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 (λD) 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: Warm roof under bituminous membrane, warm roof under synthetic membrane, warm green roof, metal deck roof, pitched roof under ventilated membrane, non-accessible inverted roof, accessible

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
Orthogonality tolerance (S_b)	EN 824	mm/m	5
Flatness tolerance (S_{max}) Length ≤ 2500 mm Area ≤ 0,75 m2 Area > 0,75 m2	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	λD: W/mK RD: m2K/W	0,027	0,74
thickness 30 mm	EN 13165	λD: W/mK RD: m2K/W	0,027	1,11
thickness 40 mm	EN 13165	λD: W/mK RD: m2K/W	0,027	1,48
thickness 50 mm	EN 13165	λD: W/mK RD: m2K/W	0,026	1,92
thickness 60 mm	EN 13165	λD: W/mK RD: m2K/W	0,026	2,31
thickness 70 mm	EN 13165	λD: W/mK RD: m2K/W	0,026	2,69
thickness 80 mm	EN 13165	λD: W/mK RD: m2K/W	0,026	3,08
thickness 90 mm	EN 13165	λD: W/mK RD: m2K/W	0,026	3,46
thickness 100 mm	EN 13165	λD: W/mK RD: m2K/W	0,025	4,00
thickness 120 mm	EN 13165	λD: W/mK RD: m2K/W	0,025	4,80
thickness 140 mm	EN 13165	λD: W/mK RD: m2K/W	0,025	5,60
Compressive stress at 10 % deformation	EN 826	kPa	≥ 200 – CS(10/Y)200	
Durability of compressive strength against ageing/degradation	EN 1606:2013	kPa	< 2.0 – CC(2/1,5/50)30	
Tensile strength perpendicular to the faces	EN 1607:2013	kPa	≥ 50 – TR 50	
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		°C	- 40 / + 110	