



# PLA-BASED FOAM WITH BIO-BASED POLYOLS

## Product description

PLA-based foam formulated with bio-based polyols derived from lactic acid, and modified with flame-retardant DOPO-based additives, designed to meet the requirements for application in the formulation of flexible polyurethane foams in construction systems for thermal insulation. This way, the content of bio-based material in the PUR formulation can be considerably increased.

## Applications



Spray-applied thermal insulation solution for building envelopes, walls, and roofs, and core material for sandwich panels. This solution allows for energy-efficient and sustainable construction systems offering enhanced fire resistance and reduced environmental impact.



## Safety data

For safe use of the product, the following precautions are recommended:

- Avoid skin and eye contact. Wear chemical-resistant gloves and protective goggles during application.
- Do not inhale vapours or aerosols. Work in well-ventilated areas; for intensive application, use a respirator with an organic vapour filter (A2 type).
- If accidental contact occurs, wash skin with water and soap; if it reaches the eyes, rinse for 10 minutes and seek medical advice.
- Products must be stored at a temperature between 5 and 35°C. Prevent water from entering the storage place.

PLA foams fully react during foaming, forming an inert solid material. Once cured, no specific hazards are expected.



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## Technical data

Property	Test/Standard	Value
<b>Thickness</b>	EN 822, EN 823, EN 824, EN 825	
<b>Density</b>	UNE-EN ISO 845-2010	50 ± 11 kg/m <sup>3</sup>
<b>Content of biobased</b>		45%
<b>Compressive stress or compressive strength</b>	EN 826	70 ± 11 kPa
		20 ± 4 kPa*
<b>Thermal conductivity</b>	UNE EN 12667:2002	0.034 W/(m·K), 25°C
		0.038 W/(m·K), 25°C*
<b>Water absorption</b>	UNE-EN ISO 29767:2020	56.4 ± 3.9 %
		60.4 ± 2.3 %*
<b>Calorimetric cone test</b>	ISO 5660-1	3.7 s (TTI) 251.15 kW/m <sup>2</sup> (max. HRR) 129.11 kW/m <sup>2</sup> MARHE 444.2 m <sup>2</sup> /m <sup>2</sup> Smoke emission
		4 s (TTI)* 114.6 kW/m <sup>2</sup> (max. HRR)* 50 kW/m <sup>2</sup> MARHE* 425.8 m <sup>2</sup> /m <sup>2</sup> Smoke emission*

\* Obtained values after accelerated aging tests applying cycles of 5 days at 70°C and 60% RH, 1 day at 70°C dry and 1 day at 70°C dry for one month.



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