

DECLARACIÓN AMBIENTAL DE PRODUCTO ENVIRONMENTAL PRODUCT DECLARATION

DAPcons®.

According to ISO 14025
and UNE EN 15804 + A1



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

Product
Owner
Product description
PCR Reference
Production plant
Validity From: To:

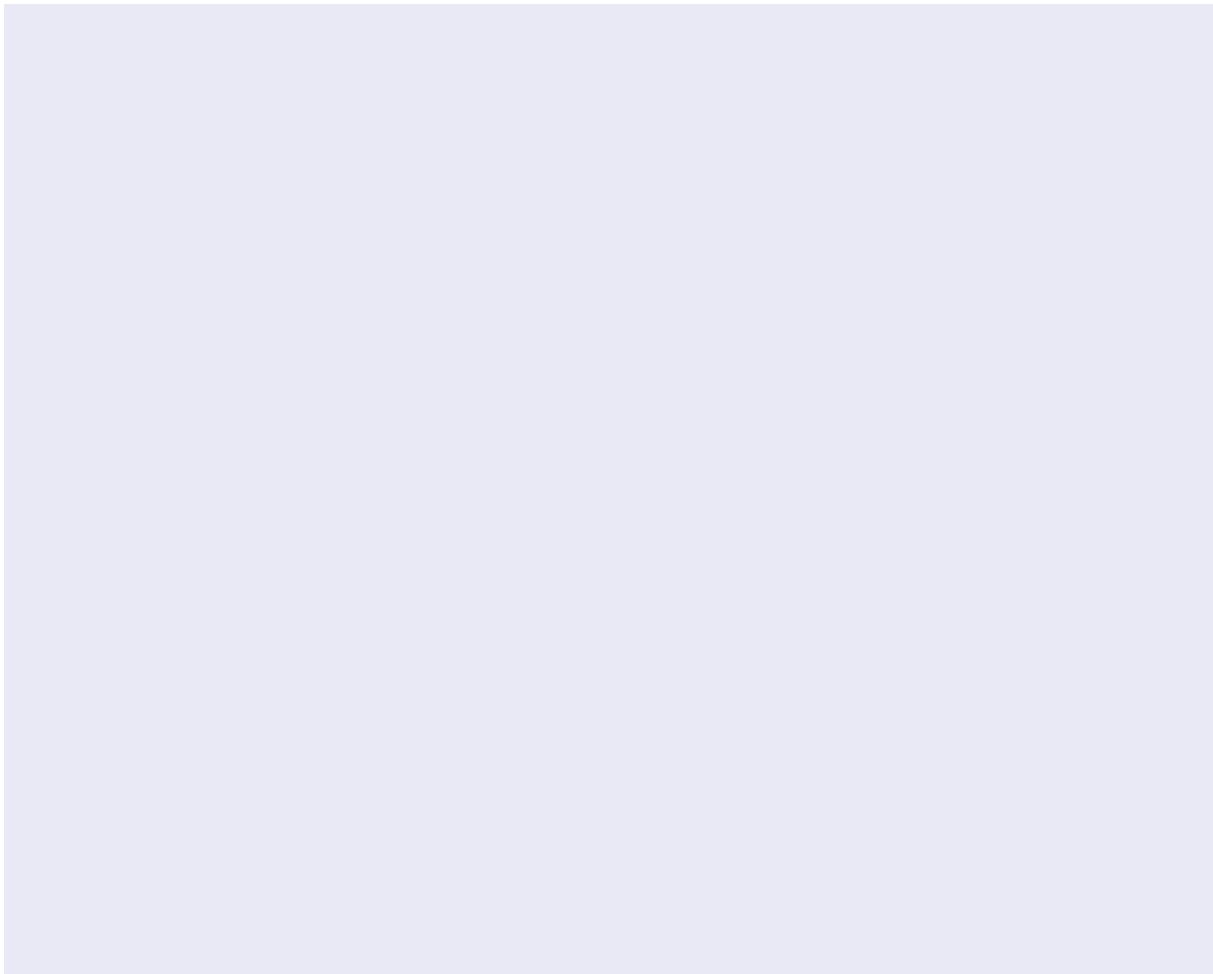
ENVIRONMENTAL PRODUCT DECLARATION

EXECUTIVE SUMMARY

<p>PROGRAMME OPERATOR DAPconstrucción® Environmental product declarations of construction sector www.csostenible.net</p>	
<p>Administrator of Programme Operator 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>Declaration carried out by:</p>	
<p>Declaration Number</p>	
<p>Declared Product</p>	
<p>Product description</p>	
<p>Registration date</p>	
<p>Validity 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:</p>	
<p>Endorsed by CAATEEB</p>	<p>Endorsed by authorised verifier</p>

ENVIRONMENTAL PRODUCT DECLARATION

1. PRODUCT DESCRIPTION AND APPLICATION



XPS CHOVA products.

App	Product
Flat roof	CHOVAFOAM 300M (30mm-100mm)
Inclined cover	CHOVAFOAM 300 R (30mm-100mm)
floors	CHOVAFOAM 300M (30mm-100mm)
“Soils. High resistance and foundations. enclosures verticals and buried walls”	CHOVAFOAM 500M (30mm-100mm)
vertical enclosures	CHOVAFOAM 250 H (30mm-100mm) *
exterior facades	CHOVAFOAM 250 S SATE (30mm-60mm)

*Normal and long

Technical characteristics of the products studied.

Parameter	Worth
Composition	Polystyrene: 96%-97% Nucleant: 0.5%-1% Colorant: no retardant of flame: 0-2.5%
Thickness	30-100mm
Dimensions	1,250 x 600mm 2,600 x 600mm*
Density	30-40kg/m3
Reaction to fire	Euroclass E (UNE-EN 13501-1)
“Water vapor permeability. water vapor transmission	80μ (UNE-EN 12086)
“Water permeability. Water absorption in the long term”	≤ 0.7% (UNE-EN 12086)
Thermal resistance, R	0.94-2.75 K.m2.W-1 (UNE-EN 12667/12939)
Thermal conductivity	0.031-0.036 W/(mK) (UNE-EN 12667)
compressive strength	250-500KPa
“Tensile/flexural strength. Tensile strength perpendicular to the faces	≥900σm TR900 (EN 1607)
“Durability of reaction to fire in relation to exposure to heat or weather, aging/degradation”	NPD
Durability of thermal resistance in relation to exposure to heat or weather, aging/degradation”	NPD
“Durability of the compressive strength in relation to the aging/degradation”	NPD
Products used for installation	None
Product shelf life	50 years

* CHOVA FOAM 250 H long

2. LIFE CYCLE PHASES DESCRIPTION

2.1. Manufacture (A1, A2 and A3)

Raw materials (A1 and A2)

Manufacturing (A3)

2.2. Construction (A4 and A5)

Product transport to the building site (A4)

Table 1. Transport scenarios of product to the building site

Destination	Type of transport	Percentage (%)	Average Km
Spain			
Europe			
Rest of the world			
		Total 100%	

Construction and instalation process (A5)

2.3. Product use (B1-B7)

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

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

3. LIFE CYCLE ASSESSEMENT

3.1.

3.2. System boundary

Table 2. Declared modules

Product stage			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 = Included in LCA MND = Module Not Declared

3.3. Data analysis for the life cycle (ACV)

Table 3. Indicators of the environmental impact

Raw materials supply Manufacturing Product Transport Construction – Installation process Use Maintenance Repair Replacement Refurbishment Operational Energy use Operational water use Decosntruction and dermolition Transport Waste processing Disposal Reuse, recovery, recycling potential

A1. Raw materials supply	B1. Use	C1. Decosntruction and demolition	MND. Module not declared
A2. Transport	B2. Maintenance	C2. Transport	
A3. Manufacturing Product	B3. Repair	C3. Waste management for reuse, recovery and recycling.	
A4. Transport	B4. Replacement	C4. Disposal	
A5. Construction – Installation process	B5. Refurbishment		
	B6. Operational Energy use		
	B7. Operational water use		

Table 4. Indicators of resources use

A1. Raw materials supply	B1. Use	C1. Decostruction and demolition	MND. Module not declared
A2. Transport	B2. Maintenance	C2. Transport	
A3 Manufacturing Product	B3. Repair	C3. Waste management for reuse, recovery and recycling.	
A4. Transport	B4. Replacement	C4. Disposal	
A5. Construction – Installation process	B5. Refurbishment		
	B6. Operational Energy use		
	B7. Operational water use		

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	
Potential depletion of abiotic resources (ADP-fossil fuels)*	MJ, net calorific value	
Potential acidification of the ground and water resources, AP	Kg SO ₂ eq	
Ozone depletion potential, ODP	Kg CFC-11 eq	
Global warming potential, GWP	Kg CO ₂ eq	
Eutrophication potential, EP	Kg (PO ₄) ₃ eq	
Photochemical ozone creation potential, POCP	Kg ethene eq	

* 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	
Use of renewable primary energy used as raw material	MJ	
Total use a renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	
Use of non-renewable primary energy, excluding the resources of non-renewable primary energy used as a raw material	MJ	
Use of non-renewable primary energy used as raw material	MJ	
Total use of non-renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	
Use of secondary materials	kg	
Use of renewable secondary fuels	MJ	
Use of non-renewable secondary fuels	MJ	
Net use of fresh water	m ³	
Hazardous waste disposed	kg	
Non-hazardous waste disposed	kg	
Radioactive waste disposed	kg	
Components for its reutilization	kg	
Materials to recycle	kg	
Materials for the energetic valorization	kg	
Exported energy	MJ	

MJ, net calorific value

3.5. Recommendations of this DAP

3.6. Cut-off rules

3.7. Additional environmental information

3.8. Other data

4. TECHNICAL INFORMATION AND SCENARIOS

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

Parameter	Parameter expressed by declared unit
Type and consumption of fuel or vehicle used	
Distance	
Utilization of the vehicle (including the empty return)	
Density of the transported product	
Factor of calculating the capacity of the volume used	

4.2. Installation processes (A5)

Parameter	Parameter expressed by declared unit
Auxiliary materials for installation	
Water consumption	
Consumption of other resources	
Quantitative description of the type of energy and consumption during the installation process	
Waste in the construction site, generated by the installation of the product (specify types)	
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	
Emissions to the air, ground or water	

4.3. Reference service life (B1)

Parameter	Parameter expressed by declared unit
Reference service life	
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 fdeclared unit
Maintenance, for example: cleaning agent, type of surfactant	
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	

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

Parameter	Parameter expressed by declared unit
Energy type, for example: electricity, natural gas, use of heat for a district	
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	
Recycling systems	
Disposal	

5. ADDITIONAL INFORMATION

6. PCR AND VERIFICATION

This declaration is based on the Document
Independent verification of the declaration and data according to ISO 14025 and UNE EN15804 + A1 <input type="checkbox"/> Internal <input type="checkbox"/> External
Independent verifier appointed
Verification date / /
References

ADMINISTRATOR OF PROGRAMME OPERATOR

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