POLIISO PLUS

THERMAL INSULATION PANEL MADE OF RIGID, CLOSED-CELL POLYISO (PIR) FOAM, EXPANDED BETWEEN TWO MULTILAYER METALLIC PAPER SUPPORTS

POLIISO® PLUS is a thermal insulation panel made of a rigid, closed-cell, yellow polyiso (expanded polyurethane) foam, expanded without the use of CFCs or HCFCs between two multilayer metallized paper supports. The panels have declared λD values equal to 0.022 W/mK according to the European standard EN 13165, compressive strength values ≥ 150 kPa and are classified as EUROCLASS E fire resistant according to the European standard EN 13501-1. The panels have standard dimensions of 600 x 1200 mm and are available in thicknesses from 20 to 140 mm. POLIISO® PLUS complies with the Minimum Environmental Criteria (CAM).

APPLICATIONS WITH POLIISO® PLUS: Warm roof under bituminous membrane (cold-applied), warm roof under synthetic membrane, green roof, pitched roof under ventilated membrane, cavity wall, residential floor, floor with underfloor heating system.

CHARACTERISTIC	STANDARD	UNIT	VALUES
Thickness	EN 823	mm	20 ÷ 140
Thikness 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
Flatness tolerance(Smax) Lenght ≤ 2500 mm Area ≤ 0,75 m2 Area > 0,75 m2	EN 824	mm/m	 ≤ 5 ≤ 10
Orthogonality tolerance (Sb)	EN 824	mm/m	5
Density		kg/m3	35 +/- 10%
Specific heat		J/kgK	1500
CHARACTERISTIC	**STANDARD**	**UNIT**	**VALUES**

Thermal conductivity (λ_D) and Thermal resistance (R_D)			λ_D	R_D
thickness 20 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	0,91
thickness 30 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	1,36
thickness 40 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	1,82
thickness 50 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	2,27
thickness 60 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	2,73
thickness 80 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	3,64
thickness 100 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	4,55
thickness 120 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	5,45
thickness 140 mm	EN 13165	λ_D: W/mK R_D: m^2K/W	0,022	6,36
Compressive stress at 10 % deformation	EN 826	kPa	≥ 150 – CS(10/Y)150	
Compressive creeo after 50 years with crushing ≤ 2 %	EN 1606:2013	kPa	≥ 25 – CC(2/1,5/50)25	
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±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)	EN 12087	Vol %	≤ 1 – WL(T)1	
Resistance to water vapor diffusion (μ) **Dimension 600 x 1200 mm** **Dimension 1200 x 3000 mm**	EN 12086:2013		MU 125 MU infinito	
Reaction to fire	EN 13501-1	Euroclasse	F	
Limit temperature of use		°C	- 40 / + 110	
VOC (Volatile Organic Compounds)	EN 16516 / ISO 16000	Class/Protocol	A+, Leed, Well, Breeam [...]	