isolparma
RIGID FOAM

Insulating and Waterproofing Roofing Board

EPS TAPERED BOARDS

The Isolparma EPS Tapered Board is an insulating and waterproofing roofing component made of an Expanded Polystyrene Board cut to shape from blocks, torch-bonded in a factory controlled environment to a polymer-modified bituminous membrane of choice

Production range

The Isolparma EPS Tapered Board is available with different classes of insulation board (EPS 100, EPS 150 and EPS 200) torch-bonded to an APP- or an SBS- polymer modified bituminous waterproofing membrane of choice for type of carrier, thickness or unit weight and surface finish (see technical data overleaf).

Main applications

Thermal insulation and base sheet waterproofing of low pitched roofs for residential and industrial buildings (paved, ballasted, or below roof gardens).

Specification wording

The insulation and the waterproofing base sheet will consist of a layer of Isolparma EPS Tapered Board cut to required roof gradient of….%
EPS board type …. lined with a polymer bitumen membrane (type) …..

Sizes and packaging

Isolparma EPS Tapered Boards are available in a standard width of 100cm and with variable length.
The board thickness is calculated as the mean value between minimum and maximum thickness dimensions (>20mm; <150mm).
Isolparma EPS Tapered Boards have a side selvedge of 5 to 10cm, depending on the membrane lining.
Packaging varies considerably with board sizes .

Main applications


Ballasted or paved flat roofs


Cark park and ramps


Roof gardens


Flat roofs with exposed waterproofing layer


Prefabricated R.C. roof elements

CE marking

Polystyrene Foam Insulation (EPS)

Polymer Bitumen Membrane

Laboratory tests have compared the thermal transmittance values of standard flat boards, of rolls of scored boards and of cut-in boards. When correctly installed, all three types show comparable values except for minor variations.

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EPS TAPERED BOARDS

TECHNICAL DATA SHEET BOARD OF THE EPS BOARD

UNI EN 13163

					EPS Class			
Properties	**Code**	**Norm**	**Description**		**100**	**150**	**200**	**Unit**
Density					19 - 20	25	30 - 32	kg/mc
Declared heat conductivity	λ_D	UNI EN 12667	value measured at a mean temperature of 10 °C		≤ 0,035	≤ 0,034	≤ 0,033	W/mK
Declared heat resistance	R_D	UNI EN 12667	related to thickness $R_D=d/\lambda_D$	mm 30	0,86	0,88	0,91	$(m^2K)/W$
				mm 40	1,14	1,18	1,21	
				mm 50	1,43	1,47	1,52	
				mm 60	1,71	1,76	1,82	
Resistance to compression	CS(10/Y)	UNI EN 826	compression to 10% of thickness		≥ 100 CS(10)100	≥ 150 CS(10)150	≥ 200 CS(10)200	KPa
Resistance to flexibility	BS	UNI EN 12089			≥ 150 BS150	≥ 200 BS 200	≥ 250 BS 250	KPa
Dimensional stability	DS(N)	UNI EN 1603	test conditions (23 °C - 50% U.R.)		± 0,5 DS (N) 5	± 0,5 DS (N) 5	± 0,5 DS (N) 5	%
Fire rating	euroclasse	UNI EN 13501-1			E	E	E	
Specific heat		UNI EN 12524			1450	1450	1450	J/(KgK)
Resistance to water vapour diffusion	MU	UNI EN 12086			30-70	30-70	40-100	μ
Water absorption	WL(T)	UNI EN 12087	total immersion for 28 days		≤ 3 WL(T) 3	≤ 3 WL(T) 3	≤ 3 WL(T) 3	% volume
Thickness tolerance					75	75	75	°C

TECHNICAL DATA SHEET OF THE POLYMER BITUMEN MEMBRANES

UNI EN 13707
UNI EN 13859-1

			TYPES OF MEMBRANE AND CARRIERS										
Properties	**Norm**	**Description**	**APP VV**	**APP VV**	**APP PE**	**APP PE**	**APP PE**	**APP PE**	**APP PE Min**	**APP PE Min**	**APP PE Min**	**SBS PE**	**Unit**
Mass	UNI EN 1849-1		2	3	-	-	3	4	3,5	4	4,5	3	Kg/m^2
Thickness	UNI EN 1849-1		-	-	3	4	-	-	-	-	-	-	mm
Tensile Strength	UNI EN 12311-1	Longitudinal	300	300	400	400	400	400	400	400	400	400	N/5 cm
		Transversal	200	200	300	300	300	300	300	300	300	300	
Elongation at break	UNI EN 12311-1	Longitudinal	2	2	35	35	35	35	35	35	35	35	%
		Transversal	2	2	35	35	35	35	35	35	35	35	
Tear resistance	UNI EN 12310-1	Longitudinal	70	70	130	130	130	130	130	130	130	130	N
		Transversal	70	70	130	130	130	130	130	130	130	130	
Cold flexibility	UNI EN 1109		0	0	-5	-5	-5	-5	-5	-5	-5	-10	°C
Heat resistance	UNI EN 1110		110	110	110	110	110	110	110	110	110	90	°C

APP = Atactic Polypropylene ; SBS = Styrene butadiene styrene; VV = glass fibre reinforcement; PE = polyester reinforcement; MIN = slate finish

Technical Chart issued in November 2007

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