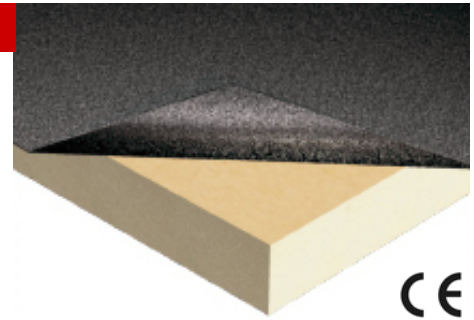


Technical Data Sheet

GT5



Description

GT5 is a high performance insulation sandwich board made with GT, a rigid polyisocyanurate polyiso foam core, blown without the use of CFC or HCFC. Each side is covered with Duotwin® facing, and on one side is torch bonded to a polyester reinforcement bituminous waterproofing membrane (unit weight 4.5 kg/m²) with slate finish. The board sides have 10 cm of membrane selvage, which is used to weld the panels together.

Main Applications

Thermal insulation and waterproofing base sheet of flat and pitched roof

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	120
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	0.20
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	5.00
Compressive strength [EN 826]	Value determined at 10% deformation	$\sigma_{10} \text{ o } \sigma_m$ [kPa] (Tons/m ²)	150 (15)	150 (15)	140 (14)	150 (15)	150 (15)	150 (15)	130 (13)	130 (13)	130 (13)	130 (13)
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	1	1	1	1	1	1	1
		[% thickness]	6	5	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	-
Nominal thickness [EN 823]		d_N [mm]	production from 20 to 120 mm									

Board density	Average value with facing characteristics	ρ [Kg/m ³]	36
Euro class reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Class	Euro class	F
Euroclass reaction to fire [EN 11925 -2]	Foam	Euro class	E
Specific heat capacity	Value	C_p [J/kg°C]	1453
Acoustic isolation to wall [UNI EN ISO 140-3] [UNI EN ISO 717-1]	Stratigraphy: ○ 15 mm plaster ○ Brick from 12 mm ○ R_w [dB] GT from 40 mm ○ Air from 10 mm ○ Brick from 8 mm ○ 15 mm plaster	R_w [dB]	54
Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	148 ± 24
Water vapor diffusion resistance [EN 12086]	Value	Z [m ² /hPa]	21 ± 3
Water absorption [EN 12087]	Total immersion for 28 days	WL [%]	Less then 1% _w

Polyester reinforcement bituminous waterproofing membrane with slate finish

Characteristics [Standard]	Description	Symbol [Units]	Value
Mass [EN 1849-1]		[Kg/m ²]	4.5
Tensile strength [EN 12311-1]	Longitudinal	[N/5 cm]	400
	Transversal		300
Elongation at break [EN 12311-1]	Longitudinal	[%]	35
	Transversal		35
Tear resistance [EN 12310-1]	Longitudinal	[N]	130
	Transversal		130
Cold flexibility [EN 1109]		[° C]	- 5
Heat resistance [EN1110]		[° C]	110

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	<p>The GT 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.</p> <p>Long exposures to the temperatures could cause deformations to the foam or to its coat, but without causing sublimation or fusion.</p> <p>Resistance to the direct flame and some other reactions to fire are characteristics connected with the kind of material (see euro class).</p>				
	Visual aesthetics	<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>				

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