



## TRANSNET® HDPE GEOCOMPOSITE TN 300-1-200 & TN 300-1-270

Transnet® geocomposite consists of Transnet® geonet made from HDPE resin with nonwoven polypropylene geotextile fabric heat bonded on one side of the geonet.

| Property                      | Test Method                | Unit                 | Value                  |                        | Qualifier           |
|-------------------------------|----------------------------|----------------------|------------------------|------------------------|---------------------|
| Geonet                        |                            |                      |                        |                        |                     |
| Thickness                     | ASTM D 5199                | mm                   | 6.98                   |                        | MAV <sup>(3)</sup>  |
| Carbon Black                  | ASTM D 4218                | %                    | 2.0                    |                        | MAV                 |
| Tensile Strength              | ASTM D 7179                | kN/m                 | 11.35                  |                        | MAV                 |
| Compressive Strength          | ASTM D 6364                | kPa                  | 1530                   |                        | MAV                 |
| Melt Flow                     | ASTM D 1238 <sup>(2)</sup> | g/10 min             | 1.0                    |                        | Maximum             |
| Density                       | ASTM D 1505                | g/cm <sup>3</sup>    | 0.94                   |                        | MAV                 |
| Transmissivity <sup>(1)</sup> | ASTM D 4716                | m <sup>2</sup> /sec  | 6.0 x 10 <sup>-3</sup> |                        | MAV                 |
| Composite                     |                            |                      | 200 g/m <sup>2</sup>   | 270 g/m <sup>2</sup>   |                     |
| Ply Adhesion                  | ASTM D 7005                | g/cm                 | 178                    | 178                    | MAV                 |
| Transmissivity <sup>(1)</sup> | ASTM D 4716                | m <sup>2</sup> /sec  | 2.0 x 10 <sup>-3</sup> | 2.0 x 10 <sup>-3</sup> | MAV                 |
| Geotextile                    |                            |                      |                        |                        |                     |
| Fabric Weight                 | ASTM D 5261                | g/m <sup>2</sup>     | 200                    | 270                    | MARV <sup>(4)</sup> |
| Grab Tensile                  | ASTM D 4632                | N                    | 711                    | 1001                   | MARV                |
| Grab Elongation               | ASTM D 4632                | %                    | 50                     | 50                     | MARV                |
| Trapezoid Tear                | ASTM D 4533                | N                    | 289                    | 400                    | MARV                |
| CBR Puncture                  | ASTM D 6241                | N                    | 2002                   | 2670                   | MARV                |
| Water Flow <sup>(5)</sup>     | ASTM D 4491                | l/min/m <sup>2</sup> | 5093                   | 4075                   | MARV                |
| Permittivity <sup>(5)</sup>   | ASTM D 4491                | sec <sup>-1</sup>    | 1.63                   | 1.26                   | MARV                |
| Permeability <sup>(5)</sup>   | ASTM D 4491                | cm/sec               | 0.30                   | 0.30                   | MARV                |
| AOS                           | ASTM D 4751                | mm                   | 0.212                  | 0.180                  | MaxARV              |
| UV Resistance                 | ASTM D4355                 | Strength Retained %  | 70 @500 hours          | 70 @500 hours          | MARV                |

| <b>Production Details</b> |              |   | Net/Geotextile SS <sup>(6)</sup> | Net/Geotextile SS <sup>(6)</sup> |
|---------------------------|--------------|---|----------------------------------|----------------------------------|
| Roll Dimensions           | Manufacturer | m | 3.81 x 60.96                     | 3.81 x 60.96                     |
|                           |              |   | Net/Geotextile DS <sup>(6)</sup> | Net/Geotextile DS <sup>(6)</sup> |
| Roll Dimensions           | Manufacturer | m | 3.81 x 57.91                     | 3.81 x 54.86                     |

### Notes:

- (1) Transmissivity measured using water at 21 ± 2 °C with a gradient of 0.1 and a confining pressure of 480 kPa between steel plates after 15 minutes. Values may vary with individual labs.
- (2) Condition 190/2.16
- (3) Minimum average value.
- (4) MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.
- (5) At the time of manufacturing. Handling may change these properties.
- (6) SS = Net with one side of geotextile DS = Net both sides with geotextile.

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