HYDRODUCT® GREEN ROOF COMPOSITE
High impact, creep-resistant geocomposite and root barrier for use with Grace waterproofing membranes on green roof applications

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 Grace Hydroduct Green Roof Composites are part of a full green roof waterproofing system to include Grace Procor® Deck System 3R or Grace 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. Material Safety Data Sheets (MSDS) are available at graceconstruction.com and users should acquaint themselves with this information. Carefully read detailed precaution statements on product labels and the MSDS before use.
Supply

<table>
<thead>
<tr>
<th>Hydroduct Green Roof Composite</th>
<th>Hydroduct 500RS</th>
<th>Hydroduct 550RS</th>
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</thead>
<tbody>
<tr>
<td>Roll size</td>
<td>4 ft x 50 ft (1.2 m x 15.2 m) 200 ft² (18.6 m²)</td>
<td>3 ft x 50 ft (0.91 m x 15.2 m) 150 ft² (13.9 m²)</td>
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<tr>
<td>Packaging</td>
<td>6 rolls/pallet</td>
<td>2 rolls/pallet</td>
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<tr>
<td>Weight</td>
<td>44 lbs (18.1 kg)/roll</td>
<td>40 lbs (20 kg)/roll</td>
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Complementary Material

| Preprufe® Detail Tape           | 2 in. x 50 ft (50 mm x 15 m) roll/16 rolls per carton |

Physical Properties

- **Geotextile & Root Barrier**
  - Material: Polypropylene, Copper hydroxide
  - Weight: 5.6 oz/ft² (195 g/m²), 5.6 oz/ft² (195 g/m²)
  - Flow rate: 23 gpm/ft² (937 Lpm/m²), 23 gpm/ft² (937 Lpm/m²)

- **Drainage Core**
  - Polymer: Polystyrene
  - Thickness: .44 in. (11 mm), 1 in. (25.4 mm)
  - Compressive strength: 15,000 lbs/ft² (718 kPa), 9,500 lbs/ft² (933 kPa)
  - Flow rate (gradient 1.0): 16 gpm/ft² (200 Lpm/m²), 80 gpm/ft² (933 Lpm/m²)
  - Water storage capacity: 0.06 gal/ft² (2.4 L/m²), 0.11 gal/ft² (4.5 L/m²)

- **Geotextile Separation Layer**
  - Material: Polypropylene
  - Type: Needle-punched, nonwoven
  - Weight: 4 oz/ft² (136 g/m²), 4 oz/ft² (136 g/m²)

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.

www.graceconstruction.com

For technical assistance call toll free at 866-333-3SBM (3726)