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Technical data sheet

Ai8

DESCRIPTION

STIFERITE Ai8 is an height performance insulation board with a rigid polyisocyanurate polyiso foam core, blowing without CFC or HCFC, coverd on both faces with embossed aluminium 80µm thickness.

MAIN APPLICATIONS

Under floor insulation
Ventilated wall insulation
Vapour proof wall insulation
Industrial insulation

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERITE Ai8** in polyiso rigid foam (PIR) of thickness…(*), covered on both sides with embossed aluminium 80µm thickness, has:

Declareted thermal conductivity: **λ_D= 0.028 W/mK (EN 13165 Annessi A e C)**
Compressive strenght: **minimum value = … kPa (EN 826)**
Water vapour diffusion resistance factor: **µ = ∞ (EN 12086)**
Water absorptin by total immersion: **WL < 1 % (EN 12087)**
Euroclass reaction to fire: **D (EN 13823)**

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	-
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**	**-**
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**	**-**

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	-
Compressive strenght [EN 826]	Value determinad at 10% deformation	σ_{10} o σ_m [kPa]	160	150	150	150	150	150	150	150	150	-
Dimensional stability under specified temperature and umidity [EN 1604]	48h (±1) a 70℃ (±2) e 90% UR (±5)	DS(TH) [% dimensions]	1	1	1	1	1	1	1	1	1	-
		[% thickness]	6	5	4	4	4	4	4	4	4	-
	48h (±1) a -20℃ (±3)	[% dimensions]	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	-
Nominal thickness [EN 823]		d_N [mm]	production from 20 to 100 mm. Available on order until 120 mm									
Board density	Average value with facing caracteristics	ρ [Kg/m^3]	42									
Euroclass reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Vertical and horizontal meetline not protected	Euroclass	D s2 d0									
British reaction to fire [BS 476]	[BS476: parte 6:1989]	Class	0									
	[BS476: parte 7:1997]	Class	1									
	[BS476: parte 6/7]	Class	0									
Specific heat capacity	Value	Cp [J/kg℃]	1349									
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	Endless									
Water absorption [EN 12087]	Total immersion for 28 days	WL [%]	Less then 1%$_w$									

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 ℃ e +110 ℃. During short time they ca n resist also to temperatures till + 200 ℃, or corresponding to the temperature of fu sed bitumen, without particular problems. Long exposures to the temperatures could cause deformations to the foam or to the coats, but without causing sublimation or fusion. Resistance to the torch and some other reactions to fire are characteristics connected with the kind of used panel.				
	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.				