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 non-woven, needle-punched polypropylene filter and root barrier fabric and, on the other side, a non-woven, 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.

Use

Hydroduct Green Roof Composites are designed for horizontal green roof applications where soil depths typically range from 3-6 inches. 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 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. Carefully read detailed precaution statements on product labels and the Material Safety Data Sheet before use. Please contact your local GCP representative for further information.

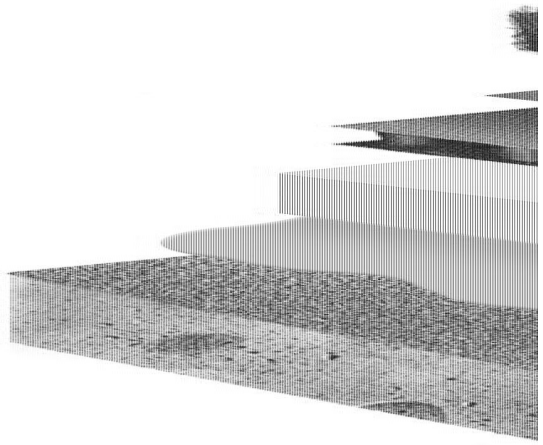
Installation

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.



Drawings are for illustration purposes only. Please contact your local GCP representative for specific application details.

	HYDRODUCT 500RS	HYDRODUCT 550RS
Roll Size	1.2m x 15.2m (18.6 m^2)	0.91m x 15.2m (13.9m^2)
Packaging	6 rolls / pallet	2 rolls / pallet
Weight	18kg / roll	20kg / roll

COMPLEMENTARY MATERIAL	
Preprufe Detail Tape	50mm x 15m roll / 16 rolls per carton

Health and Safety

Read the product label and Material Safety Data Sheet before use. Users must comply with all risk and safety phrases.

Physical Properties

PROPERTY	TYPICAL VALUE	TEST METHOD	
Geotextile & Root Barrier	Hydroduct 500RS	Hydroduct 550RS	
Material	Polypropylene	Polypropylene	
Root Barrier Coating	Copper hydroxide	Copper hydroxide	
Weight	195g / m^2	195g / m^2	ASTM D3776
Flow Rate	937Lpm / m^2	937Lpm / m^2	ASTM D4491
Drainage Core			
Polymer	Polypropylene	Polypropylene	
Thickness	11mm	25mm	
Compressive Strength	718kN / m^2	933kN / m^2	ASTM D1621 (mod)
Flow Rate (Gradient 1.0)	200Lpm / m^2	933Lpm / m^2	ASTM D4716
Water Storage Capacity	2.4L / m^2	4.5L / m^2	
Geotextile Separation Layer			
Material	Polypropylene	Polypropylene	
Type	Needle-punched, nonwoven	Needle-punched, nonwoven	
Weight	136g / m^2	136g / m^2	ASTM D3776

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