HYDRODUCT® 500RS Data Sheet

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

Product Description

HYDRODUCT® 500RS 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 polypropylene 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® 500RS 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® 500RS green roof composites are part of a full green roof waterproofing system to include PROCOR® DECK SYSTEM 3R or BITUTHENE® Deck System.

Uses

HYDRODUCT® 500RS 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® 500RS green roof 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® 500RS 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® 500RS green roof composites around protrusions, apply PREPRUFE® DETAIL TAPE around the protrusion in a picture frame configuration. Cut HYDRODUCT® 500RS green roof composites to fit snugly around the protrusion. Press HYDRODUCT® 500RS green roof composites core firmly into the PREPRUFE® DETAIL TAPE.

HYDRODUCT® 500RS green roof composites should be covered promptly. Do not leave HYDRODUCT® 500RS 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® 500RS green roof composites.

Supply

HYDRODUCT® 500RS	
Roll size	4 ft x 50 ft (1.2 m x 15.2 m) 200 ft^2 (18.6 m^2)
Packaging	6 rolls/pallet
Weight	50 lbs (22 kg)/roll
COMPLEMENTARY MATERIAL	
PREPRUFE® DETAIL TAPE	2 in. x 50 ft (50 mm x 15 m) roll/16 rolls per carton

Physical Properties

PROPERTY	TYPICAL VALUE	TEST METHOD
GEOTEXTILE & ROOT BARRIER	**HYDRODUCT® 500RS**	
Weight	5.6 oz/ft^2 (195 g/m^2)	ASTM D3776
Flow rate	23 gpm/ft^2 (937 Lpm/m^2)	ASTM D4491
DRAINAGE CORE		
Thickness	0.40 in. (10 mm)	
Compressive strength	15,000 lbs/ft^2 (718 kPa)	ASTM D1621 (mod)
Flow rate (gradient 1.0)	21 gpm/ft^2 (261 Lpm/m^2)	ASTM D4716
Water storage capacity	0.042 gal/ft2 (1.7 L/m2)	
GEOTEXTILE SEPARATION LAYER		
Weight	129 g/m^2	ASTM D3776

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GCP Applied Technologies, 20 Moores Road, Malvern, PA 19355, USA.
GCP Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.
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