

POLYGLAS

APP Modified Membrane With Double Re-inforcement

DESCRIPTION

BITUMAT POLYGLAS is an exceptionally high performance, prefabricated, modified bitumen membrane consisting of proprietary waterproofing compound, re-inforced with double re-inforcement of spunbonded non-woven polyester mat and fiberglass mat.

The BITUMAT POLYGLAS proprietary waterproofing compound is formulated with select bitumen, modified with Atactic Polypropylene (APP) for greater elasticity, flexibility, and further enhanced with a blend of Thermoplastic Polymer (TP) and Elastoplastic Co-polymer (EPC) for high heat resistance, greater elongation and low temperature flexibility. The compound is then stabilized with opaque Mineral Stabilizers (MS) for impact resistance, UV resistance and durability.

The superior waterproofing compound is re-inforced with a robust, isotropic, spunbonded, non-woven polyester mat to increase toughness and strength. A second layer of fiberglass re-inforcement is incorporated on the top of the membrane for increased dimensional stability. Combined, they create an exceptionally dimensionally stable, puncture and crack resistant membrane.

The proprietary compound, the unique double re-inforcement, combined with the famous BITUMAT process technology and rigid quality assurance program, yields a very reliable and dependable waterproofing membrane available.

USES

BITUMAT POLYGLAS is the ideal waterproofing membrane for heavy duty requirements such as, large span equipment or traffic bearing roofs, bridges, tunnels, underground tanking, below grade waterproofing or wherever toughness, impact resistance and/or dimensional stability is required.

GENERAL DATA

Nominal Roll Length : 10 M
Nominal Roll Width : 1 M
Nominal Thickness : 3,4,5 MM

RE-INFORCEMENT

180 gsm non-woven polyester fabric & 60 gsm of glasfiber mat. Other weights available upon request.

PACKAGING

- 3mm - 28 rolls / pallet
- 4mm - 23 rolls / pallet
- 5mm - 16 rolls / pallet

OUTSTANDING FEATURES

- Total impermeability for total waterproofing
- Excellent resistance to aging and weathering
- Outstanding bondability and seam integrity
- Flexibility at low temperature
- Stability at high temperature
- Very high resistance to impact & puncture.
- Variety of finishes for exposed and covered applications
- High tensile strength and tear resistance
- Isotropic properties
- Increased resistance to hydraulic pressure

FINISHES

BITUMAT POLYGLAS is available in two basic finishes:

- Black smooth finish with polyethylene surfaces for covered applications.
- Coloured granule surfacing for exposed applications.

QUALITY CONTROL

In addition to stringent regular tests by BITUMAT laboratory, our products are tested periodically by Independent Laboratories.

STANDARDS

BITUMAT POLYGLAS complies with the requirements and tolerance levels of:

- 1.) The American Society for Testing & Materials, ASTM D 6223, Type I
- 2.) UEAtc (European Union of Technical Agreement)

APPLICATION

BITUMAT POLYGLAS is installed by torch welding method, loose-laid or fully bonded to substrate. When loose-laid, only overlaps are bonded together. Peripheries and protrusions are sealed according to specifications.

COVERAGE RATE (Approx.)

(Rate may vary as per site requirement)
Flat areas : 1.15 M²/M² per layer with 10 cms. side laps and 15 cms. end laps.

Base flashing : 100x35 cms. with 15 cm. end laps, 0.40 M²/ Linear Mtr.

Average wastage : 3 - 5 %

TORCHING GUIDELINES

The underside of the membrane should be torched just enough to superficially melt the bitumen. Excessive heating may damage the reinforcement. Overlaps should be re-heated from the top and resealed with a trowel to ensure seam integrity. For details of installation methods and flashing requirements, consult the relevant *BITUMAT Systems Design and Installation Manual*.

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TECHNICAL DATA

MBM03	MAY04	R-00	00
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	Property	Typical Result	Test Method
1.	Softening point °C	155	ASTM D 36
2.	Penetration, @ 25 °C, dmm	20	ASTM D 5
3.	Low temperature flexibility, °C	-6 to -10	ASTM D 5147
4.	Heat resistance, compound stability @ 120°C for 2 hours & 15 minutes	No flow - Pass	ASTM D 5147
5.	Tensile strength, N/5 cm @ 23+ 2°C Longitudinal Transverse	900 (18 KN/m) 600 (12 KN/m)	ASTM D 5147
6.	Tensile strength, N/5 cm @ -18+ 2°C Longitudinal Transverse	1150 (23 KN/m) 750 (15 KN/m)	ASTM D 5147
7.	Elongation, % @ 23+ 2°C Longitudinal Transverse	45 50	ASTM D 5147
8.	Elongation, % @ -18+ 2°C Longitudinal Transverse	26 29	ASTM D 5147
9.	Load strain product, @ 23+ 2°C Longitudinal Transverse	40,500 30,000	CGSB-37-GP-56M
10.	Load strain product, @ -18+ 2°C Longitudinal Transverse	29,900 21,750	CGSB-37-GP-56M
11.	Lap joint strength, N/5 cm Longitudinal Transverse	Same as membrane	CGSB-37-GP-56M UEAtc
12.	Tear resistance, N Longitudinal Transverse	700 540	ASTM D 5147
13.	Tear strength, N Longitudinal Transverse	220 240	UEAtc
14.	Puncture resistance, N Static indentation Dynamic indentation	1800 L4 I4	ASTM E 154 UEAtc 5.1.9. UEAtc 5.1.10
15.	Water absorption, %Wt @ 23 °C / 24 hrs.	<1.0	ASTM D 5147
16.	Water vapour transmission, g/m ² /24 hrs.	<0.28	ASTM E 96 Procedure E 37.8 °C at 90% RH
17.	Dimensional stability, % Longitudinal Transverse	+ 0.1 + 0.1	ASTM D 5147
18.	Resistance to leakage at joints	Pass	UEAtc
19.	Resistance to aging & U.V. (Weather-O-meter, 2000 hrs.)	No change greater than 20% of the original values	ASTM G53 UNI 8202

The information given in this Technical Data Sheet reflects typical median properties based on laboratory test, and practical experience; subject to the tolerance levels of UEAtc directives. However, as the product is often used under conditions beyond our control, we can't warrant but the product itself.

THIS PUBLICATION AUTOMATICALLY SUPERSEDES ALL PREVIOUS PUBLICATIONS RELATING TO THIS PRODUCT.