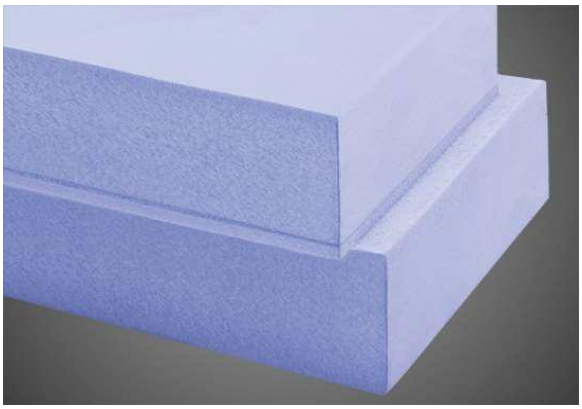
X-FOAM HBT700

EXTRUDED POLYSTYRENE BOARD
[XPS - without HCFC - without HFC]



X-FOAM® HBT700 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 ≥ 700 kPa, and have a width of 600 mm, length of 1250 mm and thicknesses available from 50 to 240 mm. **X-FOAM® HBT700** is fire classified EUROCCLASS E according to the European standard EN 13501-1. **X-FOAM® HBT500** complies with the Minimum Environmental Criteria (CAM).

APPLICATION WITH X-FOAM® HBT700: inverted roof not practicable, inverted roof practicable, inverted garden roof, pitched roof over ventilated sheath, underground wall, insulation under load, foundation slab, inter-storey attic, floor with heating system, industrial and cold room floor.

CHARACTERISTIC	STANDARD	UNIT	VALUES
Thicknesses	EN 823	mm	50 - 240
Thickness tolerances Th from 50 mm to 120 mm Th from 140 mm to 240 mm	EN 823 EN 13164	mm	T1 -2/+3 -2/+6
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	40 +/- 10%
Average closed cell		%	>96
Specific heat		J/kgK	1450
Dimensional stability at 70°C and 90% RH Changes in thickness, length and width	EN 1604	%	≤ 5 – DS(70,90)

CHARACTERISTIC	STANDARD	UNIT	VALUES	
Thermal conductivity (λ_D) and Thermal resistance (R_D)			λ_D	R_D
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
Thickness 120 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,033	3,64
Thickness 140 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,034	4,12
Thickness 160 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,034	4,71
Thickness 180 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,034	5,29
Thickness 200 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,034	5,88
Thickness 220 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,035	6,29
Thickness 240 mm	EN 13164 EN 12667	λ_D: W/mK R_D: m^2K/W	0,035	6,86
Compressive stress at 10 % deformation	EN 826	kPa	≥ 700 – CS(10/Y)700	
Compressive creeo after 50 years with crushing ≤ 2 %	EN 1606	kPa	CC(2/1,5/50)250	
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. 50 mm to 240 mm	EN 12086		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	