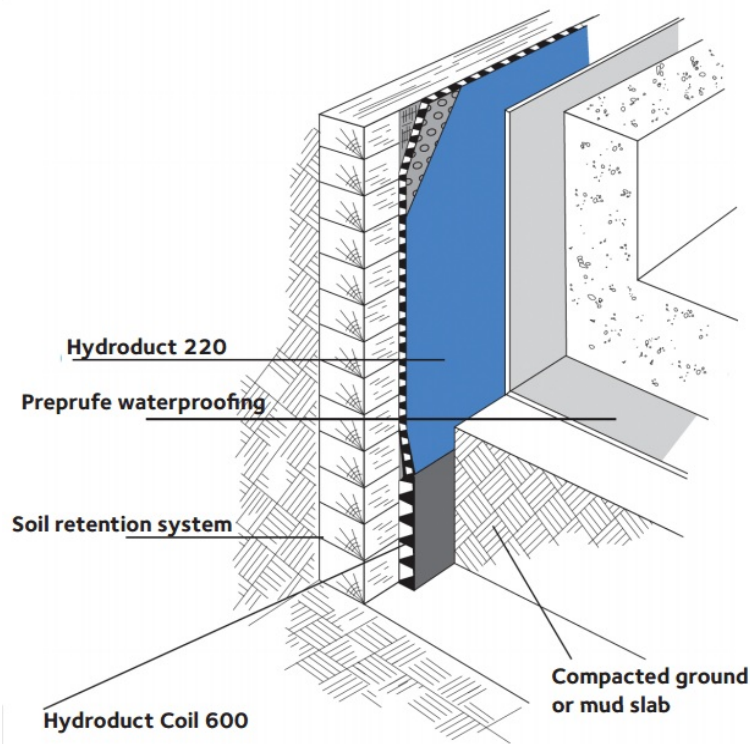


# HYDRODUCT® 220 Data Sheet

Drainage composite for use as a combined drainage and protection layer with GCP waterproofing membranes

## Product Description

HYDRODUCT® 220 is a strong, preformed 0.44 in. (11 mm) thick geocomposite drainage sheet system, comprising a hollow studded polypropylene core, covered on one side with a nonwoven, needle punched polypropylene filter fabric and on the other side with a smooth polymeric film.



## Uses

HYDRODUCT® 220 is designed primarily for use with waterproofing materials in vertical installations.

HYDRODUCT® 220 has been specially developed to provide a simple and highly practical collector and deflector of unwanted ground water on foundation walls, retaining walls, tunnels and planters. It can be used with PREPRUFE®, PROCOR®, or BITUTHENE® waterproof membranes. When installed it protects the membrane from damage and minimizes the build-up of percolated surface water against the structure. The construction of the studded sheet also creates an air void to isolate the structure from the effects of the surrounding ground.

HYDRODUCT® 220 has been designed to withstand ground pressures and the compaction forces of wet concrete to maintain a high water flow capacity. The drainage sheet must be connected into the site drainage system to minimize hydrostatic build-up and collect infiltrated water using HYDRODUCT® Coil 600 or traditional perforated pipes wrapped and linked with the geotextile filter fabric to prevent clogging.

## Product Advantages

- Enhances waterproofing—eliminates hydrostatic pressure build-up
- Efficient water collector/deflector—can be used as a sandwich drainage layer between lagging and the reinforced concrete structure
- Smooth polymeric sheet—compatible with PREPRUFE<sup>®</sup>, PROCOR<sup>®</sup>, or BITUTHENE<sup>®</sup> membranes
- Convenient drainage and protection layer—serves as robust membrane protection and drainage
- Geotextile fabric filter—allows ground water to pass into the drain core while restricting the movement of soil particles
- High flow capacity
- Rot proof—unaffected by permanent immersion in water, bacteria, dilute acids and alkalis
- Economical—eliminates imported aggregate drainage layers
- Studded core—allows water to flow to designated drainage collection points

## Application Procedures

### Safety, Storage and Handling Information

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

### Installation

Position HYDRODUCT<sup>®</sup> so that the geotextile fabric filter is facing toward the groundwater, soil or overburden. The solid polymeric film provides extra protection for waterproofing such as PROCOR<sup>®</sup> or BITUTHENE<sup>®</sup> and should not be removed. In vertical applications, HYDRODUCT<sup>®</sup> 220 Drainage Composites can be applied to the substrate vertically but should extend from the perimeter discharge pipe to a point approximately 6 in. (150 mm) below the anticipated grade line.

When adhering HYDRODUCT<sup>®</sup> 220 directly to BITUTHENE<sup>®</sup> waterproofing membranes, PREPRUFE<sup>®</sup> Detail Tape should be used. When using PREPRUFE<sup>®</sup> Detail Tape, press firmly to ensure good adhesion.

Substrate and job site conditions will determine the attachment pattern. Additional consideration should be given in high wind exposures. Abut adjacent rolls with excess fabric overlapping in shingle fashion.

For inside and outside corners, abut adjoining drainage composite at the corner. Cover open core with extra geotextile filter fabric. The exposed core along the top terminations should be covered with a strip of geotextile to prevent intrusion of soil into core. At the bottom termination extend the HYDRODUCT<sup>®</sup> 220 Drainage Composite out from the structure so that it passes behind and under the perimeter discharge pipe. Additional geotextile should be wrapped over the pipe to prevent soil intrusion.

To secure HYDRODUCT<sup>®</sup> 220 around protrusions, apply PREPRUFE<sup>®</sup> Detail Tape around the protrusion in a picture frame configuration. Cut HYDRODUCT<sup>®</sup> 220 to fit snugly around the protrusion. Press the cut edge firmly into PREPRUFE<sup>®</sup> Detail Tape.

HYDRODUCT® 220 should be covered promptly. Do not leave HYDRODUCT® 220 exposed to sunlight for more than two weeks.

Motor vehicles, construction equipment or other trades should not be allowed directly on the HYDRODUCT® 220.

## Supply

### HYDRODUCT®

|                                |  |
|--------------------------------|--|
| Roll size                      | 4 ft x 50 ft (1.2 m x 15.2 m) 200 ft <sup>2</sup> (18.6 m <sup>2</sup> ) |
| Packaging                      | 6 rolls/pallet   |
| Weight                         | 39 lbs (17.7 kg)/roll  |
| <b>Complimentary Materials</b> |  |
| PREPRUFE® Detail Tape          | 2 in. x 50 ft (50 mm x 15 m) rolls                                       |

## Physical Properties

| PROPERTY                  | TYPICAL VALUE  | TEST METHOD |
|---------------------------|--|-------------|
| <b>Drainage Core</b>      |  |             |
| Thickness                 | 0.40 in. (10 mm) nominal                                   | ASTM D1777  |
| Compressive strength      | 15,000 lbs/ft <sup>2</sup> (718 kPa)                       | ASTM D6364  |
| Flow rate (gradient 1.0.) | 18 gal/min./ft (224 L/min./m)                              | ASTM D4716  |
| <b>Geotextile</b>         |  |             |
|                           | Typical Value  | Test Method |
| Tensile strength          | 100 lbs (445 N)  | ASTM D4632  |
| Apparent opening size     | 70 U.S. sieve (0.21 mm)                                    | ASTM D4751  |
| Flow rate                 | 165 gal/min./ft <sup>2</sup> (6724 L/min./m <sup>2</sup> ) | ASTM D4491  |
| CBR puncture              | 275 lbs (1.23 kN)  | ASTM D6241  |

## gcpat.com | North America Customer Service: +1 (877) 423 6491

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

HYDRODUCT, PREPRUFE, PROCOR, and BITUTHENE are trademarks, which may be registered in the United States and/or other countries, of GCP Applied Technologies, Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2021 GCP Applied Technologies, Inc. All rights reserved.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Suite 400, Alpharetta, GA 30009, USA

GCP Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6

This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on [www.gcpat.com](http://www.gcpat.com). Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2023-04-25

[gcpat.com/solutions/products/hydroduct-drainage-composite/hydroduct-220](http://gcpat.com/solutions/products/hydroduct-drainage-composite/hydroduct-220)