

GARDEN APP

Anti-Root Membranes



GARDEN APP is 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.
- Will not harm plants.
- Tough membrane for prolonged life.

DESCRIPTION

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

EKO GUARD DPC are available as a base sheet in thickness of 2.6mm or 3mm.

QUALITY ASSURANCE & MATERIAL WARRANTY

Imperbit Membrane Industries' Management system is registered to ISO 9001 standards & all **GARDEN APP** 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 4 mm and 5 mm and in a standard length of 10 mtrs. And 1 mtr width.

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 APP APPLICATION

The roof deck or planters must be clean and free of protruding nibs, nails, oil and grease. 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 EKO GUARD-DPC membrane as a base layer to the primed concrete by torching 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 smoothed out with the trowel to ensure a properly welded joint. Make side laps minimum 10 cm & end laps 15 cm. Bond **GARDEN APP** 4 or 5mm over the base layer by torching the underside lightly. Stagger lap joints so that the lap joint of the top layer does not fall over a lap joint of the base layer.

EXPOSED ROOFING SYSTEM

For exposed application, skirting and flashings, **GARDEN APP** 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.

A separation layer of geotextile is used over the **GARDEN APP** membrane. It is recommended to use a draining bed of gravel topped by a filter bed 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.

Properties		Typical values		Method of Testing
Reinforcement core		200 gr/m ²	270 gr/m ²	UEAtc, MOAT 31: Para F
Nominal thickness of black membranes		3, 4, 4.5 & 5 mm	4,4.5 & 5 mm	UEAtc, ASTM D 5147
Nominal thickness of granule surface membrane		4.3 & 5 mm	4.3 & 5 mm	ASTM D 6222 Type II
Tensile strength @ 25°C	Longitudinal	950 N/5 cm	1200 N/5 cm	UEAtc
	Transversal	650 N/5 cm	1000 N/5 cm	
Peak load @ 25°C Before and after heat condition	Longitudinal	18 kN/M	20 kN/M	ASTM D 5147
	Transversal	12 kN/M	17.5 kN/M	
Elongation	Longitudinal	40 %	45 %	UEAtc
	Transversal	50 %	50 %	
Tear strength	Longitudinal	500 N	625 N	ASTM D 5147
	Transversal	400 N	550 N	
Puncture Resistance, N		950	1200	ASTM E 154
Puncture Resistance	Static Indentation	L ₄		UEAtc
	Dynamic @ 9 joules	I ₄		
Flexibility at low temperature		-5 °C		UEAtc, ASTM D 5147
Dimensional Stability, L/T (%)		± 0.5		UEAtc, ASTM D 5147
Softening Point *		155 °C		UEAtc, ASTM D 36
Penetration @ 25°C *		20 dmm		UEAtc, ASTM D 5
Water absorption, % Wt.		< 0.2%		ASTM D 570
Heat resistance, 110 °C		No flow		UEAtc, ASTM D 5147
Impermeability of membrane to water		Absolute		UNI 8202
Resistance to hydrostatic pressure		> 70 mtrs (> 7 bar)		DIN 1048, ASTM D 5385

* 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 APP** 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. **GARDEN APP** membranes are warranted to be free from manufacturing defects for a period of 10 years. 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 APP** membranes are not affected by chlorides, sulphates & phosphates as well as dilute acids found in ground water.

Packing Configuration:

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:

APP XG-200-4P-PBS/MINERAL
 APP XG-200-5P-PBS/MINERAL
 APP XG-270-4P-PBS/MINERAL
 APP XG-270-5P-PBS/MINERAL

HANDLING PRECAUTIONS: GARDEN APP

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.

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 15°C, the rolls should be exposed to warmer temperatures of 15°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 APP** membrane has a shelf life of 12 months from the date of production, if stored in a cool, dry store in original unopened packing..

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

GARDEN APP
Code: QC-DSM-10
Implementation Date: 28 June, 2010
Ed-02