



LAMA GARDEN

Anti-Root Waterproofing Membrane

Introduction:

LAMA GARDEN water-proofing membrane, torch applied, 4 or 5 mm thick, is specially treated to resist the plant root penetration and designed for use in planted roofs.

Description:

LAMA GARDEN water-proofing membrane is manufactured from high quality distilled bitumen and APP elastomers, the bitumen is specially treated with an antiroot formulation, with the addition of Preventol B2, which acts only on the roots without damaging plants and cultivations. The reinforcement 180 or 200 g/m² nonwoven polyester fabric reinforced with fiberglass filaments to give high elongation and to provide the membrane with the required resistance to heat aging, puncture, and rotting. The lower surface is covered with a burn-off Polyethylene film.

Granules or colored slates membrane surfacing can be supplied when used as exposed top layer to guard from UV and to provide a weather protection surface with appealing decorative color to the parapets.

Advantages:

- Excellent elasticity.
- Plant root resistance.
- Rot resistant.
- High flexibility at low temperatures.
- Resistance to aging.
- High puncture and tear resistance.
- Good resistance to acids, sulfates and chlorides.
- High dimensional stability.

Instructions for Use:

LAMA GARDEN can only be installed with experienced waterproofing contractors.

To fix the sheet to the substrate, 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 can be applied onto the vertical walls and must extend at least 10 cm above the top level of the soil, to insure that no overflow of irrigation water that passes behind the waterproofing layer.

Field of Application:

Due to its anti-root capability, LAMA GARDEN is used in areas where plantation can damage the waterproofing layers, such as:

- Roofs Gardens.
- Top of underground garages.
- Green Oasis in houses.
- Flora bed.



QMS Certified Firm

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Technical Specifications

Property	Result		Test Method
	Garden 180	Garden 200	
Dimension, m/roll	1x10	1x10	
Thickness, mm	4, or 5	4, or 5	UEAtcMOAT 30
Weight per roll, Kg	48 or 58	48 or 58	UEAtcMOAT 30
Reinforcement	Nonwoven spunbonded polyester & fiberglass 180 g/m ²	Nonwoven spunbonded polyester & fiberglass 200 g/m ²	BS 747
Penetration at 25°C, dmm	20±10	20±10	ASTM D5
Softening point, °C	≥150	≥150	ASTM D36
Cold Pliability	No cracking at -10 °C	No cracking at -15 °C	UEAtc MOAT27
Tensile Strength, N/5cm.			UEAtcMOAT 30
Long.	800	950	ASTM D146
Transv.	600	750	
Ultimate Elongation, %			UEAtcMOAT 30
Long.	45	50	ASTM D146
Transv.	40	45	
Water Absorption, %.	<1		ASTM D5147
Heat Resistance	No flowing after 2 hours at 100 °C.		UEAtcMOAT 30
Static Indentation Resist.	Not perforated at 25 kg. (Class L4).		UEAtc MOAT27
Water Pressure Resistance	No leakage at 1000 mm water head/24 hrs.		UEAtc MOAT27
Water Vapor Transmission	0.2 g/m ² per day		ASTM E96-90
Resistance to Chemicals	Resistant to alcohol, salt solutions, dilute acids and alkalies.		

- 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 RSS laboratories according to international standards such as ASTM, B.S and 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.