AWAZEL

Technical Data Sheet

DIEN MEMBRANES

DIEN30, DIEN30M, DIEN40, DIEN40M, DIEN40200, DIEN40200M DIEN40250, DIEN40250M, DIEN50, DIEN50M, DIEN60, DIEN60M

SBS modified bituminous membrane, reinforced with Polyester; complies with ASTM D 6164, Type I & II, Grade S and G and SASO 2649

DESCRIPTION

Elastomeric (SBS) Modified Bituminous Membranes, reinforced with non woven polyester mat The polyester combines high tensile strength and elongation.

FEATURES

- Superior Flexibility at low temperature
- Durable and easy to apply.
- Remarkable resistance to aggressive attack of salts and chemicals.
- High tensile strength & elongation.
- Excellent tear and puncture resistance.
- Ideal for low temperature climate.

FUNCTIONS

Used as single and/or double layers for inverted roofs and also general waterproofing applications. Recommended to use for areas with cold and moderate climate. A plain layer followed by a layer of mineral surfaced DIEN should be used as exposed layer.

INSTRUCTIONS FOR APPLICATION

The membranes can be installed fully bonded or loose-laid by torch welding. The substrate should be cleaned and primed with AWAZEL PRIMER D 41and allowed to dry. Torching should be done by skilled labor and should be controlled so that only the PE film is melted and the asphalt coating is softened sufficient to bond the membrane. All lap joints should be smoothed and sealed using a heated round-nosed trowel. The heat of the gas flame should be applied to the trowel. In loose-laid applications, only the lap joints, areas around penetrations (pipes etc.) upstands and a 30 cm wide strip around the perimeter of the work should be fully bonded. Upstands and flashing should be installed using 1 M wide pieces cut from the length of the roll.(The overlap joints should be 5 to 10 cm at the sides and 15 cm at the end)

COVERAGE

1.12 meter per layer : for flat surfaces

HEALTH & SAFETY

All safety measures should be taken during application. Fire extinguishers should be available in the site. Labor should wear personnel protective tools such as gloves and goggles during application.

PACKING

It is produced in rolls of 1 x 10 and 1 x 8 meters; special lengths are available upon request. The rolls are palletized and shrink-wrapped.

SURFACING

Surfaced with P.E. Film on both sides. Mineral surfaced membrane is surfaced with mineral granules (slate) on top and PE Film at bottom side and at overlap side to facilitate torching.

STORAGE & MATERIAL HANDLING

The rolls should always be stored vertically in a shaded area. Normally the pallets should not be stacked one over the other. However, if a wooden board is used in between, two pallets may be stacked one over the other.

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TECHNICAL DATA

Properties	Typical Results						Test Method
	DIEN30 DIEN30M	DIEN40 DIEN40M	DIEN40200 DIEN40200M	DIEN40250 DIEN40250M	DIEN50 DIEN50M	DIEN60 DIEN60M	
Roll Size, m	10 x 1	10 x 1	10 x 1	10 x 1	8 x 1	8 x 1	ASTM D 5147
Thickness, mm	3.0	4.0	4.0	4.0	5.0	6.0	ASTM D 5147
Unit Weight (Plain), kg/m^2	3.0	4.0	4.0	4.0	5.0	6.0	ASTM D 5147
Unit Weight (Mineral), kg/m^2	3.5	4.5	4.5	4.5	5.5	6.5	ASTM D 5147
Carrier (Polyester), g/m^2	160	180	200	250	250	250	UEAtc MOAT 30
Coating Asphalt Type	SBS Modified Asphalt						
Softening Point, °C	>115						ASTM D 36
Penetration at 25°C, 0.1 mm	25 - 40						ASTM D 5
Tensile Strength, N/5cm Longitudinal Transverse	* 750 550	* 950 800	* 1000 800	* 1,100 850	* 1,100 900	* 1,100 1,000	ASTM D 5147 ASTM D 146
Tensile Strength, ASTM D 6164, Requirements, kN/m Longitudinal & Transverse	Type I ≥ 12.3			Type II ≥ 17.5			ASTM D 5147 ASTM D 146
Tensile Strength at - 18 °C, kN/m Longitudinal Transverse	* 22 20			* 24 22			ASTM D 5147 ASTM D 146
Elongation at, %: Longitudinal & Transverse	45 50					**	ASTM D 5147 ASTM D 146
Elongation at - 18 °C, %: Longitudinal & Transverse	24 26					**	ASTM D 5147 ASTM D 146
Tear Resistance, N: Longitudinal Transverse	400 300	450 350	500 400	500 400	500 450	550 450	ASTM D 4073
Tear Resistance, ASTM D 6164,N Longitudinal & Transverse	Type I ≥ 246			Type II ≥ 311			ASTM D 4073
Lap Joint Strength, N/5cm Longitudinal & Transverse	Same as Membrane						UEAtc M.O.A.T. 30 & 27
Load Strain Product: Longitudinal Transverse	33,750 27,500	42,750 40,000	45,000 40,000	49,500 42,500	49,500 45,000	49,500 50,000	CGSB 37-GP 56 M
Cold Flexibility at -15 to -20 °C	No Cracking						UEAtc M.O.A.T. 30
Heat Resistance at 100 °C	No Flowing						UEAtc M.O.A.T. 30
Resistance to Water Pressure	No Leakage						DIN 52123
Water Absorption (Grade S), %	≤ 3.2						ASTM D 5147
Static Puncture Resistance	L3 (15 kg)			L4 (25 kg)			UEAtc M.O.A.T. 27
Dynamic Puncture Resistance	13 (8-12mm indenter)			14 (4-6 mm indenter)			UEAtc M.O.A.T. 27
Dimensional Stability, %	≤ 1.0						ASTM D 5147
Moisture Content (W.V.T.), %	≤ 1.0						ASTM E 96
Resistance to Aging after 2000 hrs	No Deteriorations						ASTM D 4799

Note: The above shown technical data are typical results obtained, to the best of our knowledge. From our quality control records extra details can be provided upon request.

* In accordance to the standard, a variation of 20% is expected.

** In accordance to the standard, a variation of 15% is expected.

Refer TDS Control Nos. SA011604, SA021604 & SA031604 for Supporting Accessories

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