

## INSUPOLY(PES)

INSUPOLY(PES) 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 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 polyester carrier, which acts as a 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

- Excellent U.V. resistance if finished with slated.
- Superior chemical resistance to alkaline solutions, light acidic solutions and bacteria
- Superior thermal resistance under a wide range of temperature fluctuation
- Absolute impermeability to water
- Outstanding performance at high temperature and good at low temperature
- Excellent adhesion to any surface
- Applicable for above and below grades usages.

## APPLICATIONS

INSUPOLY(PES) membranes are used for a wide variety of waterproofing requirements and in applications subject to high mechanical stresses, such as:

- roofing or re-roofing for single or multi-layer systems
- sloped and flat roofs
- tunnels, wet areas, swimming pools and toilets
- foundations and underground structures
- lab on grade

## STORAGE

INSUPOLY(PES) 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           |
|--|-------------------|-----------|--------------|-------------------|
| Reinforcement Type.                            | gm/m <sup>2</sup> | -         | -            | 200               |
| Cold Temperature Flexibility                   | ° C               | MLV ≤     | EN 1109      | -15 to -18        |
| Thickness                                      | mm                | MDV ± 5%  | EN 1849-1    | 3 & 4             |
| Roll Width                                     | m                 | MDV ± 1%  | EN 1848-1    | 1                 |
| Roll Length                                    | m                 | MDV ± 1%  | EN 1848-1    | 10                |
| <b>TENSILE STRENGTH (MAX)</b>                  |                   |           |              |                   |
| Longitudinal                                   | N/5cm             | MDV ± 10% | EN 12311-1   | 900               |
| Transverse                                     | N/5cm             | MDV ± 10% | EN 12311-1   | 650               |
| <b>ELONGATION @ BREAK</b>                      |                   |           |              |                   |
| Longitudinal                                   | %                 | MDV ± 15  | EN 12311-1   | 40                |
| Transverse                                     | %                 | MDV ± 15  | EN 12311-1   | 45                |
| <b>RESISTANCE TO STATIC AND IMPACT LOADING</b> |                   |           |              |                   |
| Resistance to Static Loading                   | Kg                | MLV ≥     | EN 12730     | 15                |
| Resistance to Impact Loading                   | mm                | MLV ≤     | EN 12691     | 1000              |
| <b>OTHER TESTS</b>                             |                   |           |              |                   |
| Flow Resistance at Elevated Temperature        | ° C               | MDV - 10  | EN 1110      | 110               |
| Dimension Stability                            | %                 | -         | EN 1107-1    | ± 1               |
| External Fire Performance                      | -                 | -         | EN 13501-5   | F <sub>Roof</sub> |
| Reaction To Fire                               | -                 | -         | EN 13501-1   | F                 |
| Water Tightness Method A                       | 60 Kpa            | -         | EN 1928:2000 | PASS              |
| Average Loss Of Slates                         | -                 | EN 12039  | MDV ≤        | 30%               |

- Due to continuous product development, INSUTECH reserves the right to modify technical specifications without prior notice.
- This publication revokes any previous one. Issue. 1 / © 2017
- Membranes with a color slated surface finish may notice a change of color variations in form of oily marks, caused by migration of natural bitumen oils and exposure to atmospheric agents. This occurrence has no effect on the product's performance what so ever and becomes uniform gradually by time.
- PES: Non-Woven Polyester Reinforcement.