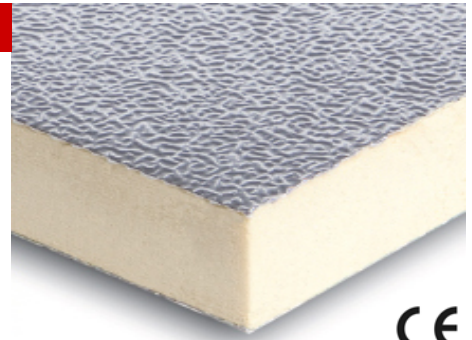


Technical Data Sheet

Ai



Description

Ai4 is a high performance insulation board with a rigid polyisocyanurate polyiso foam core, blown without using CFC or HCFC, and covered on both faces with embossed aluminum 40µm thickness.

Main Applications

- Under floor insulation
- Ventilated wall insulation (in between walls, *Dobblu*)
- Vapor proof wall insulation
- Industrial insulation

Characteristics and performance

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]	0.022										
Declared thermal conductivity [UNI EN 13165 annex A & C]	Value determined at 10 °C	λ_D [W/mk]	0.024										
Declared thermal transmittance	$U_D = \lambda_D / d$	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	-	
Compressive strength [EN 826]	Value determined at 10% deformation	$\sigma_{10} \text{ o } \sigma_m$ [kPa] (Tons/m ²)	160 (16)	150 (15)	150 (15)	150 (15)	150 (15)	150 (15)	150 (15)	150 (15)	150 (15)	-	
Dimensional stability under specified temperature and humidity [EN 1604]	48h (±1) at 70°C (±2) & 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) at -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	-
Nominal thickness [EN 823]		d_N [mm]	production from 20 to 100 mm										

Board density	Average value with facing characteristics	ρ [Kg/m ³]	40
Euroclass reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Vertical and horizontal meetline not protected	Euroclass	D s2 d0
Specific heat capacity	Value	Cp [J/kg°C]	1392
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	> 89900
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
	Length and breath		< 1000 ±5 mm	from 1000 to 2000 ±7,5 mm	from 2000 to 4000 ±10 mm	> 4000 ±15 mm
Notes	Temperature range	Ai panels are used in a range of continuous temperatures normally included between -40°C and +110°C. For a short period of time they can resist to temperatures up to +200 °C, equivalent to the temperature of melt bitumen, without particular problems. Long exposures to the temperatures could cause deformations to the foam or to its coat, but without causing sublimation or fusion. Resistance to the direct flame and some other reactions to fire are characteristics connected with the kind of material (see Euro class).				
	Visual aesthetics	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.				

The manufacturer is certified according to UNI EN ISO 9001:2000 specifications, and all products are CE certified