

Technical data sheet

Pag. 1/2

ISOCANALE ALE

DESCRIPTION

STIFERITE ISOCANALE ALE is an height performance insulation board with a rigid polyisocyanurate polyiso foam core, blowing without CFC or HCFC, covered on one side with 80µm embossed aluminium and one side with 200µm embossed aluminium.

MAIN APPLICATIONS

For the construction of air distribution ducts

GUIDELINE FOR DRAFTING OF TECHNICAL SPECIFICATIONS*

Thermal insulation **STIFERITE ISOCANALE ALE** in polyiso rigid foam (PIR) of thickness...(*), covered on one side with embossed aluminium 80µm thickness and one side with embossed aluminium 200µm thickness, has:

Thermal conductivity: $\lambda_i = 0.022 \text{ W/mK}$ (EN 12667)
Weight percentage of recycled material: **16.71 – 13.04 %**
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: $W_{sp} < 0.1 \text{ kg/m}^2$ (EN 1609)
Euroclass reaction to fire: **D** (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	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]	1.10	0.73	-	-	-	-	-	-	-	-
Declared thermal resistance	$R_i = d / \lambda_i$	R [m ² K/W]	0.91	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	$\sigma_{10} \text{ } \sigma_m$ [kPa]	200	200	-	-	-	-	-	-	-	-
Specific heat capacity	Value	C_p [J/kg°C]	1237									
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	Endless									

For other characteristics see back →

Other information	To obtain further technical data call green numer 800840012			
Technical data sheet	Stiferite ISOCANALE ALE	Rev. 8 01/07/2010	Author: F. Raggiotto	Verified: L. Tolin

Technical data sheet
ISOCANALE ALE

Pag. 2/2

Characteristics and performances

Characteristics [Standard]	Description	Symbol [Units]	Value Some characteristics depend on the thickness (mm)									
			20	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	-	-	-	-	-	-	-	-
		[% thickness]	4	4	-	-	-	-	-	-	-	-
	48h (±1) a -20°C (±3)	[% dimensions]	0,5	0,5	-	-	-	-	-	-	-	-
		[% thickness]	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	%	16.71 – 13.04									

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 ca n resist also to temperatures till + 200 °C, 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.						

Other information	To obtain further technical data call green numer 800840012			
Technical data sheet	Stiferite ISOCANALE ALE	Rev. 8 01/07/2010	Author: F. Raggiotto	Verified: L. Tolin