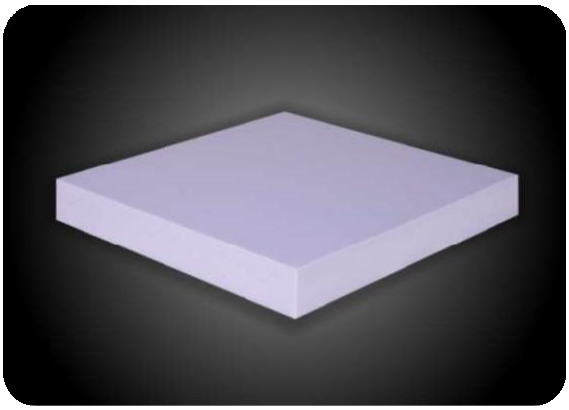
X-FOAM HBD

EXTRUDED POLYSTYRENE BOARD

[XPS - without HCFC - without HFC]



X-FOAM® HBD is a thermal insulation sheet made of indigo-coloured single-layer extruded polystyrene, with extrusion skin and 4 straight edges. The sheets declare compressive strength values ≥ 300 kPa, and have a width of 600 mm, length of 1250 mm and thicknesses available from 30 to 100 mm. **X-FOAM® HBD** is fire classified EUROCCLASS E according to the European standard EN 13501-1. **X-FOAM® HBD** complies with the Minimum Environmental Criteria (CAM).

APPLICATION WITH X-FOAM® HBD: inverted roof not practicable, inverted roof practicable, inverted garden roof, pitched roof over ventilated membrane, residential floor, floor with heating system.

CE

CHARACTERISTIC	STANDARD	UNIT	VALUES
Thicknesses	EN 823	mm	30 - 100
Thickness tolerances Th. < 50 mm Th from 50 mm to 100 mm	EN 823 EN 13164	mm	T1 -2/+2 -2/+3
Length	EN 822	mm	1250
Width	EN 822	mm	600
Length (l) and width (b) tolerances	EN 13164 EN 822	mm	l o b ≤ 1500: +/- 8 l o b > 1500: +/- 10
Orthogonality tolerance (Sb)	EN 824 EN 13164	mm/m	5
Flatness tolerance (Smax)	EN 825 EN 13164	mm/m	6
Density		kg/m^3	33 +/- 10%
Specific heat		J/kgK	1450

CHARACTERISTIC	STANDARD	UNIT	VALUES	
Thermal conductivity (λ_D) and Thermal resistance (R_D)			λ_D	R_D
Thickness 30 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,031	0,97
Thickness 40 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,032	1,25
Thickness 50 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,033	1,52
Thickness 60 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,033	1,82
Thickness 80 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,032	2,50
Thickness 100 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,033	3,03
Compressive stress at 10 % deformation	EN 826	kPa	≥ 300 – CS(10/Y)300	
Compressive creeo after 50 years with crushing ≤ 2 %	EN 1606	kPa	CC(2/1,5/50)120	
Dimensional stability at 70° C and 90% UR. Changes in thickness, length and width	EN 1604	%	≤ 5 – DS(70,90)	
Deformation behavior. Condition test 70° C, 168 h, 40 kPa	EN 1605	%	≤ 5 – DLT(2)5	
Water absorption by immersion (28 days)	EN 12087	Vol %	≤ 0,7 – WL(T)0,7	
Water absorption by diffusion (28 days)	EN 12088	Vol %	≤ 3% – WD(V)3 sp.< 60 ≤ 2% – WD(V)2 sp. 60 ≤ 1% – WD(V)1 sp.> 60	
Resistance to water vapor diffusion (μ) Th. 30 mm Th. 40 mm to 100 mm	EN 12086		MU 150 MU 100	
Frost behavior (freeze - thaw alternation) after water absorption by long-term diffusion	EN 12091	Vol %	≤ 1 – FTCD1	
Reaction to fire	EN 13501-1	Euroclasse	E	
Limit temperature of use		°C	+75	
Closed cell average		%	> 96	
VOC (Volatile Organic Compounds)	EN 16516 / ISO 16000	Class/Protocol	A+, Leed, Well, Breeam	