INSUSOL (FG)



DESCRIPTION



INSUSOL (FG) is a Plastomeric Modified Bitumen Waterproofing Membrane manufactured in a INSUSUL (FG) is a Plastomeric Modified Bitumen Waterproofing Membrane manufactured in a superior calendaring process by saturating and coating a fiberglass fleece carrier with a waterproofing compound made of a special grade of modified bitumen with APP Polymers. Whereas the modifiers boost the thermal, mechanical and aging characteristics of the membrane compound; the Fiberglass fleece carrier establishes the mechanical characteristics as it performs as the reinforcement element that provides the membrane with its significant dimensional stability and moderate mechanical properties.

INSUSOL (FG) upper and lower faces are laminated with Thermo - Fusible Polyethylene film.



KEY FEATURES

- Outstanding performance with high temperature and good at low temperature.
- High dimensional stability due to Fiberglass characteristics. Absolute impermeability to water.
- Excellent adhesion to any surface.

 Excellent compatibility with modified and oxidized bitumen waterproofing systems.

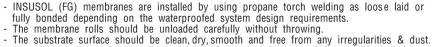
APPLICATIONS



INSUSOL (FG) membranes are used for general waterproofing purposes in applications subject to limited mechanical stresses and as a base layer for a multi-layer waterproofing systems, and first layer in re-roofing works on substrates with modified membranes, and recommended for the subsequent applications:

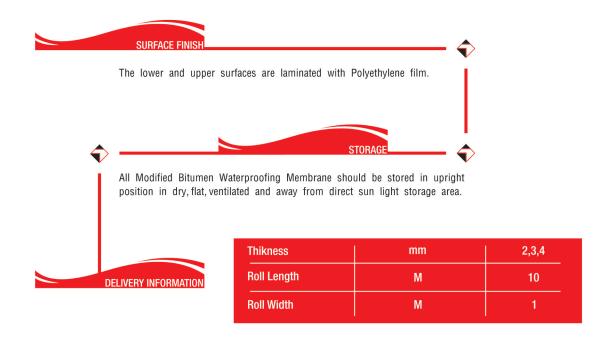
- Base layer in multi-layer APP waterproofing systems.
- Damp-Proofing and wet areas.
 Inclined protected small roofs with limited reach.
- Re-roofing works on existing bitumen based waterproofing systems.

INSTALLATION



- According to the surface conditions; the surface might be in need for a cold applied bituminous primer layer before the membrane installation.
- The Modified Bitumen Waterproofing Membranes should be unrolled and placed in aligned
- Side overlap should be from 7 10 cm, while end overlap should be from 10 15 cm.

 For fully bonded systems, the membranes should be re-rolled without compromising its orientation while installation with propane torch and exposing the lower surface to the flame till the polyethylene film burns and the bituminous mass start melting, consequently creating a heat weld between the membrane and the substrate.
- For seams welding, torching takes place from above by heating the contact line at side & end overlaps then using a trowel to create pressure at the upper membrane to the lower one while avoiding long time flame exposure on the same point.
- For sloping roofs, the membrane should be laid from the lower edge with longitudinal direction of rolls perpendicular to slop direction, as the side lap of the consecutive roll should be placed above the prior one.



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APP Modified Bitumen Membrane With Glassfiber Reinforcement

| TEST | MEASURING UNIT | TEST METHOD | INSUSOL إنسوسسول | الإختيار |
|---|----------------|--------------------------|---------------------|------------------------------------|
| Thickness | mm | EN 1849-1 | 2, 3,4 | السمك |
| Width | m | EN 1849-1 | 1 | العرض |
| Length | m | EN 1849-1 | 10 | الطول |
| Ortometry (5m Length Specimen) | mm | EN 1849-1 | ± 5 | درجة إستواء السطح |
| Softening point (R&B) | °C | ASTM D- 36 | 150 | درجة الليونة |
| Penetration @ 25 °C | dmm | ASTM D- 5 | 15 | در جة الإختراق عند ٢٥°منوية |
| Penetration @ 60 °C | dmm | ASTM D- 5 | 70 | درجة الإختراق عند ٦٠ °منوية |
| Tensile Strength (max) | | | | |
| Longitudinal | N/5cm | ASTM D- 5147 | 400 | طولياً |
| Transvers e | N/5cm | ASTM D- 5147 | 250 | عرضيا |
| أقصى معدل للإستطالة Elongation @ Break | | | | |
| Longitudinal | % | ASTM D- 5147 | ≥2.5 | طولياً |
| Transverse | % | ASTM D- 5147 | ≥2.5 | عرضيا |
| Tearing Strength (Nail-Shank) | | | | |
| Longitudinal | N | EN 12310-1 | 70 | طولياً |
| Transverse | N | EN 12310-1 | 80 | عرضيأ |
| Static Puncturing | - | UNI 8202/11 | PS-2 | مقاومة الإختراق الإستاتيكي |
| Dynamic Puncturing | - | UNI 8202/12 | - | مقاومة الإختراق الدينامكي |
| Heat Flow | °C | ASTM D-5147, EN 1110 | 110 | الثبات عند درجات الحرارة العالية |
| Cold Temperature Flexibility | °C | ASTM D-5147, EN 1109 | 0 to +3 | المرونة عند درجات الحرارة المنخفضة |
| Dimensional Stability ثبت الأبعاد | | | | |
| Longitudinal | % | EN 1107-1 | Stable | طولياً |
| Transvers e | % | EN 1107-1 | Stable | عرضيا |
| Impermeability To Water | 100 Kpa | EN 1928:2000 | Absolute | مقاومة نفاذية المياه |
| Water Absorption | % | ASTM D-5147, UNI 8202/22 | Less than 0.15 | درجة إمتصاص الماء |
| Vapour Permeability | u | EN 1931 | 50,000 | درجة نفاذية بخار الماء |
| Joints Tensile Strength | N/5cm | EN-12317, UNI 8202/30 | Equal to membrane | مقاومة الشد عند مناطق التوصيل |
| Thermal Ageing in air (in oven at 70± 2°C) | - | EN 1296 | 4 weeks passed | الإهتراء نتيجة التسخين |
| Adhesion To Concrete (Torch Applied) | N/cm | EN 12316 | 20 | قوة الإلتصاق بالأسطح الخرسانية |

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