

Defend H

Elastomeric, torch applied plant root repellent membrane, reinforced with rot-proof single strand spunbond non-woven polyester fabric

USES

Defend H is always applied as the last waterproofing layer in contact with the earth for gardens, foundations, underground garages and tunnels covered with soil, road structures and roofs under gravel etc. 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 H which is placed astride the overlaps of the previous layer and full bonded with the torch. Defend H is used in all waterproofing systems in contact with the ground or where there is a risk of the system being attacked by roots.

ADVANTAGES

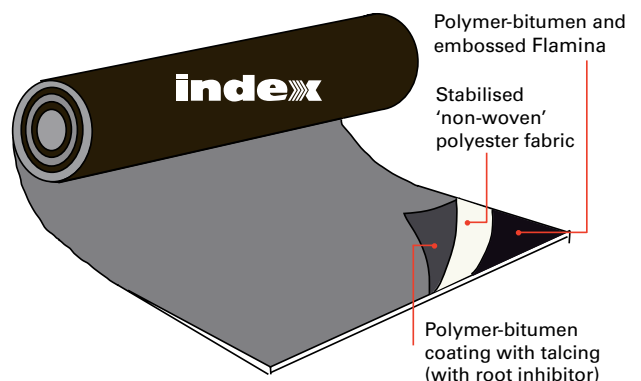
- Resistant to roots also at the overlaps
- Does not disperse dangerous substances in the environment
- Puncture resistant

DESCRIPTION

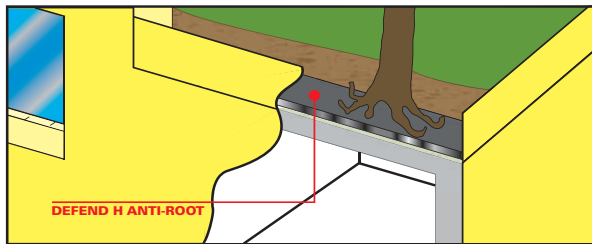
Defend H is an elastoplastomeric polymer-bitumen waterproofing membrane, with an antiroot additive, reinforced with a 'non-woven' single strand spunbond polyester fabric for protecting roof gardens, sunken works and gravel covered roofs. The antiroot properties are obtained by adding phenoxi fatty acid ester, a specific antiroot agent, to the polymer-bitumen compound.

Once applied, Defend H forms a continuous barrier against roots, even along the overlaps, due to the fact that the entire compound which forms the waterproofing mass is activated. Defend H is resistant to roots throughout the entire thickness of the membrane, including the overlaps, where the antiroot barrier is formed by a single 4 mm thick layer. Defend H does not contain films or metallic foil and is therefore flexible and malleable during application. The antiroot additive does not migrate in the ground nor is it washed out by water and it is resistant to the heat produced by torch bonding the overlaps. Defend H is made of distilled bitumen, selected for industrial use, with a high content of elastomeric and plastomeric polymer additives to obtain a

phase inversion compound whose continuous phase is formed by polymers in which the bitumen is dispersed, where the characteristics are determined by the polymeric matrix and not by the bitumen even if this is the most consistent ingredient. The performance of the bitumen is therefore incremented along with the durability and the resistance to high and low temperatures while the already optimum adhesive and impermeable qualities of the bitumen remain unchanged. The reinforcement of the membrane consists of a 'non-woven' single strand, high weight, polyester fabric which is isotropic, rot proof, thermally fixed, very strong and has a notable ultimate elongation combined with an optimal resistance to puncture and tearing. The upper face of Defend H is coated with a uniformly distributed, fine serigraphed talc, a patented treatment which makes it possible to quickly unroll the rolls and install the membranes with the reliable and quick welding of the joints. The underside of the membrane is coated with Flamina, a plastic film that melts when torched and which is embossed both to obtain the pretension and therefore the optimal retraction of the film and also to offer the torch a greater surface area for faster and more reliable installation. When the membrane is loose laid or spot bonded, the embossing diffuses the vapour. The reinforcement and the waterproofing mass are resistant to chemicals, humic acid and fertilisers.



PARCHEM	CONCRETE REPAIR	FLOORING	JOINTING SYSTEMS	WATERPROOFING
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PROPERTIES

Product code:	771184
Reinforcement:	Non-woven spunbond polyester fabric
Flow resistance at 120°C:	Stable
Flexibility at low temperatures:	- 10°C
Tensile strength (EN12311-1)	
- longitudinal	600 N/50 mm
- transverse	400 N/50 mm
Ultimate elongation (EN12311-1)	
- longitudinal	35%
- transverse	40%
Shear resistance of joints (EN12317-1):	≥ 500 N/50 mm or breakage outside the joint
Puncture resistance on cement (static/dynamic)	PS ₄ /PD ₄
Dimensional Stability:	-0.50 / +0.30%
Impermeability to water:	≥60 kPa
Resistance to roots:	test passed

MAINTENANCE

No special requirements, any damage identified during normal inspections should be repaired or replaced as appropriate.

APPLICATION INSTRUCTIONS

Surface Preparation

All surfaces receiving the Defend H membrane must be firm, dry, and free from contaminants and loose material. It must also be even and smooth, without any elements that could damage the membrane. Rough concrete must be "faired up" before commencing application. Contact your local Parchem office for suitable fairing products from our extensive range.

Priming

Index Bitumen Primer should be applied to all the prepared surfaces prior to the application of the membrane and allowed to dry. The primer will take at least one hour to dry at temperatures 25°C and above. At lower temperatures allow additional drying time.

Index Bitumen Primer should be applied at the rate of approximately 0.13 litres per square metre to the surface to which Defend H will be applied. The coverage rate for the primer will vary depending on the porosity of the surface being treated.

Primer may be applied by brush, roller or spray equipment, coverage must be uniform. Primed areas must be covered with the membrane on the same day.

Application

Planning the installation of the membrane is important to ensure joints occur in suitable locations.

Defend H membrane must be laid to allow side laps of 10 cm and end laps of 15 cm. If the membrane is to be spot bonded, full bonding must occur for 1 m each side of the end laps. Application of the membrane is by torch bonding using a suitable gas torch. The membrane is applied with the surface protected by the Flamina facing down towards the substrate, during the application of the gas flame the Flamina will melt away.

Beginning at the lowest point of the deck area and working in the direction of the slope towards the highest point. The first roll of membrane is unrolled completely and aligned, remaining rolls should be unrolled approx. halfway in order to properly align the 10 cm side lap and ensure the required 15 cm end lap is maintained.

Starting at the low point in the deck apply heat by the gas torch to the outer surface of the rolled portion of membrane while un-rolling, move the flame from side to side while unrolling the membrane by slightly pressing it onto the underlying surface. Avoid shifting the roll while unrolling. Follow the edge of the deck or the lap line. In order to have a smooth and even seal at the joint, apply the flame to the bleed out and the trowel simultaneously and spread the melted compound evenly to seal the joint.

Proceed torching the remaining membrane as described above, working your way to the highest point on the deck always maintaining the 10 cm side lap and 15 cm end lap.

On completion of the membrane installation all exposed perimeter edges must be mechanically fixed or terminated under a flashing.

PROTECTION

Whilst the Defend H membrane is based on a polymer modified bitumen which is resistant to UV, it is not recommended for long term exposure without some form of protective topping medium.

Where the membrane is to be back filled, such as with basement applications, the Defend H should be protected from mechanical damage with the Emer-Proof Drain V drainage/protection system also available from Parchem.

ESTIMATING

Supply

Defend H:	4 mm 1 m wide rolls, 10 m long
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Emer-Proof Drain V:	2m x 20m roll
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Note: no allowance has been made for wastage.

COVERAGE

Defend H:	Approx. 9 m ² / 10 m roll allowing for overlaps
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Index Bitumen Primer:	8 m ² /litre
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Emer-Proof Drain V:	40 m ² /roll
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Note: no allowance has been made for wastage.

STORAGE

Store in cool, dry conditions ie. not exceeding 25°C.

Rolls must be stored on end and must not be stored lying down.



ADDITIONAL INFORMATION

Parchem provides a wide range of complementary products which include:

- waterproofing membranes – liquid applied, cementitious and bituminous sheet membranes
- concrete repair – cementitious and epoxy
- grouts and anchors – cementitious and epoxy
- waterstops – pvc and swellable
- joint sealants – building, civil and chemical resistant
- industrial flooring systems – cementitious and epoxy
- architectural coatings
- filler boards – swellable cork, bituminous and backing rod
- ancillary products

For further information on any of the above, please consult with your local Parchem sales office.

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

PRODUCT DISCLAIMER

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.