



ISOROLL PIR is an insulating and waterproofing roofing roll that combines a scored insulation board of Polyisocyanurate (Polyiso) foam with either glass fibre or bituminous paper felt linings, torch-bonded in a factory controlled environment with to a polymer-modified bituminous waterproofing membrane

Production Range

ISOROLL PIR is available with a glass fibre lining (RF7 Boards) or a bituminous paper felt lining (RF2 Boards) 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 base sheet of most civil and industrial flat roofs and other constructions.

It can be installed in 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 base sheet will consist of a layer of ISOLPARMA ISOROLL PIR with a scored PIR (Polyiso) foam board (type RF2 or RF6) ... mm thick, and a polymer bitumen membrane (type)

Sizes and packaging

ISOROLL PIR 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).

| PIR Thickness mm | Roll sizes m |
|------------------|---------------|
| 20 | 8 x 1 o 1,2 |
| 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 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



Vaulted roofs



Tanks

CE marking



Polyisocyanurate Foam Insulation (PIR)



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.


ISOROLL PIR
TECHNICAL DATA SHEET OF THE PIR BOARD

CE UNI EN 13165

| Properties | Code | Norm | Description | PIR | | Unit | |
|---------------------------------------------|-------------|----------------|-----------------------------------------------|--------------|--------------|-----------|----------------------|
| | | | | RF7 | RF2 | | |
| Density | | | | 30 - 35 | 30 - 35 | kg/mc | |
| Declared heat conductivity | λ_D | UNI EN 12667 | value measured at a mean temperature of 10 °C | $\leq 0,028$ | $\leq 0,028$ | W/mK | |
| Declared heat resistance | R_D | UNI EN 12667 | related to thickness $R_D=d/\lambda_D$ | mm 20 | 0,71 | 0,71 | (m ² K)/W |
| | | | | mm 30 | 1,07 | 1,07 | |
| | | | | mm 40 | 1,43 | 1,43 | |
| | | | | mm 50 | 1,79 | 1,79 | |
| | | | | mm 60 | 2,14 | 2,14 | |
| Resistance to compression | CS (10/Y) | UNI EN 826 | compression to 10% of thickness | mm 20 | 160 | 150 | KPa |
| | | | | mm 30 | 150 | 150 | |
| | | | | mm 40 | 150 | 160 | |
| | | | | mm 50 | 160 | 165 | |
| | | | | mm 60 | 160 | 165 | |
| Dimensional Stability | DS(TH) | UNI EN 1604 | 48 h a 70 °C e 90 % RH | | | | % |
| | | | Linear variation | | 1 | 1 | |
| | | | Variation in thickness | mm 20, 30 | 6 | 7 | |
| | | | | mm 40 | 5 | 6 | |
| | | | | mm 50 | 4 | 4 | |
| | | | | mm 60 | 3 | 4 | |
| | | | 48 h a -20°C | | | | |
| Linear variation | | 0,5 | 0,5 | | | | |
| Variation in thickness | | 1 | 1 | | | | |
| Fire Rating | euroclass | UNI EN 13501-1 | | E | F | | |
| Specific heat | | | | 0,400 | 0,400 | kcal/kg°C | |
| Water absorption | WL(T) | UNI EN 12087 | Total immersion for 28 days | ≤ 2 | ≤ 2 | % | |
| Resistance to the diffusion of water vapour | MU | UNI EN 12086 | | 350 | 350 | μ | |

NOTES:

Temperature Stability: Isolparma Rigid Foam Boards are suitable for use within a range of continuous temperatures between -40 °C and + 110 °C. For very short periods of time they can also withstand without any problems temperatures up to + 200 °C, or the temperatures of molten bitumen. Long exposure to high temperatures may cause deformations of the foam or of the facing materials, but will not cause sublimation or melting

TECHNICAL DATA SHEET OF THE POLYMER BITUMEN MEMBRANES

 UNI EN 13707
 UNI 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 ² |
| 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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