



POLIISO VV HD

THERMAL INSULATION PANEL MADE OF RIGID CLOSED-CELL POLYISO (PIR) FOAM, EXPANDED BETWEEN TWO SATURATED GLASS VEIL FACINGS



POLIISO® VV HD is a thermal insulation panel made of rigid closed-cell polyiso foam (expanded polyurethane), yellow in color, expanded without the use of CFCs or HCFCs, sandwiched between two saturated glass veil facings. The panels declare thermal conductivity values (λ_D) 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 the European standard EN 13165, compressive strength values ≥ 200 kPa and are fire classified EUROCLASSE E 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® VV HD complies with the Minimum Environmental Criteria (CAM).

APPLICATIONS WITH POLIISO® VV HD:

Recommended: Insulated roof under bituminous membrane, insulated roof under synthetic membrane, insulated garden roof, metal roof (metal deck), ventilated pitched roof under membrane.

Alternatives: non-usable inverted roof, usable inverted roof, industrial flooring.

CHARACTERISTIC	STANDARD	UNIT	VALUES
Thickness	EN 823	mm	20 ÷ 140
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 $\leq 0,75$ m ² Area > 0,75 m ²	EN 824	mm/m	≤ 5 ≤ 10
Density		kg/m ³	44 +/- 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 RD: m2K/W	0,027	0,74
thickness 30 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,027	1,11
thickness 40 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,027	1,48
thickness 50 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,026	1,92
thickness 60 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,026	2,31
thickness 70 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,026	2,69
thickness 80 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,026	3,08
thickness 90 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,026	3,46
thickness 100 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,025	4,00
thickness 120 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,025	4,80
thickness 140 mm	EN 13165	λ_D : W/mK RD: m2K/W	0,025	5,60
Compressive stress at 10 % deformation	EN 826	kPa	$\geq 200 - CS(10/Y)200$	
Durability of compressive strength against ageing/degradation	EN 1606:2013	kPa	$< 2.0 - CC(2/1,5/50)25$	
Tensile strength perpendicular to the faces	EN 1607:2013	kPa	$\geq 50 - TR 50$	
Dimensional stability at 70 $\pm$ 2 °C, 90 $\pm$ 5% UR, 48 $\pm$ 1 ore Changes in thickness Changes in length and width	EN 1604:2013	% %	DS(70,90)4 ≤ 4 ≤ 1	
Dimensional stability at -20 $\pm$ 3 °C, 48 $\pm$ 5% UR, 48 $\pm$ 1 ore Changes in thickness Changes in length and width	EN 1604:2013	%	DS(-20,-)2 ≤ 2 $\leq 0,5$	
Water absorption by immersion (28 days) Thickness < 100 mm Thickness $\geq$ 100 mm	EN 12087	Vol %	$\leq 2 - WL(T)2$ $\leq 1 - WL(T)1$	
Resistance to water vapor diffusion (μ)	EN 12086:2013		MU 60 $\pm$ 5	
Reaction to fire	EN 13501-1	Euroclasse	E	
Limit temperature of use		°C	- 40 / + 110	

Thermal resistance values are not rounded.

The values in the technical data sheet are subject to change without notice.

