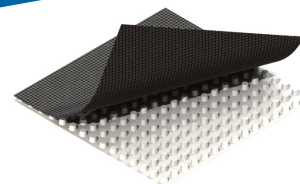


# SITEDRAIN™ SHEET 450 SERIES

## PREFABRICATED SHEET DRAINS

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### PRODUCT OVERVIEW

SITEDRAIN Sheet 450 Series prefabricated drains are constructed using a high strength, high flow capacity, formed polystyrene drainage core with a nonwoven, spun-bonded or woven filter fabric bonded to one side. The filter fabric is securely bonded to each dimple and prevents soil intrusion into the flow channel while allowing water to freely enter the drain core from one side.

SITEDRAIN Sheet 450 products offer a compressive strength and flow capacity that is significantly higher than geonet products, making it the ideal choice for high stress applications. SITEDRAIN 450 Series is available with filter fabrics meeting AASHTO M 288-06 specifications.

| Typical Property Values      | ASTM Test Method | Unit of Measure     | 450    | 454     | 456     | 458     | 454-T   | 456-W       |
|------------------------------|------------------|---------------------|--------|---------|---------|---------|---------|-------------|
| <b>FABRIC</b>                |                  |                     |        |         |         |         |         |             |
| Material <sup>1</sup>        |                  |                     | PP     | PP      | PP      | PP      | PP      | PP          |
| Water Flow Rate              | D-4491           | gpm/ft <sup>2</sup> | 190    | 150     | 110     | 90      | 80      | 160         |
|                              |                  | Lpm/m <sup>2</sup>  | 7,743  | 6,113   | 4,483   | 3,668   | 3,260   | 6,520       |
| Grab Tensile Strength        | D-4632           | lbs                 | 90     | 130     | 160     | 205     | 145     | 410 x 220   |
|                              |                  | N                   | 400    | 578     | 712     | 912     | 645     | 1,824 x 979 |
| Puncture Resistance          | D-4833           | lbs                 | 35     | 75      | 90      | 120     | 50      | 105         |
|                              |                  | N                   | 156    | 334     | 400     | 534     | 222     | 467         |
| Apparent Opening Size        | D-4751           | sieve               | 50     | 70      | 70      | 80      | 80      | 45          |
|                              |                  | mm                  | 0.297  | 0.210   | 0.210   | 0.177   | 0.177   | 0.354       |
| Permittivity                 | D-4491           | sec <sup>-1</sup>   | 2.8    | 2.1     | 1.8     | 1.3     | 1.0     | 2.3         |
| Grab Elongation              | D-4632           | %                   | 65     | 70      | 70      | 70      | 60      | 15          |
| UV Resistance                | D-4355           | % / 500 Hrs         | 70     | 70      | 70      | 70      | 70      | 90          |
| AASHTO M 288-06 <sup>2</sup> | Survivability    | -                   | -      | Class 3 | Class 2 | Class 1 | Class 3 | Class 2 & 3 |
| <b>CORE</b>                  |                  |                     |        |         |         |         |         |             |
| Material <sup>1</sup>        |                  |                     | HIPS   | HIPS    | HIPS    | HIPS    | HIPS    | HIPS        |
| Thickness                    | D-1777           | in                  | .25    | .25     | .25     | .25     | .25     | .25         |
|                              |                  | mm                  | 6.35   | 6.35    | 6.35    | 6.35    | 6.35    | 6.35        |
| Compressive Strength         | D-1621           | psf                 | 45,000 | 45,000  | 45,000  | 45,000  | 45,000  | 45,000      |
|                              |                  | kPA                 | 2,155  | 2,155   | 2,155   | 2,155   | 2,155   | 2,155       |
| Flow Rate <sup>3</sup>       | D-4716           | gpm/ft              | 13     | 13      | 13      | 13      | 13      | 13          |
|                              |                  | Lpm/m               | 161    | 161     | 161     | 161     | 161     | 161         |

1 - PP = Polypropylene; HIPS = High Impact Polystyrene

2 - AASHTO Designation: M 288-06 Standard Specification for Highway Applications; American Association of State Highway and Transportation Officials, 2006. Geotextile survivability classification from installation stresses in subsurface drainage applications.

3 - In-plane flow rate measured at 3,600 psf (172 kPa) compressive load and a hydraulic gradient of 1.0.



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