

HYDRODUCT[®] Green Roof Composite

High impact, creep-resistant geocomposite and root barrier for use with GCP waterproofing membranes on green roof applications

Product Description

HYDRODUCT[®]Green Roof Composites are a highly robust, preformed geocomposite drainage and root barrier sheet system designed for green roof applications. Comprising a high-impact, studded polystyrene core bonded on one side with a nonwoven, needle-punched polypropylene filter and root barrier fabric and, on the other side, a nonwoven, needle-punched polypropylene separation fabric, the HYDRODUCT[®]Green Roof Composites provides an economical solution for root penetration protection, drainage, aeration, water storage and membrane protection in an easy-to-install system. The HYDRODUCT[®]Green Roof Composites are part of a full green roof waterproofing system to include PROCOR[®]Deck System 3R or BITUTHENE[®]Deck System.

Uses

HYDRODUCT[®]Green Roof Composites are designed for horizontal green roof applications. When rain or water enters the growing medium, excess water flows from the growing medium through the root barrier filter fabric into the drainage core. The root barrier, treated with a natural root inhibitor, re-directs the growth of the roots away from the drainage core, preventing penetration into the insulation layer and waterproofing system. Excess water from the growing medium fills the water storage cones in the drainage core, holding it until it is re-absorbed into the growing medium as needed. Excess water flows through pre-punched holes in the top of the composite allowing water to flow through the drainage core to the collection system. The geotextile root barrier and the geotextile separation layer are securely bonded to the core to prevent intrusion of the fabric into the core during service. HYDRODUCT[®]Green Roofs Composites are available in two depths based on design requirements.

Application Procedures

Safety, Storage and Handling Information

All construction products must be handled properly. SDS (Safety Data Sheets) are available and users should acquaint themselves with this information. Carefully read detailed precaution statements on product labels and the SDS before use.

Installation

- HYDRODUCT® Green Roof Composites can be placed over the insulation layer or other rigid protection sheet, providing job site conditions allow the composite to remain as placed. DO NOT place directly on the waterproofing membrane. Additional ballast consideration should be given in high wind exposures. Abut all edges tightly with the excess geotextile placed over the adjacent roll in shingle fashion.
- To secure HYDRODUCT® Green Roof Composites around protrusions, apply PREPRUFE® Detail Tape around the protrusion in a picture frame configuration.
- Cut HYDRODUCT® Green Roof Composites to fit snugly around the protrusion. Press HYDRODUCT® Green Roof Composites core firmly into the PREPRUFE® Detail Tape.
- HYDRODUCT® Green Roof Composites should be covered promptly. Do not leave HYDRODUCT® Green Roof Composites exposed to sunlight for more than two weeks. Motor vehicles, construction equipment or other trades should not be allowed directly on the HYDRODUCT® Green Roof Composites.

Supply

PROPERTY	HYDRODUCT® 500RS VALUE	HYDRODUCT® 550RS VALUE
Roll size	4 ft x 50 ft (1.2 m x 15.2 m) 200 ft ² (18.6 m ²)	3 ft x 50 ft (0.91 m x 15.2 m) 150 ft ² (13.9 m ²)
Packaging	6 rolls/pallet	2 rolls/pallet
Weight	44 lbs (18.1 kg)/roll	40 lbs (20 kg)/roll

COMPLIMENTARY MATERIAL	VALUE
PREPRUFE® Detail Tape	2 in. x 50 ft (50 mm x 15 m) roll/16 rolls per carton

Physical Properties

GEOTEXTILE & ROOT BARRIER	HYDRODUCT® 500RS TYPICAL VALUE	HYDRODUCT® 550RS TYPICAL VALUE	TEST METHOD
Material	Polypropylene	Polypropylene	
Root barrier coating	Copper hydroxide	Copper hydroxide	
Weight	5.6 oz/ft ² (195 g/m ²)	5.6 oz/ft ² (195 g/m ²)	ASTM D3776
Flow rate	23 gpm/ft ² (937 Lpm/m ²)	23 gpm/ft ² (937 Lpm/m ²)	ASTM D4491

DRAINAGE CORE	HYDRODUCT® 500RS TYPICAL VALUE	HYDRODUCT® 550RS TYPICAL VALUE	TEST METHOD
Polymer	Polystyrene	Polystyrene	
Thickness	0.44in. (11 mm)	1 in. (25.4 mm)	
Compressive strength	15,000 lbs/ft ² (718 kPa)	9,500 lbs/ft ² (933 kPa)	ASTM D1621 (mod)
Flow rate (gradient 1.0)	16 gpm/ft ² (200 Lpm/m ²)	80 gpm/ft ² (933 Lpm/m ²)	ASTM D4716
Water storage capacity	0.06 gal/ft ² (2.4 L/m ²)	0.11 gal/ft ² (4.5 L/m ²)	

GEOTEXTILE SEPARATION LAYER	HYDRODUCT® 500RS TYPICAL VALUE	HYDRODUCT® 550RS TYPICAL VALUE	TEST METHOD
Material	Polypropylene	Polypropylene	
Type	Needle-punched, nonwoven	Needle-punched, nonwoven	
Weight	4 oz/ft ² (136 g/m ²)	4 oz/ft ² (136 g/m ²)	ASTM D3776

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