

STIFERENE E300

DESCRIPTION

STIFERITE E300 is an insulation board of extruded polystyrene without skin.

MAIN APPLICATIONS

Insulation of roofs
Insulation of floors
Insulation of walls

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERENE E300** in extruded polystyrene (XPS) of thickness...(*) has:

Declared thermal conductivity: $\lambda_D = \dots$ W/mK (EN 13164)
Compressive strength: **minimum value = 300 kPa (EN 826)**
Water vapour diffusion resistance factor: $\mu = 80-250$ (EN 12086)
Water absorption by total immersion: **WL < 0.7 % (EN 12087)**
Water absorption by diffusion: **WD = ... % (EN 12088)**
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)									
			20	30	40	50	60	70	80	90	100	120
Declared thermal conductivity [UNI EN 13165 annex A e C]	Value determined at 10 °C Thickness ≤ 60 mm	λ_D [W/mk]	0,034									
Declared thermal conductivity [UNI EN 13165 annex A e C]	Value determined at 10 °C Thickness from 70 to 120mm	λ_D [W/mk]	0,036									
Declared thermal transmittance	$U_D = \lambda_D / d$	U_D [W/m ² K]	1.70	1.13	0.85	0.68	0.60	0.51	0.45	0.40	0.36	0.30
Declared thermal resistance	$R_D = d / \lambda_D$	R_D [m ² K/W]	0.59	0.88	1.18	1.47	1.67	1.94	2.22	2.50	2.78	3.33
Compressive strength [EN 826]	Value determined at 10% deformation	$\sigma_{10} \text{ } \sigma_m$ [kPa]	300	300	300	300	300	300	300	300	300	300

For other characteristics see back →

Other information	To obtain further technical data call green number 800840012			
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Technical data sheet

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Characteristics and performances

Characteristics [Standard]	Description	Symbol [Units]	Value									
			Some characteristics depend on the thickness (mm)									
			20	30	40	50	60	70	80	90	100	120
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	5	5	5	5	5
		[% thickness]	5	5	5	5	5	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	5	5	5	5	5
Nominal thickness [EN 823]		d _N [mm]	production from 20 to 120 mm									
Copressive creep [EN 1606]	year 50 anni load 125kPa	CC(2/1.5/50) ¹²⁵ [%] deformazione	2.0									
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	3									
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									

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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