

GARDEN SBS

Anti-Root Membranes



GARDEN SBS are Anti-Root membranes for the protection of planters and roof slabs under roof GARDEN from damage by plant roots.

SALIENT FEATURES

- Designed for roof gardens, Planters, Subways etc.
- Non harmful to plants.
- Tough membrane for prolonged life.
- Superior bonding to concrete and at seams.

DESCRIPTION

GARDEN SBS membranes are made by blending special long life chemical additives to the SBS modified bitumen compound. The additives do not allow roots to penetrate the membrane, without causing any harm to the plant or vegetation. **GARDEN SBS** membranes are impermeable to water and easy to apply.

QUALITY ASSURANCE & MATERIAL WARRANTY

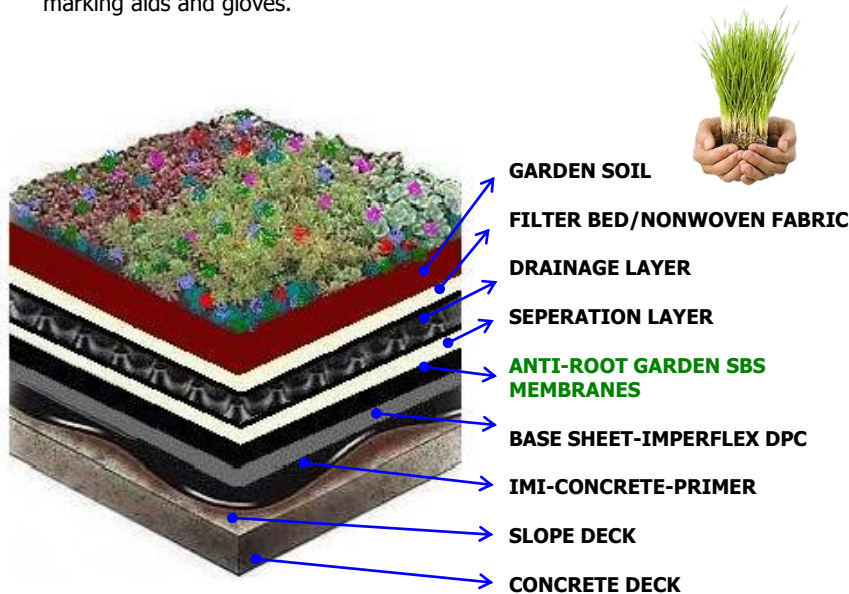
Imperbit Membrane Industries' Management system is registered to ISO 9001 standards & all **GARDEN SBS** membranes carry a 10 year material warranty. In addition to stringent regular test by IMI laboratory, our products are also tested periodically by independent laboratories.

SURFACE FINISH AND SIZE OF ROLL

The top surface of the membrane is covered with a thin layer of PE film with IMI Logo or sand. The bottom surface is covered with printed IMI design film
The membranes are produced in thickness of 3.2 mm, 4 mm, 4.5 mm and 5 mm and in a standard length of 10 mtrs. And 1 mtr width.
Imperflex DPC are available as a base sheet in thickness of 2.6mm or 3mm.

TOOLS FOR FIXING THE MEMBRANE

Gas torch for welding, related cylinder, knife for trimming the membrane, a trowel with a rounded tip, marking aids and gloves.



TYPICAL ROOF GARDEN SBS APPLICATION

The roof deck or planters must be clean and free of protruding nibs, nails, oil and grease. (Slope concrete shall be laid to desired slope over the RCC roof slab) IMI Concrete Primer should be applied to the concrete surfaces, covering the entire area. Usage is about 200 – 300 grms/m². The primer must be allowed to dry completely. Apply IMPERFLEX-DPC membrane as a base layer to the primed concrete by torching the underside.

SBS Membranes are generally soft therefore care should be taken when applying heat to the underside or when making a lap joint, which should be heated from top to produce a thin bead of molten bitumen at the seam, then be smoothened out with the trowel to ensure a properly welded joint. Make side laps minimum 10 cm & end laps 15 cm. Bond **GARDEN SBS** 3.2, 4, 4.5 or 5mm membranes over the base layer by torching the underside. Stagger lap joints so that the lap joint of the top layer does not fall over a lap joint of the base layer.

A separation layer of geotextile is used over the **GARDEN SBS** membrane. Over the separation layer it is recommended to use a draining bed of loose gravel round shaped size 25 – 40 mm topped by a filter bed/nonwoven fabric before filling in the GARDEN soil. Care should be taken to reinforce cant strips in planters. This is necessary to reduce the pressure on the membrane at all internal angles. Proper design of planters will ensure excess water runoff to drains. Drain outlets must be constructed at GARDEN membrane level.

EXPOSED ROOFING SYSTEM

For exposed application, skirting and flashings, **GARDEN SBS MINERAL** membranes are used. These are produced with a self-protecting layer of natural or colored slate flakes. The membranes are provided with a selvedge 10 cms wide that is granule-free. This facilitates the forming of lap joints. End of roll joints are made by scraping off 15cm of mineral flakes or heating 15 cms of the mineral surface sufficiently to press-in the slate and expose the bitumen. The next roll is then torched to the bitumen of the exposed area.

CORNERS AND TERMINATION Use fillets or cant strips at all internal corners and chamfer external corners before applying the membrane. Apply a 600-mm wide reinforcing strip of **GARDEN SBS** over the corners followed by the full membrane. Top edges of the membrane should be terminated in a chase on vertical surfaces, followed by a suitable sealant.

Properties		200	270	DR	DR-PLUS	Method of Testing
Reinforcement core		200 gr./m ² polyester	270 gr./m ² polyester	200 Polyester +60 glass fiber tissue	250 Polyester +60 glass fiber tissue	UEAtc, MOAT 31: Para F
Nominal thickness of membrane		3.2, 4 & 5 mm			4.0, 4.5 & 5 mm	UEAtc, ASTM D 5147
Tensile Strength N/5cm	Longitudinal	900	1150	900	1150	UEAtc
	Transversal	650	850	600	850	
Tensile Strength kN/m	Longitudinal	16	20	16	20	ASTM D 5147
	Transversal	12	15	10	15	
Elongation, %	Longitudinal	45	45	35	40	UEAtc, ASTM D 5147
	Transversal	50	50	45	45	
Tear Strength, N (Notch Method)	Longitudinal	500	600	500	600	ASTM D 5147
	Transversal	400	500	400	500	
Puncture Resistance, N		900	1100	900	1100	ASTM E 154
Dimensional Stability L/T		± 0.5%		± 0.2%		UEAtc, ASTM D 5147
Resistance to Hydrostatic pressure		>7 bars (>70 M)				DIN 1048, ASTM D 5385
Flexibility at low temperature		-10 °C				UEAtc, ASTM D 5147
Softening Point *		115 °C				UEAtc, ASTM D 36
Penetration @25°C *		25 dmm				UEAtc, ASTM D 5
Heat resistance @ 100°C		No flow				UEAtc
Water absorption @ 24 hrs.		0.15%				ASTM D 570

* Compound Properties (Tested during manufacturing process)

The technical data given here are the average results of tests carried out in our laboratory on the **GARDEN SBS** membrane. IMI reserves the right to change or modify the data without prior notice. All reasonable care has been taken in compiling the data that to the best of our knowledge is accurate and true. All recommendations are made in good faith. No responsibility can be accepted by us and no warranty is implied with regard to any of the recommendations made in this data sheet, since the conditions of actual use and the labour involved are beyond our control. **GARDEN SBS** membranes are warranted to be free from manufacturing defects for a period of 10 years. **GARDEN SBS** membranes are not affected by chlorides, sulphates & phosphates as well as dilute acids found in ground water.

Storage:

Rolls must be kept up right at all times, in a covered well-ventilated storage area, away from sources of direct heat. If ambient temperatures at storage site fall below 10°C, the rolls should be exposed to warmer temperatures of 10°C to 40°C for periods of upto 2 hours prior to use to facilitate unrolling of the membranes. If stacking is necessary, ensure that rigid sheet of plywood is placed between the pallets. Do not stack more than 2 high. **GARDEN SBS** membrane has a shelf life of 12 months from the date of production, if stored in a cool, dry store in original unopened packing.

Packing Configuration:

3.2P-PBS 28 rolls per pallet
 4P-PBS 23 rolls per pallet
 5P-PBS/MINERAL 16 rolls per pallet
 4P MINERAL 20 rolls per pallet
 Nominal roll length for above products = 10 mtrs

Indicative Loading Capacity for 4mm thickness:

552 Rolls per 40 ft Trailer / 468 Rolls per 20 ft Container

Product generic name:

SBS B-200-3.2P-PBS
 SBS B-200-4P-PBS/MINERAL
 SBS B-200-5P-PBS/MINERAL
 SBS B-270-4P-PBS/MINERAL
 SBS B-270-5P-PBS/MINERAL

HANDLING PRECAUTIONS: GARDEN SBS membranes have no health hazard when used with our standard application recommendations. IMI CONCRETE primer contains a flammable solvent with flash point of 42°C. Use primer in well ventilated areas away from sources of direct heat or ignition. Inhalation must be avoided and the use of protective clothing, rubber gloves, goggles and barrier cream is recommended. Do not use solvent to clean skin. After work clean hands with soap and warm water or suitable mild detergent. Obtain immediate medical advice if redness or skin irritation appears. In case of mouth or eye contact, flush immediately with fresh water and seek medical advice.



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* This technical data sheet supersedes all previous publications pertaining to this product

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