

MYCOPOR®

PRODUCT TECHNICAL DATA SHEET

MYCOPOR® Mycelium-Based Composite Packaging Material

1. General Description and Intended Use

MYCOPOR® is an innovative, 100% biodegradable and sustainable protective packaging material. The material is produced through the controlled biotechnological growth of mycelium (the root-like network of native fungi), which naturally binds agricultural and wood-industry by-products without the addition of chemical adhesives. It serves as a direct, environmentally friendly alternative to expanded polystyrene (EPS), other plastics and paper.

2. Material Composition and Technical Specifications

Property	Method / Standard	Typical Value / Data
Composition (Matrix)	Visual / Production	Natural agricultural biomass (straw, sawdust, hemp shives) and mycelium
Density	ISO 845	~ 70–120 kg/m ³ (depending on geometry)
Thermal Conductivity (λ)	ISO 8301 / EN 12667	~ 0,035 – 0,05 W/mK (excellent thermal insulation properties)
Fire Resistance	EN 13501-1	Inherently resistant to smouldering, natural self-extinguishing properties
Odour	Internal test	Mild, neutral wood/mushroom odour (after drying, completely deactivated)
Tensile Strength	EN 29766	60 – 200 kPa
Compressive Strength	EN 29469	140 – 450 kPa
Water Absorption	EN 29767	0,8 – 1,5 kg/m ²

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Property	Method / Standard	Typical Value / Data
Sound Absorption Coefficient	EN 11654	0,85 – 0,90 NRC
Sound Insulation	EN 717-1	~ 48 dB (depending on thickness)
Durability and Stability DUR - 2	EN 14506	Meets (construction) requirements
Chemical Safety	Uredba (ES) št. 1907/2006	Free from PFAS, heavy metals, formaldehyde or VOC emissions

3. Sustainability Indicators and Regulatory Compliance

- End of Life: 100% home compostable. The material, when in contact with soil and microorganisms, fully decomposes within 45 to 90 days. It leaves no microplastics and acts as a soil nutrient.
- EU Packaging and Packaging Waste Regulation (PPWR): Fully aligned with the EU's forthcoming circular economy objectives (naturally renewable resource, high circularity).
- Carbon Footprint: Extremely low / negative carbon footprint due to the low-energy growth process at room temperature and carbon sequestration in agricultural biomass.

4. Storage and Handling Instructions

- Storage Conditions: Store in a dry, covered area, protected from direct, prolonged contact with water or high relative humidity (>85%) to preserve structural integrity.
- Shelf Life: Unlimited under dry conditions. The material is thermally treated (dried); therefore, the fungi are completely inactive and the material will not develop mould or rot on its own.

Technical Support Contact:

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