PermaSEAL Root Barrier & Separation Membrane

Description

PermaSEAL Root Barrier & Separation Membrane is a high-performance, multi-purpose, needle punch nonwoven membrane. UV stabilised and tough, it forms a highly effective root protection layer for use in extensive and intensive green roofing. Purpose-designed, it will also act as a separation layer on mechanically fixed, single-ply roofs and under domestic driveways.

Uses

This green roof root barrier is suitable for both pitched and flat, intensive and extensive systems. Intensive roofs usually require a root protection and separation layer to protect from mechanical damage during the ongoing upkeep and maintenance of the living roof.

Advantages

- Maintains a stable soil structure by building up a natural filter
- Permeability is maintained throughout its lifetime
- Resistant to most alkalis and acids, organic solvents and electrolyte attack
- Tough and durable with high tear resistance
- Easy to cut and lightweight to handle
- High operational temperatures, does not melt before 160°C
- High resistance to stress and cracking

Installation

The root barrier membrane is laid out over the waterproofing layer (in green roof applications) in 1.12m wide strips and cut to length. Overlap sections of the membrane by a minimum of 150mm. The underside of the membrane has a rough texture to help it grip to the topside of the next section.

For extra protection we would advise that the face of the overlap joint is sealed using PM Profi Band Tape. This would be required for all intensive green roof applications.

Perforations through the root barrier for service penetrations that cannot be avoided at design stage, should be sealed using PM Power Fix.

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Weight	EN ISO 9864	11 (+/- 11.1)gsm	
Thickness at 2kPa	EN ISO 9863-1	0.9 (+/- 0.18)mm	
		MD	CD
Tensile strength	EN ISO 10319 9	9,0 (-1.2)kN	9,0 (-1.2)kN
	EN 12311-1	400 (-40)N/50mm	400 (-40)N/50mm
Tensile elongation	EN ISO 10319	45 (+/-10)%	45 (+/-10)%
Elongation	EN 10319	45 (+10)%	50 (+10)%
Nail tear strength	EN 12310-1	200 (-20)N	200 (-30)N
Weathering resistance	EN 12224	90% retain strength	90% retain strength
Resistance to liquids - acid	EN 14030	90% retain strength	90% retain strength
Resistance to liquids - alkaline	EN 14030	90% retain strength	90% retain strength
Oxidation resistance	EN ISO 13438	90% retain strength	90% retain strength
Resistance to soil burial	EN 12225	90% retain strength	90% retain strength

Resistance to static puncture	EN ISO 12236	1600 (-240)N
Dynamic perforation resistance	EN ISO 13433	32 (+8)mm
Characteristic opening size	EN ISO 12956	95 (+/-28.5)
Water permeability VIH50	EN ISO 11058	120 (-36)mm/s
Water flow rate	EN ISO 11058	120 (-36)l/m2/sec
Water vapour resistance	EN ISO 12572	0.02 MNs/g
Equivalent air layer thickness	EN ISO 12572	0.004 sd(m

D = machine direction (along roll), CD = cross direction (across roll).

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