



POLIISO ED

THERMAL INSULATING PANEL MADE UP OF RIGID CLOSED CELL POLYISO (PIR) FOAM EXPANDED BETWEEN TWO SUPPORTS BITUMINATE PAPERFELT



POLIISO® ED is a thermal insulation panel made of a rigid, closed-cell polyiso (polyurethane foam), yellow in color, expanded without the use of CFCs or HCFCs, and enclosed between two layers of mineral-saturated glass fleece. The panels have declared λ_D values of 0.027 W/mK for thicknesses up to 40 mm, 0.026 W/mK for thicknesses from 50 mm to 90 mm, and 0.025 W/mK for greater thicknesses, in accordance with European standard EN 13165. The panels have standard dimensions of 600 × 1200 mm and are available in thicknesses ranging from 30 to 160 mm. **POLIISO® ED** complies with the Minimum Environmental Criteria (CAM).

APPLICATIONS WITH POLIISO® ED: external thermal insulation composite system, pilotis level, warm roof beneath synthetic membrane



CHARACTERISTIC	STANDARD	UNIT	VALUES
Thickness	EN 823	mm	30 ÷ 160
Thickness tolerance class (T2) Thickness < 50 mm Thickness da 50 mm a 75 mm Thickness > 75 mm	EN 823	mm	T2 -2/+2 -3/+3 -3/+5
Length	EN 822	mm	1200
Width	EN 822	mm	600
Length and width tolerance Dimension < 1000 mm Dimension from 1000 mm to 2000 mm Dimension from 2001 mm to 4000 mm Dimension > 4000 mm	EN 13165	mm	-5/+5 -7,5/+7,5 -10/+10 -15/+15
Orthogonality tolerance (S_b)	EN 824	mm/m	5
Flatness tolerance (S_{max}) Length ≤ 2500 mm Area ≤ 0,75 m ² Area > 0,75 m ²	EN 824	mm/m	≤ 5 ≤ 10
Density		kg/m ³	45 +/- 10%
Specific heat		J/kgK	1500

CHARACTERISTIC	STANDARD	UNIT	VALUES	
Thermal conductivity (λ_D) and Thermal resistance (R_D)			λ_D	R_D
thickness 30 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,027	1,11
thickness 40 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,027	1,48
thickness 50 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,026	1,92
thickness 60 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,026	2,31
thickness 60 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,026	2,69
thickness 80 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,026	3,08
thickness 60 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,026	3,46
thickness 100 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,025	4,00
thickness 120 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,025	4,80
thickness 140 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,025	5,60
thickness 160 mm	EN 13165	λ_D : W/mK RD: m ² K/W	0,025	6,40
Compressive stress at 10 % deformation	EN 826	kPa	≥ 150 – CS(10/Y)150	
Tensile strength perpendicular to the faces	EN 1607:2013	kPa	≥ 80 – TR80	
Shear strength	EN 12090:2013	kPa	108	
Shear modulus	EN 12090:2013	kPa	1440	
Anchorage pull-through resistance	EN 16382	N	>1000	
Compressive creoo after 50 years with crushing ≤ 2 %	EN 1609	kg/m ²	≤ 0,11 – WS(P)0,11	
Dimensional stability at 70±2 °C, 90±5% UR, 48±1 ore Changes in thickness Changes in length and width	EN 1604:2013	% %	DS(70,90)4 ≤ 4 ≤ 1	
Dimensional stability at -20±3 °C, 48±5% UR, 48±1 ore Changes in thickness Changes in length and width	EN 1604:2013	% %	DS(-20,-)2 ≤ 2 ≤ 0,5	
Water absorption by immersion (28 days) Thickness < 100 mm Thickness ≥ 100 mm	EN 12087	Vol %	≤ 2 – WL(T)2 ≤ 1 – WL(T)1	
Resistance to water vapor diffusion (μ)	EN 12086:2013		MU 60 ± 5	
Reaction to fire	EN 13501-1	Euroclasse	E	
Limit temperature of use	EN29468:2022	mm	≤ 10 [FW10]	
Fire reaction of roofing systems with external fire exposure.		°C	- 40 / + 110	