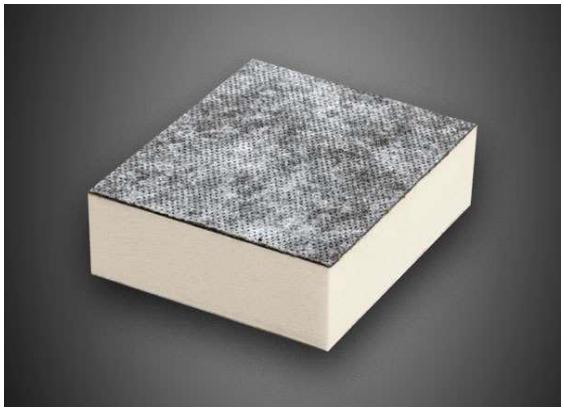
POLIISO SB HD

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



POLIISO® SB DH is a thermal insulation panel made up of a rigid closed-cell polyiso (expanded polyurethane) foam, yellow in colour, expanded without the use of CFC or HCFC between two embossed aluminum supports. The panels declare λD values equal to 0,027 W/m·K for thicknesses up to 40 mm, λD = 0,026 W/m·K for thicknesses from 50 mm to 90 mm, λD = 0,025 W/m·K for greater thicknesses, according to the European standard EN 13165, compressive strength values ≥ 150 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 30 to 160 mm. **POLIISO® SB HD** complies with the Minimum Environmental Criteria (CAM).

APPLICATIONS WITH POLIISO® SB HD: Warm roof under bituminous membrane, Warm garden roof, Pitched roof under ventilated membrane

CHARACTERISTIC	STANDARD	UNIT	VALUES
Thickness	EN 823	mm	30 ÷ 160
Thikness tolerance class (T2) Thickness < 50 mm Thickness da 50 mm a 75 mm Thickness > 75 mm	EN 823 EN 13165	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 EN 822	mm	-5/+5 -7,5/+7,5 -10/+10 -15/+15
Orthogonality tolerance (S_b)	EN 824 EN 13165	mm/m	5
Flatness tolerance (S_{max}) Length ≤ 2500 mm Area ≤ 0,75 m2 Area > 0,75 m2	EN 825 EN 13165	mm/m	≤ 5 ≤ 10
Density		kg/m^3	51 +/- 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 EN 12667	λD: W/Mk - RD: m2K/W	0,027	1,11
thickness 40 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,027	1,48
thickness 50 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,026	1,92
thickness 60 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,026	2,31
thickness 70 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,026	2,69
thickness 80 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,026	3,08
thickness 90 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,026	3,46
thickness 100 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,025	4,00
thickness 120 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,025	4,80
thickness 140 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,025	5,60
thickness 160 mm	EN 13165 EN 12667	λD: W/Mk - RD: m2K/W	0,025	6,40
Compressive stress at 10 % deformation	EN 826	kPa	≥ 150 – CS(10/Y)150	
Durability of compressive strength against aging/degradation	EN 1606:2013		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±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	
Fire reaction of roofing systems with external fire exposure.	CEN/TS 1187		Broof (t2)*	

*contact the technical office for further details