STIFERITE Srl
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Technical data sheet

GT

DESCRIPTION

STIFERITE GT is an height performance insulation board with a rigid polyisocyanurate polyiso foam core, blowing without CFC or HCFC, coverd on both side with Duotwin® facing.

MAIN APPLICATIONS

Insulation of roofs
Insulation of floors
Insulation of walls

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERITE GT** in polyiso rigid foam (PIR) of thickness…(*), covered on both sides with Duotwin® facing, has:

Declareted thermal conductivity: **λ_D= 0.024 W/mK (EN 13165 Annessi A e C)**
Compressive strenght: **minimum value = … kPa (EN 826)**
Water vapour diffusion resistance factor: **μ = 148 (EN 12086)**
Water vapour diffusion resistance: **Z = 21 m^2/hPa (EN 12086)**
Water absorptin by total immersion: **WL < 1 % (EN 12087)**
Euroclass reaction to fire: **F (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]	Describtion	Symbol [Units]	Value Some characteristis depend on the thickness (mm)									
			20	30	40	50	60	70	80	90	100	120
Average initial thermal condictivity [EN 12667]	Value determinad at 10 °C	$\lambda_{90/90,I}$ [W/mK]	**0,022**									
Declared thermal conductivity [UNI EN 13165 annex A e C]	Value determinad at 10 °C C	λ_D [W/mk]	**0,024**									
Declared thermal trasmittance	$U_D = \lambda_D / d$	U_D [W/m^2 K]	**1.20**	**0.80**	**0.60**	**0.48**	**0.40**	**0.34**	**0.30**	**0.27**	**0.24**	**0.20**
Declared thermal resistance	$R_D = d / \lambda_D$	R_D [m^2 K/W]	**0.83**	**1.25**	**1.67**	**2.08**	**2.50**	**2.92**	**3.33**	**3.75**	**4.17**	**5.00**
Compressive strenght [EN 826]	Value determinad at 10% deformation	σ_{10} o σ_m [kPa]	150	150	140	150	150	150	130	130	130	130
Board density	Average value with facing caracteristics	ρ [Kg/m^3]	36									
Nominal thickness [EN 823]		d_N [mm]	production from 20 to 120 mm									

For other characteristics see back →

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Characteristics [Standard]	Describtion	Symbol [Units]	Value Some characteristis 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 70°C (±2) e 90% UR (±5)	DS(TH) [% dimensions]	1	1	1	1	1	1	1	1	1	1
		[% thickness]	5	4	4	4	4	4	4	4	4	4
	48h (±1) a -20°C (±3)	[% dimensions]	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5
		[% thickness]	1	1	1	1	1	1	1	1	1	1
Euroclass reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Class	Euroclass	F									
Euroclass reaction to fire [EN 11925 -2]	Foam	Euroclass	E									
Specific heat capacity	Value	Cp [J/kg°C]	1453									
Acoustic isolation to wall [UNI EN ISO 140-3] [UNI EN ISO 717-1]	Stratigraphy: ○ 15 mm plaster ○ Brick from 12 mm ○ STIFERITE GT from 40 mm ○ Air from 10 mm ○ Brick from 8 mm ○ 15 mm plaster	R_w [dB]	54									
Acoustic isolation to wall [UNI EN ISO 140-3] [UNI EN ISO 717-1]	Stratigraphy: ○ 15 mm plaster ○ Brick from 12 mm ○ STIFERITE GT from 50 mm ○ Brick from 12 mm ○ 15 mm plaster	R_w [dB]	53									
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	148 ± 24									
Water vapor diffusion resistance [EN 12086]	Value	Z [m^2/hPa]	21 ± 3									
Water absorption [EN 12087]	Total immersion for 28 days	WL [%]	Less then 1%$_w$									

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Tolerances and notes

Tolerances [UNI EN 13165]	Thickness	T2 [mm]	<50 ±2 mm	from 50 to 75 ±3 mm	>75 +5 /-2 mm	
	Dimensions		< 1000 ±5 mm	from 1000 to 2000 ±7,5 mm	from 2000 to 4000 ±10 mm	> 4000 ±15 mm
Notes	stability to the temperature	Stiferite panels are used in a range of continuous temperatures normally included between -40 °C e +110 °C. During short time they can resist also to temperatures till + 200 °C, or corresponding to the temperature of fused, without particular problems. Long exposures to the temperatures could cause deformations to the foam or to the coats, but without causing sublimation or fusion. and some other reactions to fire are characteristics connected with the kind of used panel.				
	Resistance to the torch for bituminous membrane application	The board is not usable for directly torch. For torch application use Stiferite GT3, GT4 and GT5.				
	Aspect	Any possible little areas of non-adhesion between coats and foam are originated by the production process and don't prejudice in any way the physical-mechanical properties of the panels.				