SPY

SBS Modified Bitumen Membrane

Description:

SPY is a bitumen-based torch-applied waterproofing membrane with excellent performance, and modified with Styrene Butadiene Styrene (SBS), to provide an extreme cold flexibility under severe cold weather.

SPY's reinforcement, 200g/m^2 non-woven polyester fabric, offers exceptional strength for the membrane, and provides the membrane with high elongation and the necessary resistance to heat aging, puncture, and rotting.
The membrane is available in thicknesses of 4 and 5 mm.

The lower face of **SPY** membranes is covered with a burn-off polyethylene film, while the upper face is covered with polyethylene film, fine sand, granules or colored slates when membrane is used as exposed top layer, to provide a weather protection surface with appealing decorating color.

SPY waterproofing membrane is manufactured from high quality distilled bitumen modified with the SBS to provide an extreme low cold flexibility up to -20°C.

Advantages:

- Excellent elasticity.
- High flexibility at low temperatures.
- Resistance to aging.
- High puncture and tear resistance.
- Good resistance to acids, sulphates and chlorides.

Application:

- Observe American standard ASTM D5295 and Jordanian standard JS 1274 for the preparation of concrete surfaces for adhered (bonded) membrane waterproofing systems.
- Lay down the rolls so that the lower face with polyethylene film is applied in contact with the surface.
- To fix the roll to the surface, use a propane gas burner to melt off the polyethylene film and a thin layer of bitumen while unrolling and laying the membrane.
- Side laps 100 mm and end laps 150 mm.
- The membrane may be loosely laid, partially or fully bonded, depending on the structure and the specifications.

Uses:

Due to its very low cold pliability, **SPY** is used in areas where severe weathering conditions are expected such as:

- Roofs (reinforced concrete, prefabricated concrete, metal and timber deck).
- Multi-story car parks.
- Underground foundations, basements, and retaining walls.
- Reservoirs, basins and canals.
- Swimming pools.

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SPY

Technical Specifications

Property	Result	Test Method	Tolerance According to UEAtc 31*
Dimension *(m/roll)*	1x10	BS EN 1848-1	± 1%
Thickness *(mm)*	4 or 5	BS EN 1849-1 ASTM D5147	± 5% (avg.)
Weight per roll *(Kg)*	50 or 62	BS EN 1848-1	PE ± 10% GR ± 15%
Reinforcement	Nonwoven Polyester 200 g/m²	UEAtc MOAT 31	± 15
Penetration at 25°C *(dmm)*	25	ASTM D5	± 10
Softening point *(°C)*	≥130	ASTM D36	
Heat Resistance	No flowing after 2 hours at 100 °C	BS EN 1110	MDV**
Flexibility at low temperature (-10°C to -20°C)	No cracking	BS EN 1109	MDV**
Tensile Strength *(N/5cm)* Long. Transv.	 950 750	ASTM D5147 & D146 & BS EN 12311	± 20%
Ultimate Elongation *(%)* Long. Transv.	 45 50	ASTM D146 & BS EN 12311	± 15%
Tear Strength *(N)* Long. Transv.	 450 350	ASTM D4073	MDV**
Water Absorption *(%)*	<1	ASTM D5147	-
Static Indentation Resistance	Not perforated at 25 kg. (Class L4)	BS 747	-
Water Pressure Resistance	No leakage at 1000 mm water head/24 hrs.	UEAtc MOAT 27	-
Water Vapor Transmission	0.2 g/m² per day	ASTM E96	-
Resistance to U.V.	No deterioration	ASTM G53	-
Chemicals Resistance	Resistant to alcohol, salt solutions, dilute acids and alkalis.	UEAtc MOAT27	-

**UEAtc: European Union of Agrément, MOAT No. 31*
***MDV: Minimum Declared Value*

- Acceptable deviation according to UEAtc, ASTM D6164 or ASTM D6222.
- This Technical Data is the average results of tests, measurements and trials carried out by LAMA's own laboratory and according to international standards such as ASTM, B.S and UEAtc, Acceptable deviation according to UEAtc.
- This product data sheet supersedes all previous data publications pertaining to this product.
- This data may be changed, improved or modified by LAMA, in accordance with the Client's requirements, availability of raw material, without advance notice.

Jordan Bituminous Products Center
P.O. Box 852 Amman 11953 Jordan
Tel. (+962 6) 5350401 - 5356291, Fax 5347121
www.lamawp.com
jordan@lamawp.com