MAXSHIELD® SBS



Self-Adhesive, Modified Bitumen Waterproofing Membrane with Cross Laminated PE Film

MAXSHIELD® SBS is a high performance, fully bonded, pre-formed modified bituminous waterproofing membrane laminated onto a cross laminated HDPE film and a pressure sensitive adhesive layer.

MAXSHIELD® SBS forms a permanent bond when in contact with cement slurry and develops an impervious barrier between the membrane and the structure. The arrangement of the membrane with the overlapping double layer film along with the vertical and horizontal mesh enhances tensile strength and provides UV resistance and thermal stability.

MAXSHIELD® SBS is available in both single and double side self-adhesive forms. The single side adhesive consists of layers of Valeron cross laminated film followed by the pressure sensitive self-adhesive layer and an isolation film. The double sided adhesive form consists of a Valeron cross laminated film sandwiched between two pressure sensitive adhesive layers and isolation films.

Uses

MAXSHIELD® SBS is ideal for use in the below mentioned areas:

- Below Ground Structures
- Basements
- Terraces & Podiums
- Tunnels and Subway Structures
- Roofs and Retaining Walls (R. C.)
- Roof Gardens & Planter Boxes
- Lift Pit Walls

Benefits

- Cross laminated HDPE film adds dimensional stability
- Outstanding elongation which prevents damage due to substrate movements
- Root resistant and flexible which makes detailing around edges easy
- Self-adhesive layer forms a vapour barrier when in contact with cement slurry
- Self-healing up to 2mm dia
- Localizes seepage if damaged
- Easy and quick installation

Technical Support

Thermax provides a free technical advisory service supported by a team of specialists in the field.

Properties

Membrane Thickness1.5 mmTensile Strength, MPa ASTM D412, Modified≥ 2.5Elongation at Break, % ASTM D412, Modified≥ 200Low Temperature Flexibility (ASTM D1970)-30°C, No CrackPeel Adhesion to Concrete, N/mm ASTM D903, Modified≥ 2.0Tear Strength, N ASTM D624-0035.7Puncture Resistance, N ASTM E154≥ 200Hydrostatic Pressure Resistance ASTM D5385-1993, Modified0.7MPa, 1hr, No Water LeakageWater Vapor Transmission ng/(m²Spa), ASTM E 960.36 (Relative Humidity)		
ASTM D412, Modified Elongation at Break, % ASTM D412, Modified Low Temperature Flexibility (ASTM D1970) Peel Adhesion to Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission ≥ 2.0 -30°C, No Crack -30°C, No Crack ≥ 2.0 -30°C, No Crack -30°	Membrane Thickness	1.5 mm
ASTM D412, Modified Elongation at Break, % ASTM D412, Modified Low Temperature Flexibility (ASTM D1970) Peel Adhesion to Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission ≥ 200 ≥ 200 ○ 7MPa, 1hr, No Water Leakage ○ 7MPa, 1hr, No Water Leakage ○ 7MPa, 1hr, No Water Leakage	Tensile Strength, MPa	> 2.5
ASTM D412, Modified Low Temperature Flexibility (ASTM D1970) Peel Adhesion to Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission -30°C, No Crack -30°C, No Crack -30°C, No Crack 0.70 Crack -30°C, No Crack	ASTM D412, Modified	2 2.5
Low Temperature Flexibility (ASTM D1970) Peel Adhesion to Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission -30°C, No Crack -30°C, No Crack	Elongation at Break, %	> 200
Flexibility (ASTM D1970) Peel Adhesion to Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission Peel Adhesion to 2 2.0 35.7 200 35.7 200 200 200 200 200 200 200 2	ASTM D412, Modified	2 200
Peel Adhesion to Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission ≥ 2.0 ≥ 2.0 ≥ 2.0 ≥ 2.0 35.7 ≥ 200 Puncture Resistance, N ASTM E154 0.7MPa, 1hr, No Water Leakage 0.36	Low Temperature	-30°C No Crack
Concrete, N/mm ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission ≥ 2.0 35.7 200 35.7 200 200 200 200 200 200 200 2	Flexibility (ASTM D1970)	-50 C, NO Clack
ASTM D903, Modified Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission 35.7 200 35.7 35.7 200 200 200 200 200 200 200 2	Peel Adhesion to	
Tear Strength, N ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission 35.7 ≥ 200 0.7MPa, 1hr, No Water Leakage 0.7MPa, 1hr, No Water Leakage (Relative Humidity)	Concrete, N/mm	≥ 2.0
ASTM D624-00 Puncture Resistance, N ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission V ≥ 200 0.7MPa, 1hr, No Water Leakage 0.7MPa, 1hr, No Water Leakage (Relative Humidity)	ASTM D903, Modified	
Puncture Resistance, N ≥ 200 ASTM E154 ≥ 200 Hydrostatic Pressure 0.7MPa, 1hr, No Water Resistance Leakage ASTM D5385-1993, Modified Water Vapor 0.36 Transmission (Relative Humidity)	Tear Strength, N	35.7
ASTM E154 Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission 0.7MPa, 1hr, No Water Leakage 0.36 (Relative Humidity)	ASTM D624-00	
Hydrostatic Pressure Resistance ASTM D5385-1993, Modified Water Vapor Transmission 0.7MPa, 1hr, No Water Leakage 0.36 (Relative Humidity)	Puncture Resistance, N	≥ 200
Resistance ASTM D5385-1993, Modified Water Vapor Transmission Leakage 0.36 (Relative Humidity)	ASTM E154	
ASTM D5385-1993, Modified Water Vapor Transmission O.36 (Relative Humidity)	Hydrostatic Pressure	0.7MPa, 1hr, No Water
ModifiedWater Vapor0.36Transmission(Relative Humidity)	Resistance	Leakage
Water Vapor 0.36 Transmission (Relative Humidity)	ASTM D5385-1993,	
Transmission (Relative Humidity)	Modified	
(totalion)	Water Vapor	0.36
ng/(m²Spa), ASTM E 96	Transmission	(Relative Humidity)
	ng/(m ² Spa), ASTM E 96	

Instructions for Use

Surface Preparation

The long term durability of any waterproofing system is determined by the adhesive bond achieved between the waterproofing membrane and the substrates. It is most important therefore, that the substrates are correctly prepared prior to application.

For Horizontal Installation

All surfaces must be sound and solid to facilitate proper installation of the membrane to eliminate movement during the concrete pour. The surface must be uniform and smooth and free of irregularities, sharp protrusions, oil, grease and other contaminants. Standing water must be removed before application of the SBS membrane. If there is running underground water prior to installation of basement, temporary diversion is recommended.

For Vertical Installation

Smooth, clean, dry and uniform surface is a must. In any case sharp protrusions on surfaces must be avoided.

MAXSHIELD® SBS

Membrane Installation

MAXSHIELD® SBS must be laid to a specific length before unrolling it. Once the membrane is aligned, it is to be unrolled with the Valeron cross laminated film facing the side to receive concrete. To avoid build-up of end joints, the unrolled membrane must be in a staggered laying method. It should be aligned along the previously laid membrane with 120mm edge laps and 80-120mm end laps.

Prepare and keep aside cement slurry in a container (using electrical mixer), prior to the application of MAXSHIELD® SBS. After laying the membrane, the surface is to be dampened before paving of cement slurry. Isolation and overlap films must be removed and pressed firmly to remove any entrapped air between the membrane and the slurry. For all joints and overlaps, roller must be used to ensure complete adhesion.

Note: Application must be carried out by Thermax authorized applicator for best results. In the event of any doubt upon any critical parameter it is advisable to seek clarification from our technical representative and refer to our Method Statement.

Precautions

- Avoid installation in rainy seasons and stagnant water conditions.
- Not to be subjected to traffic; to be protected by protective screed.

Health and Safety Instructions

Wear suitable protective clothing, gloves and eye protection. Do not use solvent. MSDS Safety data sheet is available with our technical department and can be sent on specific request.

Protect the fully executed waterproof membrane after installation to avoid damages. Two site personnel recommended to lift MAXSHIELD[®] SBS.

Storage

Store away from direct sunlight in a cool and dry place in an upright position. MAXSHIELD® SBS has a shelf life of 12 months when stored properly.

Packing

MAXSHIELD® SBS is supplied in the following thicknesses for 1m × 20m / roll:

- Single Sided Adhesive: 1.2mm, 1.5mm and 2mm.
- Double Sided Adhesive: 1.5mm and 2mm.

Other Segments:

- Concrete Admixtures Surface Treatments Grouts & Anchors Repair & Rehabilitation
- Protective Coatings Industrial Flooring Waterproofing Sealants Adhesives

Disclaimer: The information contained in this document is true and accurate to the best of our knowledge and is based on our experience & test results. It is always the Company's endeavor to give true and accurate information however as it does not have any direct and/or continuing control on the use of the Products, the Company cannot accept any liability, direct or indirect as a consequence of the use of Products. In the event of any doubt upon any critical parameter it is advisable to seek clarification from our technical representative.

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