

STIFERENE E500

DESCRIPTION

STIFERITE E500 is an insulation board of extruded polystyrene without skin.

MAIN APPLICATIONS

Insulation of flat roofs
Insulation of floors
Insulation of walls

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERENE E500** in extruded polystyrene (XPS) of thickness...(*) has:

Declared thermal conductivity: $\lambda_D = \dots$ **W/mK (EN 13164)**
Compressive strenght: **minimum value = 500 kPa (EN 826)**
Tensile strength perpendicular of faces minimum value \geq **100 kPa (EN 1607)**
Water vapour diffusion resistance factor: $\mu =$ **80-250 (EN 12086)**
Water absorptin by total immersion: **WL < 0.7 % (EN 12087)**
Freeze thaw resistance: maximum value **FTZ = 1 % (EN 12091)**
Euroclass reaction to fire: **E (EN 11925-2)**

Product of Company certified according to UNI EN ISO 9001:2000 specifications, with CE conformity mark on the whole range.

(*) Not stated parameters change according to thickness. For introducing the values corresponding to the used thickness, please use the specifications indicated on this technical sheet.

Characteristics and performances

Isolamento Termico

Characteristics [Standard]	Description	Symbol [Units]	Value									
			Some characteristics depend on the thickness (mm)									
			-	-	40	50	60	80	100	-	-	-
Declared thermal conductivity [UNI EN 13164]	Value determinad at 10 °C Thickness from 60 to 120mm	λ_D [W/mk]	0.034					0.036				
Declared thermal trasmittance	$U_D = \lambda_D / d$	U_D [W/m ² K]	-	-	0.85	0.68	0.59	0.45	0.36	-	-	-
Declared thermal resistance	$R_D = d / \lambda_D$	R_D [m ² K/W]	-	-	1.18	1.47	1.76	2.22	2.78	-	-	-
Compressive strenght [EN 826]	Value determinad at 10% deformation	$\sigma_{10} \sigma_m$ [kPa]	-	-	500	500	500	500	500	-	-	-

For other characteristics see back →

Other information	To obtain further technical data call green number 800840012		
Technical data sheet	Stiferite STIFERENE E500	Rev. 7 24/10/2011	Author: F. Raggiotto
			Verified: L. Tolin

Technical data sheet

STIFERENE E500

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Characteristics and performances

Characteristics [Standard]	Description	Symbol [Units]	Value									
			Some characteristics depend on the thickness (mm)									
			-	-	40	50	60	80	100	-	-	-
Dimensional stability under specified temperature and umidity [EN 1604]	48h (±1) a 23°C (±2) e 90% UR (±5)	DS(TH) [% dimensions]	-	-	5	5	5	5	5	-	-	-
		[% thickness]	-	-	5	5	5	5	5	-	-	-
Dimensional stability under specified compressive load and temperature condition [EN 1605]	40kPa Temp. (70±1)°C Time (168±1)h	DLT(2)5 [% dimensions]	-	-	5	5	5	5	5	-	-	-
Nominal thickness [EN 823]		d _N [mm]	production from 40 to 100 mm									
Copressive creep [EN 1606]	year 50 anni load 175kPa	CC(2/1.5/50)175 [%] deformazione	2									
Tensile strength perpendicular of faces [EN 1607]		δ _{mt} [kPa]	≥ 100									
Euroclass reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Class	Euroclass	E									
Freeze thaw resistance [12091]	Value	FT2 [%]	≤ 1									
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	80-250									
Water absorption by diffusion [EN 12088]	Value	WD(V) [%] Thick. 50 mm	5									
		WD(V) [%] Thick.100 mm	1.5									
Water absorption by total immersion [EN 12087]	Total immersion for 28 days	WL [%]	Less then 0.7% _w									
Linear thermal expansion coefficient [UNI 6348]	α	mm/MK	0.07									
Limit temperature for using [EN ISO 10456]	Value	[°C]	-50/+75									
	Value	[kJ/(kg K)]	1450									

Tolerances and notes

Tolerances [UNI EN 13165]	Thickness	T1 [mm]	<50 ±2 mm		from 50 to 120 +3/-2 mm		>120 +8 /-2 mm	
	Dimensions		< 1000 ±8 mm	from 1000 to 2000 ±10 mm	from 2000 to 4000 ±10 mm	> 4000 ±10 mm		
Notes	stability to the temperature	The limit temperature in use for the board is between -50°C and +75°C						

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