

Technical Datasheet

ISOMAT THERMOSYSTEM EPS WHITE 80

White expanded polystyrene thermal insulation board

Description – Fields of application

ISOMAT THERMOSYSTEM EPS WHITE 80 is produced by expanding polystyrene beads. It is the ideal insulation material for use in external thermal insulation systems. It is also used in the certified external thermal insulation composite systems ISOMAT THERMOSYSTEM CLASSIC, ISOMAT THERMOSYSTEM PREMIUM and ISOMAT THERMOSYSTEM FLEX. It is also suitable for indoor applications.

Board dimensions

1000 mm x 600 mm.

Shelf life– Storage

24 months from production date if stored in original, unopened packaging, in a dark place. Avoid exposure to direct sunlight. If the packaging is torn, the material must be protected from sunlight.

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Declared performance/s				
Essential characteristics		Performance	Test Method	Harmonized Technical Specification
Thermal resistance	Thermal resistance	Table 1	EN 12667	EN 13163:2012 +A1:2015
	Thermal conductivity	0,036 W/(m·K)		
Durability of thermal resistance against heat, weathering, ageing/degradation		Invariant	-	
Reaction to fire		E	EN 13501-1	
Durability of reaction to fire against heat, weathering, ageing/degradation		Invariant	-	
Compressive stress at 10% deformation CS(10)		≥ 80 KPa	EN ISO 29469 (EN 826)	
Tensile strength perpendicular to faces TR		≥ 150 KPa	EN 1607	
Bending strength BS		≥ 125 KPa	EN 12089	
Dimensional stability under constant normal laboratory conditions (23°C / 50% hum.) DS(N)		± 0,2%	EN 1603	
Dimensional stability under specified temperature and humidity conditions (70°C / 90% hum.) DS(70,90)		≤ 1%	EN 1604	
Dimensional tolerances	Thickness T	± 1 mm	EN ISO 29466 (EN 823)	
	Length L	± 2 mm	EN ISO 29465 (EN 822)	
	Width W	± 2 mm	EN ISO 29465 (EN 822)	
	Flatness P	3 mm	EN ISO 29468 (EN 825)	
	Squareness S	± 2 mm/m	EN 824	
Water absorption by total immersion WL(T)		3%	EN ISO 16535 (EN ISO 12087)	
Water absorption by partial immersion WL(P)		0,1 kg/m ²	EN ISO 16535 (EN ISO 12087)	
Water vapour diffusion resistance factor μ		20-40	EN 13163	
Water vapour permeability δ		0,015 – 0,030 [mg/(Pa h m)]	Table F.2	
Release of dangerous substances		NPD	-	

Table 1

Thickness (mm)	20	30	40	50	60	70	80	90	100
R m ² K/W	0,56	0,83	1,11	1,39	1,67	1,94	2,22	2,57	2,78

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