

INSUPOLY (PES/R)

INSUPOLY (PES/R) is an elastomeric Modified Bitumen Membrane used for various waterproofing applications. It is manufactured in a high-tech calendaring process, which involves the saturation and coating of a reinforced polyester carrier with a SBS elastomer-modified bitumen compound. The SBS modifiers are used to improve the thermal, chemical and ageing properties of the bitumen compound. Meanwhile, the mechanical characteristics such as tensile strength, elongation and tear resistance are boosted by the non-woven reinforced polyester carrier, which acts as reinforcement to the product.

SURFACE FINISH

The lower surface of the membrane is laminated with a thin thermo-fusible polyethylene 'burn-off' film. The membrane is available with a wide range of upper surface finish options including different colored slates, aluminum foil, sand and polyethylene film.

KEY FEATURES

- Absolute impermeability to water
- High chemical resistance to alkaline solutions, light acidic solutions and bacteria
- Thermal resistance under a wide range of temperature fluctuation
- Excellent U.V. resistance when surface finished with slates
- Ease of adhesion to a wide variety of surfaces
- Applicable for above and below grade usages.

APPLICATION

INSUPOLY (PES/R) membranes are used for a wide variety of waterproofing requirements and in applications where the membrane is subject to constant movement and high stresses, such as:

- roofing or re-roofing for single or multi-layer systems
- sloped and flat roofs
- metal decks subject to significant movements
- tunnels, wet areas, swimming pools and toilets
- foundations and underground structures.

STORAGE

All Modified Bitumen Membranes should be stored in an upright position in a dry, flat and ventilated storage area away from direct sunlight.

INSTALLATION

Please refer to the Insutech Applicator Guide for complete instructions on the application of the product.

TEST	UNIT	TOLERANCE	TEST METHOD	RESULTS
Cold Temperature Flexibility	°C	-	ASTM D-5147, EN - 1109	-15 -18
Thickness	mm	± 5%	EN 1849-1	4
Roll Width	m	± 1%	EN 1848-1	1
Roll Length	m	± 1%	EN 1848-1	10
Straightness	mm	-	EN 1848-1	± 5
Softening point (R&B)	°C	≥	ASTM D- 36	110
Penetration @ 25 °C	dmm	± 5	ASTM D- 5	35
Penetration @ 60 °C	dmm	± 20	ASTM D- 5	140
TENSILE STRENGTH (MAX)				
Longitudinal	N/5cm	± 20%	EN 12311-1	750
Transverse	N/5cm	± 20%	EN 12311-1	500
ELONGATION @ BREAK				
Longitudinal	%	± 15	EN 12311-1	45
Transverse	%	± 15	EN 12311-1	50
TEARING STRENGTH (NAIL-SHANK)				
Longitudinal	N	≥	EN 12310-1	160
Transverse	N	≥	EN 12310-1	180
Resistance To Static Loading	kg	≥	EN 12730	15
Resistance To Impact	mm	≤	EN 12691	1000
Heat Flow	°C	-10	ASTM D-5147, EN - 1110	110
DIMENSIONAL STABILITY				
Longitudinal	%	-	EN 1107-1	-0.2
Transverse	%	-	EN 1107-1	0.2
Water Tightness	60 Kpa	-	EN 1928:2000	pass
Water Absorption	%	≤	ASTM D-5147, UNI - 8202/22	0.15
Joints Tensile Strength Shear L/T	N/5cm	± 20%	EN 12317	600 / 400
Thermal Ageing in air (in oven at 70 ± 2°C) for 4 weeks	-	-	EN 1296	4 weeks passed
Average Loss of Slates	%	≤	EN 12039	30%

* PES/ R : Non-Woven Polyester Reinforcement, Reinforced with Fiber Glass Filaments Composite

- Given test results are based on 4mm thick specimens
- Tolerances for all the above values are according to relevant UEAtc Guidelines
- Insutech reserves the right to modify product specifications due to customer request and/or continuous product development without any prior notice
- This publication revokes any previous one. Issue. 3/ © 2016