh water during the maintenance or repair process	
Inspection, maintenance or repair process	
Inspection, maintenance or repair cycle	
Auxiliary materials, e.g. lubricant	
Changing of parts during the product life cycle	
Energy input during the process of maintenance, type of energy, e.g. electricity and quantity	
Energy input during the process of reparation, renovation, replacement, if it is applicable and significant	
Loss of material during maintenance or repair	
Service life of the product for inclusion as a basis to calculate the number of times a change is needed in the building	50 years

4.5. Operational use of energy (B6) and water (B7)

Parameter	Parameter expressed by functional unit
Energy type, for example: electricity, natural gas, use of heat for a district	It does not require energy or water consumption.
Output power potential of equipments	
Net consumption of fresh water	
Characteristic representation (energy efficiency, emissions...)	

4.6. End of life (C1-C4)

Process	Parameter expressed for declared unit of the components, products or materials
Collection processes	1,884 kg together with construction waste
Recycling systems	0.942 kg (energy recovery)
Disposal	0,942 kg

5. ADDITIONAL INFORMATION

When used inside buildings, XPS sheets are not exposed to contact with indoor air, they are always covered by other products or systems. However, the emission of volatile organic compounds has been evaluated, which have resulted within the limiting values established in indoor air quality. The emissions have been tested in accordance with the regulations in Germany, France and Belgium. The tests in accordance with German AgBB (2015) and the guidelines of the DIBt (2010), in accordance with the French legislation of 2011 for the determination of the emission class established in Decree No. 2011-321, and Belgian Royal Decree C- 2014/24239. Samples, tests and evaluation carried out in accordance with CEN / TS 16516, ISO 16000-3, ISO 16000-6, ISO 16000-9, ISO 16000-11.

6. PCR AND VERIFICATION

This declaration is based on the Document	
PCR for thermal insulation for factory made and in-situ formed products UNE-EN 16783:2017	
Independent verification of the declaration and data according to ISO 14025 and UNE EN15804 + A1	
<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> External
Independent verifier appointed	
ReMa Ingeniería S.L. Helios Pomar Blanco. Verifier accredited by the DAPcons® Program	
Fecha de la verificación:	
28 / 01 / 2021	
Referencias	
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