



**ISOROLL EPS is an insulating and waterproofing roofing roll made of a scored Extruded Polystyrene board torch-bonded in a factory controlled environment to a polymer-modified bituminous waterproofing membrane**

#### Production Range

ISOROLL EPS is available with different classes of insulation board (EPS 80, 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 waterproofing of most civil and industrial flat roofs and other constructions.

It can be installed in single or multi-layer constructions for roofs with exposed waterproofing layers, with heavy duty protection, ballasted flat roofs, parking decks as well as roof gardens, pitched roofs, sheds, or prefab r.c. roofing elements.

#### Specification wording

The insulation and the waterproofing will consist of a layer of ISOLPARMA ISOROLL EPS with scored EPS board (type...) ... mm thick, lined with a polymer bitumen membrane (type ) .....

#### Sizes and packaging

ISOROLL EPS is available in rolls 100 cm or 120 cm wide with a side selvedge of 5 to 10 cm.

Rolls are packed in PE bags on pallets (4 rolls/pallet).

Roll length varies with the thickness of the insulating material (see table).

EPS Thickness mm	Roll sizes m
30	7,5 x 1 o 1,2
40	6 x 1 o 1,2
50	5 x 1 o 1,2
60	4 x 1 o 1,2

## ISOROLL EPS

#### Main applications



Pitched roofs  
below tiles  
or slates



Ballasted or paved  
flat roofs



Car parks and  
ramps



Roof gardens



Shed roofs



Prefabricated R.C.  
roofs elements



Vaulted roofs

#### 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.


**TECHNICAL DATA SHEET OF THE EPS BOARD**

UNI EN 13163

				EPS Class					
Properties	Code	Norm	Description	80	100	150	200	Unit	
Density				16 - 18	19 - 20	25	30 - 32	kg/mc	
Declared heat conductivity	$\lambda_D$	UNI EN 12667	value measured at a mean temperature of 10 °C	$\leq 0,037$	$\leq 0,035$	$\leq 0,034$	$\leq 0,033$	W/mK	
Declared heat resistance	$R_D$	UNI EN 12667	related to thickness $R_D = d/\lambda_D$	mm 30	0,81	0,86	0,88	0,91	(m <sup>2</sup> K)/W
				mm 40	1,08	1,14	1,18	1,21	
				mm 50	1,35	1,43	1,47	1,52	
				mm 60	1,62	1,71	1,76	1,82	
Resistance to compression	CS(10/Y)	UNI EN 826	compression to 10% of thickness	$\geq 80$ CS(10)80	$\geq 100$ CS(10)100	$\geq 150$ CS(10)150	$\geq 200$ CS(10)200	KPa	
Resistance to flexibility	BS	UNI EN 12089		$\geq 125$ BS 125	$\geq 150$ BS150	$\geq 200$ BS 200	$\geq 250$ BS 250	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	$\pm 0,5$ DS (N) 5	%	
Fire rating	euroclass	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	30-70	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	$\leq 3$ WL(T) 3	% volume	
Thickness tolerance				75	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 <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

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