

Technical data sheet

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ISOCANALE ALC

DESCRIPTION

STIFERITE ISOCANALE ALC is an height performance insulation board with a rigid polyisocyanurate polyiso foam core, blowing without CFC or HCFC, covered on both side with 80µm embossed aluminium.

MAIN APPLICATIONS

For the construction of air distribution ducts

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

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

Thermal conductivity: $\lambda_i = 0.022 \text{ W/mK}$ (EN 12667)

Weight percentage of recycled material: **10.40 – 8.31 %**

Compressive strenght: **minimum value = ... kPa** (EN 826)

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

Water absorptin by total immersion: **WL < 1 %** (EN 12087)

Water absorptin by partial immersion: **W_{sp} < 0.1 kg/m²** (EN 1609)

Euroclass reaction to fire: **...** (EN 13823)

British reaction to fire: **0 (BS 476:parte 6/7)**

Italian reaction to fire: **0-2 (DM 26.06.84)**

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	25	30	-	-	-	-	-	-	-
Average initial thermal conductivity [EN 12667]	Value determinad at 10 °C	λ_i [W/mK]	0,022									
Declared thermal trasmittance	$U_i = \lambda_i / d$	U [W/m ² K]	110	0.88	0.73	-	-	-	-	-	-	-
Declared thermal resistance	$R_i = d / \lambda_i$	R [m ² K/W]	0.91	1.14	1.36	-	-	-	-	-	-	-
Foam density	Average value	ρ [Kg/m ³]	48 ± 3									
Nominal thickness [EN 823]		d_N [mm]	production from 20 to 30 mm									
Compressive strenght [EN 826]	Value determinad at 10% deformation	$\sigma_{10} \text{ o } \sigma_m$ [kPa]	200	200	200	-	-	-	-	-	-	-
Specific heat capacity	Value	C_p [J/kg°C]	1302									
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	Endless									

For other characteristics see back →

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Characteristics and performances

Characteristics [Standard]	Description	Symbol [Units]	Value Some characteristics depend on the thickness (mm)									
			20	25	30	-	-	-	-	-	-	-
Dimensional stability under specified temperature and humidity [EN 1604]	48h (±1) a 70°C (±2) e 90% UR (±5)	DS(TH) [% dimensions]	1	1	1	-	-	-	-	-	-	-
		[% thickness]	4	4	4	-	-	-	-	-	-	-
	48h (±1) a -20°C (±3)	[% dimensions]	0,5	0,5	0,5	-	-	-	-	-	-	-
		[% thickness]	1	1	1	-	-	-	-	-	-	-
Euroclass reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Vertical and horizontal meetline not protected	Euroclass	D s2 d0 thickness 20 mm									
			C s2 d0 thickness 30 mm									
Euroclass reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	meetline protected	Euroclass	B s2 d0 thickness 20 – 30 mm									
British reaction to fire [BS 476]	[BS476: parte 6:1989]	Class	0									
	[BS476: parte 7:1997]	Class	1									
	[BS476: parte 6/7]	Class	0									
Italian reaction to fire [DM 26.06.84]		Class	0-2									
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 0.1									
Weight percentage of recycled material	The variation depends on the thickness	%	10.40 – 8.31									

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 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.						

Other information	To obtain further technical data call green numer 800840012			
Technical data sheet	Stiferite ISOCANALE ALC	Rev. 10 01/07/2010	Author: F. Raggiotto	Verified: L. Tolin