isolparma
RIGID FOAM

Insulating and Waterproofing Roofing Boards

MISTRAL EPS MOULDED

Main applications

Micro-ventilated pitched roofs

CE marking

Polystyrene Foam Insulation (EPS)

MISTRAL EPS MOULDED is a ready-made insulated roofing element designed for ventilated roofs, consisting of a moulded Expanded Polystyrene Board with spacers, bonded to an Oriented Strand Board panel type OSB3 suitable for structural use in damp environments.

Production range

MISTRAL EPS MOULDED is available with a standard 12mm OSB3 board.
On request MISTRAL EPS MOULDED can be supplied with 9mm OSB3 board, with Plyword or other wooden boards of choice.

Main applications

Construction of thermally insulated ventilated pitched roofs. It is recommended that a waterproofing or breathing membrane is installed before tiling.

Specification wording

The external structure of the roof shall consist of ISOLPARMA MISTRAL EPS MOULDED thermally insulated and ventilated panels, with ….mm moulded Expanded Polystyrene class…, bonded to 12mm thick OSB3 board.
Panel size 600 x 1200 with Lap-joint edges at all 4 sides.

Sizes and packaging

MISTRAL EPS MOULDED panels are supplied in a standard format of 600 x 1200 mm. in packages shrink wrapped with foil.
Package and pallet quantities vary with the thickness of the EPS board ordered (see table).

EPS Thickness mm + ventilation chamber	p.cs/package	m^2/package
30 + 30	36	25,92
40 + 40	28	20,16
50 + 40	24	17,28
50 + 50	22	15,84
60 + 40	22	15,84
60 + 50	20	14,40
80 + 40	18	12,96
100 + 40	16	11,52
120 + 40	14	10,08

MISTRAL panels shall sheltered and protected from weathering during storage.

Isolparma Srl - Via Mezzavia 134 - 35020 Due Carrare (PD) - Italy - tel +39 049 9126213 fax +39 049 9129616
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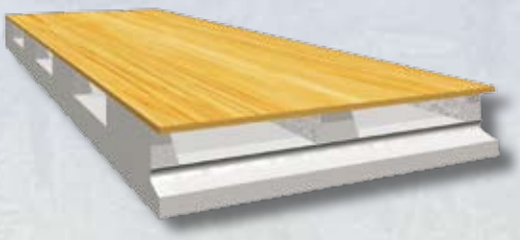

MISTRAL EPS MOULDED

TECHNICAL DATA SHEET BOARD OF THE EPS BOARD

UNI EN 13163

					EPS Class				
Properties	**Code**	**Norm**	**Description**		**100**	**150**	**200**	**250**	**Unit**
Density					19 - 20	25	30 - 32	38	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	≤ 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	0,91	$(m^2K)/W$
				mm 40	1,14	1,18	1,21	1,21	
				mm 50	1,43	1,47	1,52	1,52	
				mm 60	1,71	1,76	1,82	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	≥ 250 CS(10)250	KPa
Resistance to flexibility	BS	UNI EN 12089			≥ 150 BS150	≥ 200 BS 200	≥ 250 BS 250	≥ 350 BS 350	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	± 0,5 DS (N) 5	%
Fire rating	euroclasse	UNI EN 13501-1			E	E	E	E	
Specific heat		UNI EN 12524			1450	1450	1450	1450	J/(KgK)
Resistance to water vapour diffusion	MU	UNI EN 12086			30-70	30-70	40-100	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	≤ 3 WL(T) 3	% volume
Thickness tolerance					75	75	75	75	°C

TECHNICAL DATA SHEET OF THE OSB/3

UNI EN 300

Properties		**Norm**	**Thickness (mm)**		**Unit**
			8 - 10	>10-18	
Mean specific heat		UNI EN 323	670+/-45	670+/-35	kg/m^3
Bending strength	Length	UNI EN 310	22	20	N/mm^2
	Width		11	10	
Modulus of elasticity	Length	UNI EN 310	3500	3500	N/mm^2
	Width		1400	1400	
Swelling in 24 hours		UNI EN 317	<15	<15	%
Thickness tolerance	Smoothed	UNI EN 324-1	+/-0,3	+/-0,3	mm
	Not smoothed		+/-0,8	+/-0,8	
Format tolerance	Length	UNI EN 324-2	+/-3	+/-3	mm
	Width		+/-3	+/-3	
	Squaring		2	2	mm/n
Humidity content		UNI EN 322	873	873	%
Emission of formaldehyde		UNI EN 120	Low formaldehyde E1 Class A<=8mg/100g		
Fire rating class		DIN 4102	B2 – normally inflammable		

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