

GSE MineDrain Geocomposite

GSE MineDrain geocomposite consists of the GSE PermaNet 330 mil geonet heat-bonded on one or both sides with GSE NW6 nonwoven needle-punched geotextile. The creep resistant structure of the round-strand geonet core ensures continuous flow performance over a broad range of conditions and long durations. The geocomposite works as both a great geomembrane protection layer and an efficient drainage medium. As a better alternative to the natural drainage gravels, GSE MineDrain is ideal for extremely high compressive stress applications in mining industry such as conventional and dynamic heap leach pads, tailings ponds and dams.



AT THE CORE:
A high flow geocomposite that achieves high in-situ transmissivity from optimally oriented flow channels that maintain porosity.

Product Specifications

Tested Property	Test Method	Frequency	Minimum Average Roll Value ⁽¹⁾
Geocomposite			
Transmissivity ⁽²⁾ , gal/min/ft (m ² /sec) Double-sided Composite Single-sided Composite	ASTM D 4716	1/540,000 ft ²	9.6 (2.0x10 ⁻³) 12.5 (2.6 x10 ⁻³)
Ply Adhesion, lb/in	ASTM D 7005	1/50,000 ft ²	0.5
Column Leach Test		per formulation	see note ⁽⁵⁾
Geonet Core⁽³⁾ - GSE PermaNet 330 mil			
Geonet Core Thickness, mil	ASTM D 5199	1/50,000 ft ²	330
Transmissivity ⁽²⁾ , gal/min/ft (m ² /sec)	ASTM D 4716	1/540,000 ft ²	28.8 (6.0 x 10 ⁻³)
Creep Reduction Factor	GRI GC8	per formulation	1.3@25,000 psf
Density, g/cm ³	ASTM D 1505	1/50,000 ft ²	0.94
Tensile Strength (MD), lb/in	ASTM D 7179	1/50,000 ft ²	100
Carbon Black Content, %	ASTM D 4218	1/50,000 ft ²	2.0
Compressive Strength lb/ft ²	ASTM D 6364	1/540,000 ft ²	60,000
Geotextile⁽³⁾			
Mass per Unit Area, oz/yd ²	ASTM D 5261	1/90,000 ft ²	6
Grab Tensile, lb	ASTM D 4632	1/90,000 ft ²	160
CBR Puncture Strength, lb	ASTM D 6241	1/540,000 ft ²	435
AOS, US Sieve (mm)	ASTM D 4751	1/540,000 ft ²	70 (0.212)
Permittivity, (sec ⁻¹)	ASTM D 4491	1/540,000 ft ²	1.5
Flow Rate, gpm/ft ²	ASTM D 4491	1/540,000 ft ²	110
UV Resistance	ASTM D 4355 (after 500 hours)	per formulation	70
TYPICAL ROLL DIMENSIONS⁽⁴⁾			
Roll Width, ft			15
Roll Length, ft Double-sided Single-sided			130 150
Roll Area, ft ² Double-sided Single-sided			1,950 2,250

[Product specifications continued on back]

Product Specifications [continued]

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 25,000 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⁾Roll widths and lengths have a tolerance of ±1%.
- ⁽⁵⁾Filter and chemical compatibility by column tests with acid solution through copper-bearing ores and with cyanide solution through gold-bearing ores at irrigation rates 7 to 12 l/h/m² for a minimum duration of sixty days.

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.