

ISOVENTILATO

DESCRIPTION

STIFERITE ALI is an height performance insulation board with a rigid polyisocyanurate polyiso foam core, blowing without CFC or HCFC, covered on one side with mineral fiber glass and on one side with laminglass. Laminglass gives waterproof property (h>3 m) and permeable to vapour (WDD = 620; $\eta = 43$; $s_d = 0.04$). Isoventilato board has two wooden (OSB3) laths along the entire length upper face.

MAIN APPLICATIONS

Ventilated and micro ventilated, under plate and undulated roof insulation

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERITE ALI** in polyiso rigid foam (PIR) of thickness...(*), covered on one side with mineral fiber glass and on one side with laminglass. Isoventilato board has two wooden (OSB3) laths along the entire length upper face. Characteristics and performances:

Declared thermal conductivity: $\lambda_D = \dots$ W/mK (EN 13165 Annex A e C)

Weight percentage of recycled material: **2.67 – 2.30 %**

Compressive strength at 10% deformation: **minimum value = ... kPa (EN 826)**

Compressive strength at 2% deformation: **minimum value = ... kg/m² (EN 826)**

Water vapour diffusion resistance factor: **$\mu = 68$ (EN 12086)**

Water vapour diffusion resistance: **$Z = 9.6$ m²hPa/mg (EN 12086)**

Tensile strength perpendicular to faces: **$\sigma_{mt} > 70$ kPa**

Flatness after one-sided wetting: **$FW \leq 10$ mm (EN 13165)**

Water absorptin by total immersion: **$W_{it} < 2$ % (EN 12087)**

Water absorptin by partial immersion: **$W_{sp} < 0.2$ kg/m² (EN 1609)**

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)										
			-	50	60	70	80	90	100	120	130	140	
Average initial thermal conductivity [EN 12667]	Value determinad at 10 °C	$\lambda_{90/90,1}$ [W/mK]	0,024										
Declared thermal conductivity [UNI EN 13165 annex A e C]	Value determinad at 10 °C C	λ_D [W/mk]	0,028 thickness 50 – 70										
			0,026 thickness 80 – 140										
Declared thermal trasmittance	$U_D = \lambda_D / d$	U_D [W/m ² K]	-	0.56	0.47	0.40	0.33	0.29	0.26	0.23	0.20	0.19	
Declared thermal resistance	$R_D = d / \lambda_D$	R_D [m ² K/W]	-	1.79	2.14	2.50	3.03	3.49	3.85	4.29	5.00	5.38	

For other characteristics see back →

Other information	To obtain further technical data call green number 800840012		
Technical data sheet	Stiferite ISOVENTILATO	Rev. 11 20/01/2011	Author: F. Raggiotto
			Verified: L. Tolin

Technical data sheet

ISOVENTILATO

Characteristics and performances

Characteristics [Standard]	Description	Symbol [Units]	Value										
			Some characteristics depend on the thickness (mm)										
			-	50	60	70	80	90	100	120	130	140	
Project thermal conductivity [UNI EN 12667]	Value determined at 20 °C and 50 % RH	λ_U [W/mk]	0,026 thickness 80 - 120										
Board density	Average value with facing characteristics	ρ [Kg/m ³]	43 ± 1.5										
Nominal thickness [EN 823]		d_N [mm]	production from 50 to 140 mm										
Compressive strength [EN 826]	Value determined at 10% deformation	$\sigma_{10} \sigma_m$ [kPa]	-	140	150	140	140	140	140	140	140	140	140
Compressive strength [EN 826]	Value determined at 2% deformation	σ_2 [kPa]	-	5000	5000	6000	5500	6000	6000	6000	6000	6000	6000
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]	-	6	6	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	E										
Specific heat capacity	Value	C_p [J/kg K]	1729										
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	68 ± 9										
Water vapor diffusion resistance [EN 12086]	Value	Z [m ² hPa/mg]	9.6 ± 1.3										
Tensile strength perpendicular to faces [EN 1607]	Value	σ_{mt} [kPa]	More than 70										
Flatness after one-sided wetting [EN 13165]	Value	FW [mm]	≤ 10										
Water absorption [EN 12087]	Total immersion for 28 days	W_{it} [%]	Less than 2% _w										
Water absorption [EN 1609]	Partial immersion	W_{ip} [kg/m ²]	Less than 0.2										
Weight percentage of recycled material	The variation depends on the thickness	%	2.67 – 2.30										

For other characteristics see back →

Other information	To obtain further technical data call green number 800840012		
Technical data sheet	Stiferite ISOVENTILATO	Rev. 11 20/01/2011	Author: F. Raggiotto
			Verified: L. Tolin

Technical data sheet

ISOVENTILATO

Pag. 3/3

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
Notes	stability to the temperature	<p>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 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.</p>			
	Aspect	<p>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.</p>			

Other information	To obtain further technical data call green numer 800840012			
Technical data sheet	Stiferite ISOVENTILATO	Rev. 11 20/01/2011	Author: F. Raggiotto	Verified: L. Tolin