

DEFEND ANTIROOT POLYESTER

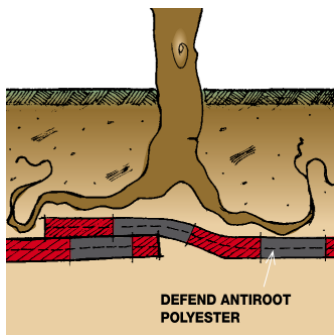
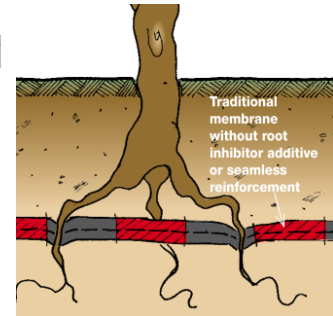
(ELASTOPLASTOMERIC POLYMER-BITUMEN WATERPROOFING MEMBRANE, WITH AN ANTIROOT ADDITIVE, FOR PROTECTING ROOF GARDENS, SUNKEN WORKS AND GRAVEL COVERED ROOFS)

HOW TO REALISE A WATERPROOFING LAYER IN DIRECT CONTACT WITH THE GROUND THAT IS RESISTANT TO THE PENETRATION OF ROOTS ALSO AT THE JOINTS?

Description

DEFEND ANTIROOT POLYESTER is a root resistant waterproofing membrane. The antiroot properties are obtained by adding phenoxi-fatty acid ester, a specific antiroot agent, to the polymer-bitumen compound.

Once applied, DEFEND ANTIROOT POLYESTER forms a continuous barrier against roots. As it does not contain film or double-reinforced foils, DEFEND ANTIROOT POLYESTER is more flexible and malleable during application. The additive has been developed specifically as a root inhibitor, for both hot-laid bitumen and for torch-laid bitumen membranes. The product comes from thirty years of German experience in the waterproofing industry.

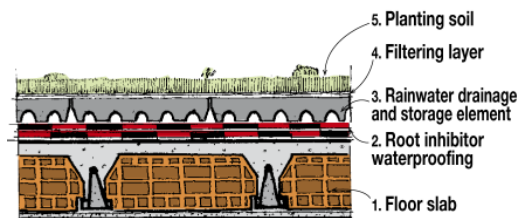


DEFEND ANTIROOT POLYESTER is made up of distilled and selected bitumen for industrial use containing a high quantity of elastoplastomeric polymers such as to obtain a "phase inversion" alloy.

The continuous phase of this alloy consists of the polymer in which the bitumen is dispersed, where the characteristics are determined by the polymer matrix and not by the bitumen, even if it is the largest ingredient. The performance of bitumen is therefore increased, durability and resistance to high and low temperatures are improved, thus maintaining the bitumen's already excellent qualities of adhesion and waterproofing. The reinforcement of the membrane consists of a single strand Spunbond non-woven polyester fabric, with high basic weight (grammage). This fabric is isotropic, rot-proof, thermally fixed and boasts: high mechanical resistance, considerable ultimate elongation, excellent resistance to punching and laceration. DEFEND ANTIROOT POLYESTER has both faces coated with Flamina, the hot-melt film, which stops the rolls of material from sticking

Applications field

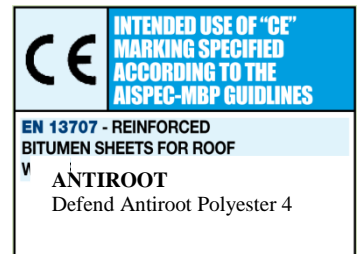
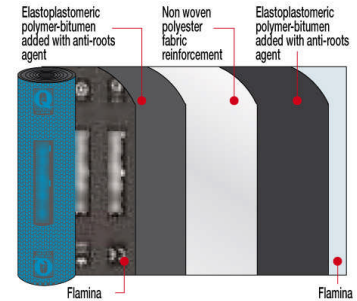
It is always applied as the last waterproofing layer in contact with the earth for gardens. When waterproofing roof gardens for instance, it is used as the top layer of a system, the first layer being a polymer-bitumen membrane reinforced with "non-woven" polyester fabric and the second being DEFEND ANTIROOT POLYESTER which is placed astride the overlaps of the previous layer and full bonded with the torch, (see technical specifications n 10, Roof Gardens)



Method of use	Torch Application	Hot Air Applicatio	Nailing
	✓	✓	✓



Loading Table (in Metric Tons)	Product specifications		Loading in 20' FCL		
	Thickness	m ² /roll	Rolls/pallet	Pallets	M ²
Defend Antirroot Polyester	4 mm	10 m ²	24	20	4800

TECHNICAL SPECIFICATIONS			
Defend antiroot Polyester			
	STANDARD	T	VALUE
Reinforcement			"Non-woven" Spunbond polyester fabric
Thickness	EN 1849-1	±0,2	4 mm
Roll size	EN 1848-1		1×10 m
Watertightness	EN 1928 – B	≥	60 kPa
Shear resistance L/T	EN 12317-1	-20%	500/300 N/50mm
Maximum tensile force L/T	EN 12311-1	-20%	650/400 N 50 mm
Elongation L/T	EN 12311-1	-15%	40/40%
Resistance to impact	EN 12691 – A		1250 mm
Resistance to static loading	EN 12730 - A EN 12730 - B		15 kg 20 kg
Dimensional stability L/T	EN 1107-1	≤	-0.30/+0.10%
Flexibility to low temperature	EN 1109	≤	-15°C
Flow resistance at high temperature	EN 1110	≥	120°C
Resistance to root	EN 13948		Test passed
Reaction to Fire – Euroclass	EN 13501-1		E
External fire performance	EN 13501-5		F roof
Thermal specifications			
Thermal conductivity			0.2 W/mK
Heat capacity			5.20 KJ/K



Certification
**FORSCHUNGSANSTALT
GEISENHEIM**
to guarantee the
resistance to roots
conforms to the
European test method
EN-13948.

Finishing

- EMBOSSING FLAMINA.** The embossing on the lower surfaces of the membranes finished with Flamina film makes it possible to lay the product precisely and quickly; forming a smooth surface when melted with the torch. It indicates the correct melting temperature and lets the film retract faster. The embossing also enables optimal vapour diffusion; in spot bonded and loose laid installation, in the points where it remains intact, preventing blisters and swelling. 
- FLAMINA.** Plastic protection film helping prevent coils from sticking to the roll. As it withdraws under the action of the flame right during its installation, it signals the best melting point in order to correctly glue the membrane to the brackets and rises. When not heated, it can be used as a sliding layer. 

CATEGORY	CHARACTERISTICS			ENVIRONMENTAL						METHOD OF USE			
 SPECIAL ELASTOPLASTOMERIC FOR SPECIFIC USES	 WATERPROOF	 ROOT RESISTANCE	 REACTION TO FIRE	 ECO GREEN	 ASBESTOS FREE	 TAR FREE	 CHLORINE FREE	 RECYCLABLE	 NON DANGEROUS WASTE	 EXHAUSTED OIL FREE	 TORCH APPLICATION	 HOT AIR APPLICATION	 NAILING

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