



VARZIRAN CO. (P.J.S.)

Product Data Sheet

Product Name: Bituseal® Membrane

Standard: IGS-M-TP-014-8(1): 2015

Product Description

The Bituseal® Membrane comprises a woven glass fiber carrier incorporating tough and flexible polymer modified bitumen. The outer surface of the membrane is applied with a thin polyolefin film on the back side and thin layer of sand on the front side which provides both mechanical and solar protection. The Bituseal® Membrane has excellent mechanical and elastic properties. These are also maintained at low temperatures, thus ensuring that the product is resistant to mechanical damage and has a wide service temperature range. Bituseal® Membranes are used as the field joint corrosion protection on oil, gas and water pipelines where field joints of good mechanical properties and long service life are the principal requirements.

Bituseal® Membranes were originally developed to be applied on Bituseal® coated pipes, but has also successfully been used for polyethylene and polypropylene coated pipes. Furthermore the membrane can be used as corrosion protection of pipe work, tanks and other installations. The Bituseal® Membrane system also includes a fast drying polymer compatible primer: Bituseal® Primer.

Application

Before applying the Bituseal® Membrane it is important that the steel surface is oil and grease free. The steel should be cleaned to the minimum of Sa 2 using a wire brush or by blast cleaning. The surface roughness should be minimum 50µm. The cleaned area must be primed using either the Bituseal® Primer, which has to be spray or brush applied.

Application of the Bituseal® Membrane is performed manually. The technique require that the adhesive backing of the Bituseal® Membrane is pressed firmly against the pipeline steel whilst being heated by torch. The membrane is progressively unrolled around the pipeline circumference, keeping a thin bead of molten adhesive between the steel and the membrane, until it encircles the joint completely. This technique ensures that all air is excluded from under the membrane. When applying the Bituseal® Membrane to bends and specials, a hand application technique is used, and the membrane may be readily tailored to suit surface contours.

Storage

The product should be stored upright on a dry surface. It should be protected against the ingress of moisture and direct solar heating. The Bituseal® Membrane may be stored at a maximum of two layers.

Product Dimension

Head Office:
No. 4, Amdi St., Africa Ave.
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Tel.: (+98 21) 88 77 31 24
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Factory:
Najafabad road ,
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Tel.: (+98 28) 333 43 888
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Different sizes of Bituseal® Membrane could be produced in accordance with customer order. Membranes with length more than 1.4 m are rolled around a core and wrapped using anti UV heat shrinkable film. Membranes with length less than 1.4 m are produced in the form of sheet and wrapped in anti UV heat shrinkable film.

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Technical Data			
Properties	Unit	Requirement	Method of test
Mass per unit area	gr/m²	Min 5000	EN ISO 2808
Thickness	mm	Min 4.0	ISO 3801
Holiday detection (5 kV per mm of coating thickness)	kV	Max 20	EN 10300 Annex R
Tensile Strength - Longitudinal - Transverse	N/mm	Min 15 Min 20	EN 12068 Annex A
Peel strength at 23±2°C	N/cm	Min 70	EN 10300 Annex S
Peel strength at 60±3°C	N/cm	Min 20	EN 10300 Annex S
Lap shear strength at 60±3°C	N/mm²	Min 0.05	EN 12068 Annex D
Impact resistance 23±2°C	J	Min 15	EN 12068 Annex H
Specific electrical insulation resistance, - RS100 - RS100 / RS70	Ω.m²	Min 10⁸ Min 0.8	EN 12068 Annex J
Cathodic disbondment resistance - at 23±2 °C - at 60±3 °C	mm mm	Max 5 Max 12	EN 12068 Annex K
Dielectric strength	kV	Min 25	ASTM D 149
Water absorption	gr/m²	Min 0.7	ISO 5256

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