

AV4

DESCRIPTION

STIFERITE AV4 is an high performance insulation board manufactured from CFC or HCFC free closed cell rigid polyisocyanurate polyiso foam. It's covered on one side with saturated fiber glass and on one side with embossed aluminium 40µm thickness.

MAIN APPLICATIONS

Under floor insulation
Ventilated wall insulation
Cavity wall insulation where need vapour proof property

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERITE AV4** in polyiso rigid foam (PIR) of thickness...(*), covered on one side with saturated fiber glass and on one side with embossed aluminium 40µm thickness, has:

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

Weight percentage of recycled material: **4.62 – 3.27 %**

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: **$\mu > 89900$ (EN 12086)**

Water vapour diffusion resistance: **$Z = 8.0 \text{ m}^2 \text{ hPa/mg}$ (EN 12086)**

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

Water absorption by total immersion: **$W_{it} < 1 \%$ (EN 12087)**

Water absorption by partial immersion: **$W_{sp} < 0.2 \text{ kg/m}^2$ (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.

(*Parameters change according to panel thickness. To determine 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	-	
Average initial thermal conductivity [EN 12667]	Value determined at 10 °C	$\lambda_{90/90,1}$ [W/mK]	0,024										
Declared thermal conductivity [UNI EN 13165 annex A e C]	Value determined at 10 °C C	λ_D [W/mk]	0,028 thickness 20 - 70										
			0,026 thickness 80 - 120										
Declared thermal transmittance	$U_D = \lambda_D / d$	U_D [W/m ² K]	1.40	0.93	0.70	0.56	0.47	0.40	0.33	0.29	0.26	-	
Declared thermal resistance	$R_D = d / \lambda_D$	R_D [m ² K/W]	0.71	1.07	1.43	1.79	2.14	2.50	3.03	3.49	3.85	-	

For other characteristics see back →

Other information	To obtain further technical data call green numer 800840012		
Technical data sheet	Stiferite AV4	Rev. 5 01/04/2016	Author: F. Raggiotto Verified: L. Tolin

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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	-	
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]	37 ± 1.5										
Nominal thickness [EN 823]		d_N [mm]	production from 20 to 60 mm. Available on order until 120 mm										
Compressive strength [EN 826]	Value determined at 10% deformation	$\sigma_{10} \text{ o } \sigma_m$ [kPa]	160	140	160	160	160	160	150	150	150	-	
Compressive strength [EN 826]	Value determined at 2% deformation	σ_2 [kg/m ²]	5000	6000	5000	5000	6000	6000	5000	6000	6000	6000	
Dimensional stability under specified temperature and umidity [EN 1604]	48h (±1) a 70°C (±2) e 90% RH (±5)	DS(TH) [% dimensions]	2	1	1	1	1	1	1	1	1	-	
		[% thickness]	7	6	5	5	5	5	5	5	5	-	
	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	-	
		[% thickness]	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]	1425										
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	> 89900										
Flatness after one-sided wetting [EN 13165]	Value	FW [mm]	≤ 10										
Water absorption [EN 12087]	Total immersion for 28 days	WL [%]	Less than 1% _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	%	4.62 – 3.27										

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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
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>			

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