



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