

The Pioneer Of Geosynthetics

GSE FabriNet HF Geocomposite

GSE FabriNet HF geocomposite consists of a 250 mil thick GSE HyperNet HF geonet heat-laminated on one or both sides with a GSE nonwoven needlepunched geotextile. The geotextile is available in mass per unit area range of 6 oz/yd² (200 g/m²) to 16 oz/yd² (540 g/m²). The geocomposite is designed and formulated to perform drainage function under a range of anticipated site loads, gradients and boundary conditions.

Product Specifications

| TESTED PROPERTY | TEST METHOD | FREQUENCY | MINIMUM AVERAGE VALUE ⁽¹⁾ | | |
|---|----------------------------------|---------------------------|--------------------------------------|--------------------------------|-------------------------------|
| Geocomposite | | | 6 oz/yd² | 8 oz/yd ² | 10 oz/yd ² |
| Transmissivity ⁽²⁾ , gal/min/ft (m²/sec) | ASTM D 4716 | 1/540,000 ft ² | | | |
| Double-Sided Composite | | | 2.41 (5 x 10 ⁻⁴) | 2.41 (5 x 10 ⁻⁴) | 1.45 (3 x 10 ⁻⁴) |
| Single-Sided Composite | | | 7.24 (1.5 x 10 ⁻³) | 7.24 (1.5 x 10 ⁻³) | 4.83 (1 x 10 ⁻³) |
| Ply Adhesion, lb/in (g/cm) | ASTM D 7005 | 1/50,000 ft ² | 1.0 (178) | 1.0 (178) | 1.0 (178) |
| Geonet Core ⁽³⁾ - GSE HyperNet HF | | | | | |
| Transmissivity ⁽²⁾ , gal/min/ft (m²/sec) | ASTM D 4716 | | 14.49 (3 x 10 ⁻³) | 14.49 (3 x 10 ⁻³) | 14.49 (3 x 10 ⁻³) |
| Density, g/cm³ | ASTM D 1505 | 1/50,000 ft ² | 0.94 | 0.94 | 0.94 |
| Tensile Strength (MD), lb/in (N/mm) | ASTM D 5035/7179 | 1/50,000 ft ² | 55 (9.6) | 55 (9.6) | 55 (9.6) |
| Carbon Black Content, % | ASTM D 1603*/4218 | 1/50,000 ft ² | 2.0 | 2.0 | 2.0 |
| Geotextile ^(3,4) | • | • | • | • | |
| Mass per Unit Area, oz/yd²(g/m²) | ASTM D 5261 | 1/90,000 ft ² | 6 (200) | 8 (270) | 10 (335) |
| Grab Tensile, lb (N) | ASTM D 4632 | 1/90,000 ft ² | 160 (710) | 220 (975) | 260 (1,155) |
| Puncture Strength, lb (N) | ASTM D 4833 | 1/90,000 ft ² | 90 (395) | 120 (525) | 165 (725) |
| AOS, US sieve (mm) | ASTM D 4751 | 1/540,000 ft ² | 70 (0.212) | 80 (0.180) | 100 (0.150) |
| Permittivity, (sec ⁻²) | ASTM D 4491 | 1/540,000 ft ² | 1.5 | 1.3 | 1.0 |
| Flow Rate, gpm/ft² (lpm/m²) | ASTM D 4491 | 1/540,000 ft ² | 110 (4,480) | 95 (3,865) | 75 (3,050) |
| UV Resistance, % retained | ASTM D 4355 (after 500 hours) | once per formulation | 70 | 70 | 70 |
| NOMINAL ROLL DIMENSIONS | | | | | |
| Geonet Core Thickness, mil (mm) | ASTM D 5199 | 1/50,000 ft ² | 250 (6.3) | 250 (6.3) | 250 (6.3) |
| Roll Width ⁽⁵⁾ , ft (m) | | | 15 (4.5) | 15 (4.5) | 15 (4.5) |
| Roll Length ⁽⁵⁾ , ft (m) | Double-Sided Composite | | 230 (70.1) | 210 (64.0) | 210 (64.0) |
| | Single-Sided Composite | | 260 (79.2) | 260 (79.2) | 250 (76.2) |
| Roll Area, ft² (m²) | Double-Sided Composite | | 3,450 (321) | 3,150 (293) | 3,150 (293) |
| | Single-Sided Composite | | 3,900 (362) | 3,900 (362) | 3,750 (348) |

NOTES:

- ⁽¹⁾AOSin mm is a maximum value.
- ⁽²⁾Gradient of 0.1, normal load of 10,000 psf, water at 70°F between steel plates for 15 minutes. Contact GSE for performance transmissivity value for use in design.
- ⁽³⁾Component properties prior to lamination.
- ⁽⁴⁾Refer to geotextile product data sheet for additional specifications.
- \bullet $^{(5)}Roll$ widths and lengths have a tolerance of $\pm 1\%.$
- *Modified.