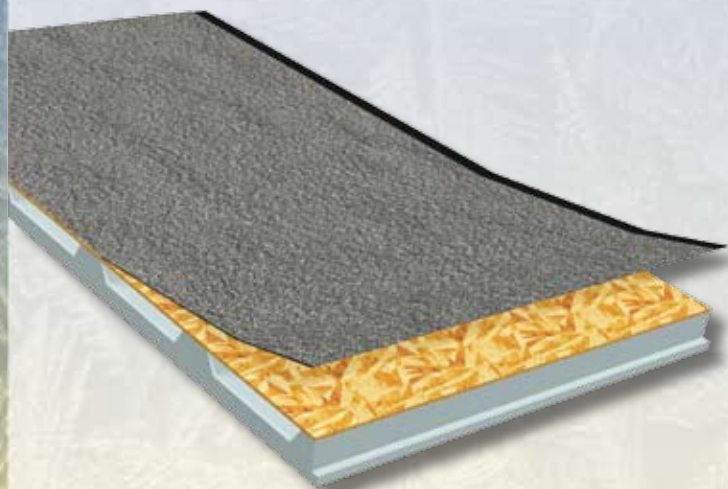


## RIGID FOAM



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

### Production range

MISTRAL EPS GRANDE MEMBRANE is available with a standard 12mm OSB3 board and is lined with a polymer modified membrane of choice (see data sheet overleaf)  
On request can be produced with 9mm OSB3 board or with Plywood or other wooden boards of choice.

### Main applications

Construction of thermally insulated and waterproof ventilated pitched roofs ready for cap sheet waterproofing or tiling.

### Specification wording

The external structure of the roof shall consist of ISOLPARMA MISTRAL EPS GRANDE MEMBRANE thermally insulated and waterproof ventilated panels, with ....mm Expanded Polystyrene Class..., bonded to 12mm thick OSB3 board. Waterproofing membrane type ....

Panel size 1220 x 2400 mm with Lap-joint edges at all 4 sides.

### Sizes and packaging

MISTRAL EPS GRANDE MEMBRANE 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 EPS GRANDE MEMBRANE

### Main applications



Micro-ventilated pitched roofs

### CE marking



Polystyrene Foam Insulation (EPS)

MISTRAL panels shall sheltered and protected from weathering during storage.

**isolparma****RIGID FOAM****Insulating and Waterproofing Roofing Boards****MISTRAL EPS  
GRANDE GUAINA****TECHNICAL DATA SHEET OF THE EPS BOARD**

UNI EN 13163

Properties	Code	Norm	Description	EPS Class				Unit
				100	150	200	250	
Density				19 - 20	25	30 - 32	38	kg/mc
Declared heat conductivity	$\lambda_D$	UNI EN 12667	value measured at a mean temperature of 10 °C	$\leq 0,035$	$\leq 0,034$	$\leq 0,033$	$\leq 0,033$	W/mK
Resistance to compression	CS(10/Y)	UNI EN 826	compression to 10% of thickness	$\geq 100$ CS(10)100	$\geq 150$ CS(10)150	$\geq 200$ CS(10)200	$\geq 250$ CS(10)250	KPa
Resistance to flexibility	BS	UNI EN 12089		$\geq 150$ BS150	$\geq 200$ BS 200	$\geq 250$ BS 250	$\geq 350$ BS 350	KPa
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	$\mu$
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 <sup>3</sup>
Bending strength	UNI EN 310	Length	22	20
		Width	11	10
Modulus of elasticity	UNI EN 310	Length	3500	3500
		Width	1400	1400
Swelling in 24 hours	UNI EN 317	<15	<15	%
Thickness tolerance	UNI EN 324-1	Smoothed	+/-0,3	+/-0,3
		Not smoothed	+/-0,8	+/-0,8
Format tolerance	UNI EN 324-2	Length	+/-3	+/-3
		Width	+/-3	+/-3
		Squaring	2	2
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		

**TECHNICAL DATA SHEET OF THE POLYMER BITUMEN MEMBRANES**UNI EN 13707NI  
EN 13859-1

Properties	Norm	Description	TYPES OF MEMBRANE AND CARRIERS											Unit
			APP VV	APP VV	APP PE	APP PE	APP PE	APP PE	APP PE Min	APP PE Min	APP PE Min	SBS PE		
Mass	UNI EN 1849-1		2	3	-	-	3	4	3,5	4	4,5	3	Kg/m <sup>2</sup>	
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 Data Sheet issued in November 2007