

GSE PermaNet 8.4 mm Geocomposite

METRIC

GSE PermaNet 8.4 mm geocomposite is manufactured with a GSE PermaNet geonet core heat-bonded on one or both sides with a nonwoven needlepunched geotextile. The round strand, creep resistant structure of this product ensures continuous flow performance and durability under rigorous environmental conditions and is ideal for extremely demanding applications.



AT THE CORE:
The product's structure provides superior performance under demanding conditions.

Product Specifications

| Tested Property | Test Method | Frequency | Minimum Average Roll Value ⁽¹⁾ | | |
|---|--|-------------------------|--|--|--|
| Geocomposite | | | 200 g/m² | 270 g/m² | 335 g/m² |
| Transmissivity ⁽²⁾ , m ² /sec Double-Sided Composite Single-Sided Composite | ASTM D 4716 | 1/50,000 m ² | 2 x 10 ⁻³ 2.6 x 10 ⁻³ | 2 x 10 ⁻³ 2.6 x 10 ⁻³ | 2 x 10 ⁻³ 2.6 x 10 ⁻³ |
| Ply Adhesion, g/cm | ASTM D 7005 | 1/4,600 m ² | 178 | 178 | 178 |
| Geonet Core⁽³⁾ -GSE PermaNet^(1,3) | | | | | |
| Geonet Core Thickness, mm | ASTM D 5199 | 1/4,600 m ² | 8.4 | 8.4 | 8.4 |
| Transmissivity ⁽²⁾ , m ² /sec | ASTM D 4716 | 1/50,000 m ² | 6 x 10 ⁻³ | 6 x 10 ⁻³ | 6 x 10 ⁻³ |
| Compressive Strength, kPa | ASTM D 6364 | 1/50,000 m ² | 2872 | 2872 | 2872 |
| Creep Reduction Factor | ASTM D 7361 | per formulation | 1.3 @ 1,200 kPa | 1.3 @ 1,200 kPa | 1.3 @ 1,200 kPa |
| Density, g/cm ³ | ASTM D 1505 | 1/4,600 m ² | 0.94 | 0.94 | 0.94 |
| Tensile Strength (MD), N/mm | ASTM D 7179 | 1/4,600 m ² | 17.5 | 17.5 | 17.5 |
| Carbon Black Content, % | ASTM D 4218 | 1/4,600 m ² | 2.0 | 2.0 | 2.0 |
| Geotextile^(1,3) | | | | | |
| Mass per Unit Area, g/m ² | ASTM D 5261 | 1/8,300 m ² | 200 | 270 | 335 |
| Grab Tensile Strength, N | ASTM D 4632 | 1/8,300 m ² | 710 | 975 | 1,155 |
| Grab Elongation | ASTM D 4632 | 1/8,300 m ² | 50% | 50% | 50% |
| CBR Puncture Strength, N | ASTM D 6241 | 1/50,000 m ² | 1,936 | 2,557 | 3,225 |
| Trapezoidal Tear Strength, N | ASTM D 4533 | 1/8,300 m ² | 290 | 395 | 445 |
| AOS, US Sieve, mm | ASTM D 4751 | 1/50,000 m ² | 0.212 | 0.180 | 0.150 |
| Permittivity, sec ⁻¹ | ASTM D 4491 | 1/50,000 m ² | 1.5 | 1.3 | 1.0 |
| Water Flow Rate, lpm/m ² | ASTM D 4491 | 1/50,000 m ² | 4,480 | 3,865 | 3,050 |
| UV Resistance, % Retained | ASTM D 4355 (after 500 hours) | per formulation | 70 | 70 | 70 |
| NOMINAL ROLL DIMENSIONS⁽⁴⁾ | | | | | |
| Roll Width, m | | | 4.5 | 4.5 | 4.5 |
| Roll Length, m | Double-Sided Composite Single-Sided Composite | | 45.7 45.7 | 42.7 45.7 | 39.6 42.7 |
| Roll Area, m ² | Double-Sided Composite Single-Sided Composite | | 209 209 | 195 209 | 175 195 |

NOTES:

- ⁽¹⁾ All geotextile properties are minimum average roll values except AOS which is maximum average roll value and UV resistance is typical value. Geonet core thickness is nominal value.
- ⁽²⁾ Gradient of 0.1, normal load of 1,200 kPa, water at 21°C between steel plates for 15 minutes. Contact GSE for performance transmissivity data for use in design.
- ⁽³⁾ Component properties prior to lamination.
- ⁽⁴⁾ Roll widths and lengths have a tolerance of ±1%.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.



[DURABILITY RUNS DEEP] For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.