

Technical Data Sheet

GemaTherm X3



Description

The Gematherm x3 panel is a high performance insulation board made from high density, closed structured cell extruded polystyrene, blown without the use of CFC or HCFC. Which conforms to EN 13164, and is CE marked

Main Applications

Insulation of roofs, under the screed (*that il-kontra bejt*)
 Insulation of floors under load
 Insulation of internal walls
 Insulation of external walls (must be plastered)

Characteristics and performance

Characteristics [Standard]	Description	Symbol [Units]	Value							
			Some characteristics depend on the thickness (mm)							
			30	40	50	60	80	100	120	140
Average initial thermal conductivity [EN 12667]	Value determined at 10°C after 25 years of aging	$\lambda_{90/90,1}$ [W/mK]	0.034		0.035	0.036		0.037	0.038	
Declared thermal resistance	$R_D = d / \lambda_D$	R_D [m ² K/W]	0.85	1.15	1.40	1.65	2.20	2.70	3.15	3.65
Compressive strength [EN 826]	Value determined at 10% deformation	$\sigma_{10} \sigma_m$ [kPa] (Tons/m ²)	250 (25)			300 (30)				
Sides traction resistance [EN 1607]	Value	[kPa] (Tons/m ²)	TR400 \geq 400 kPa (40)							
Dimensional stability under specified temperature and humidity [EN 1604]	48h (± 1) and 70°C (± 2) at 90% UR (± 5)	DS(TH) [% dimensions]	5	5	5	5	5	5	5	5
		[% thickness]	5	5	5	5	5	5	5	5
Nominal thickness [EN 823]	Value	d_N [mm]	production from 30 to 140 mm							
Euro class reaction to fire [EN 13501-1] [EN 11925 -2] [EN 13823 (SBI)]	Class	Euro class	E							

Water vapor diffusion resistance factor [EN 12086]	Value	μ (MU)	>200
Water absorption [EN 12087]	Total immersion for 28 days	WL [%]	Less than 0.7% _w
Freeze-Thaw resistance [EN 12091]	Class		FT2

Tolerances and Notes

Tolerances [UNI EN 13165]	Thickness	T1 [mm]	<50 ±2 mm		from 50 to 140 ±3 mm	
	Length and breath		600 ±3 mm	1250 ±5 mm	2500 ±10 mm	2900 ±10 mm
Notes	Temperature range	The boards can be used in a constant temperature range of between -50° C and +75° C				

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