



## MISTRAL EPS GRANDE

### Main applications



Micro-ventilated pitched roofs

### CE marking



Polystyrene Foam Insulation (EPS)

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

### Production range

MISTRAL EPS GRANDE is available with a standard 12mm OSB3 board.

On request MISTRAL EPS GRANDE can be produced with 9mm OSB3 board, with plywood 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 GRANDE thermally insulated and ventilated panels, with ....mm Expanded Polystyrene Class..., bonded to 12mm thick OSB3 board. Panel size 1220 x 2400 mm with Lap-joint edges at all 4 sides.

### Sizes and packaging

MISTRAL EPS GRANDE panels are supplied in a standard format of 1220 x 2440 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 <sup>2</sup> /package
40 + 40	14	41,68
50 + 40	12	35,72
50 + 50	11	32,74
60 + 40	11	32,74
60 + 50	10	29,77
80 + 40	9	26,79
100 + 40	8	23,81
120 + 40	7	20,84

MISTRAL panels shall sheltered and protected from weathering during storage.


**TECHNICAL DATA SHEET BOARD OF THE EPS BOARD**
**UNI EN 13163**

				EPS Class				
Properties	Code	Norm	Description	150	200	250	Unit	
Density				25	30 - 32	38	kg/mc	
Declared heat conductivity	$\lambda_D$	UNI EN 12667	value measured at a mean temperature of 10 °C	$\leq 0,034$	$\leq 0,033$	$\leq 0,033$	W/mK	
Declared heat resistance	$R_D$	UNI EN 12667	related to thickness $R_D=d/\lambda_D$	mm 30	0,88	0,91	0,91	(m <sup>2</sup> K)/W
				mm 40	1,18	1,21	1,21	
				mm 50	1,47	1,52	1,52	
				mm 60	1,76	1,82	1,82	
Resistance to compression	CS(10/Y)	UNI EN 826	compression to 10% of thickness	$\geq 150$ CS(10)150	$\geq 200$ CS(10)200	$\geq 250$ CS(10)250	KPa	
Resistance to flexibility	BS	UNI EN 12089		$\geq 200$ BS 200	$\geq 250$ BS 250	$\geq 350$ BS 350	KPa	
Dimensional stability	DS(N)	UNI EN 1603	test conditions (23 °C - 50% U.R.)	$\pm 0,5$ DS (N) 5	$\pm 0,5$ DS (N) 5	$\pm 0,5$ 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	40-100	40-100	$\mu$	
Water absorption	WL(T)	UNI EN 12087	total immersion for 28 days	$\leq 3$ WL(T) 3	$\leq 3$ WL(T) 3	$\leq 3$ WL(T) 3	% volume	

**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 <sup>3</sup>
Bending strength	Length	UNI EN 310	22	20	N/mm <sup>2</sup>
	Width		11	10	
Modulus of elasticity	Length	UNI EN 310	3500	3500	N/mm <sup>2</sup>
	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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