



**Isoplan PIR is a pre-assembled roofing element consisting of a flat (or cut-in) rigid thermoset polyisocyanurate board, available with various facing materials (Duotwin®, embossed aluminium, glass) topped by a bituminous underlay membrane of choice.**

#### Product Range

ISOPLAN PIR is available with a Duotwin®, embossed aluminium or glass fibre linings; the bituminous underlay membranes can be aap- or sbs-modified, glass or polyester reinforced.

#### Main applications

Pre-assembled thermal insulation + base sheet waterproofing roofing element, suitable for most civil and industrial flat roofs and other constructions.

It is recommended for multi-layer constructions with/for: exposed roof waterproofing layers, below heavy duty protection, ballasted flat roofs, parking decks, roof gardens, pitched roofs, sheds, or prefab. r.c. roofing elements.

#### Specification wording

The insulation and the waterproofing base sheet will consist of a layer of ISOLPARMA ISOPLAN PIR combining a flat (or cut-in) rigid PIR (Polyiso) foam board (type RF3; RF5 or RF7 ) ... mm thick, and a polymer bitumen membrane (type ) .....

#### Sizes and packaging

Standard:

ISOPLAN PIR RF3 e RF7 1,2 m x 1,2 m,  
ISOPLAN PIR RF5 1,2 m. x 2,5 m.

The boards have a head and side selvedge that may vary from 5 to 10 cm.

On request cut-in boards can be supplied with a width up to 120 cm. and variable length up to 400 cm., with head, tail and one-side selvedge.

ISOPLAN PIR boards are delivered wrapped with PE on pallets.

PIR mm.	Board size m.
30	1,2x1,2
40	1,2x1,2
50	1,2x1,2
60	1,2x1,2
70	1,2x1,2
80	1,2x1,2
90	1,2x1,2
100	1,2x1,2
110	1,2x1,2
120	1,2x1,2

## ISOPLAN PIR

### Main applications



Flat roofs with exposed waterproofing layer



Ballasted or paved flat roofs



Car parks and ramps



Roof gardens



Pitched roofs below tiles or slates



Shed roofs



Prefabricated R.C. roof elements

### CE marking



Polyisocyanurate Foam Insulation (PIR)



Polymer Bitumen Membrane


**ISOPLAN PIR**

TECHNICAL DATA OF THE PIR BOARD							EN 13165			
Properties	Code	Norm	Description	RF3	RF5	RF7	Unit			
Board Density			Average value with facing characteristics	36	40	35	kg <sup>3</sup>			
Declared Thermal Conductivity	$\lambda_D$	EN 12667	Value at 10 °C	mm 30 to 70	0,023	0,023	0,028	W/mK		
				mm 80 to 120			0,026			
Declared Thermal Resistance	$R_D$	EN 12667	$R_D=d/\lambda_D$	mm 30	1,30	1,30	1,07	(m <sup>2</sup> K)/W		
				mm 40	1,74	1,74	1,43			
				mm 50	2,17	2,17	1,79			
				mm 60	2,61	2,61	2,14			
				mm 70	3,04	3,04	2,50			
				mm 80	3,48	3,48	3,08			
				mm 90	3,91	3,91	3,46			
				mm 100	4,35	4,35	3,85			
				mm 110	4,78		4,23			
Compressive Strength	CS (10/Y)	EN 826	at 10% deformation	mm 30	150	150	150	KPa		
				mm 40	140	150	150			
				mm 50	150	150	160			
				mm 60	150	150	160			
				mm 70	150	150	160			
				mm 80 to 120	130	150	150			
Dimensional Stability	DS(TH)	EN 1604	test conditions: 48h, 70 °C, 90% RH					%		
			variation on dimensions			1			1	1
			Variation on thickness	mm 30 to 120	1	1			1	
				mm 30	5	4			6	
				mm 40	4	4			5	
				mm 50	4	4			4	
				mm 60	4	4			3	
				mm 70	4	4			3	
			mm 80 to 120	4	4	4				
test conditions: 48h, 20 °C										
variation on dimensions			0,5	0,5	0,5					
Variation on thickness			1	1	1					
Reaction To Fire	Euroclass	EN 13501-1		F	D	E				
Specific Heat Capacity				1453	1370	1464	kcal/kg°C			
Water Absorption	WL(T)	EN 12087	Total immersion for 28 days	< 1	< 1	< 2	%			
Water Vapour Diffusion Resistance				21 ± 3	-	8.0 ± 0,3				
Water Vapour Diffusion Resistance Factor	MU	EN 12086		148 ± 24	∞	56 ± 2	μ			
<b>NOTES:</b> Temperature Stability: Isolparma RF Rigid Foam Boards can be used in a range of temperatures between -40 °C and + 110 °C. They will resist to limited exposure to peaks of up to 200 °C and withstand with no problems the temperatures of molten bitumen. Prolonged exposure to high temperatures may cause deformations to the foam or to the facing material, but will not cause sublimation or melting of the foam.										