

GSE MineDrain Geocomposite

METRIC

GSE MineDrain geocomposite consists of the GSE PermaNet 8.4 mm 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⁾ , (m ² /sec) Double-sided Composite Single-sided Composite	ASTM D 4716	1/50,000 m ²	2.0x10 ⁻³ 2.6 x10 ⁻³
Ply Adhesion	ASTM D 7005	1/4,600 m ²	89
Column Leach Test		per formulation	see note ⁽⁵⁾
Geonet Core⁽³⁾ - GSE PermaNet 8.4 mm			
Geonet Core Thickness, mm	ASTM D 5199		8.4
Transmissivity ⁽²⁾ , m ² /sec	ASTM D 4716	1/50,000 m ²	6.0 x 10 ⁻³
Creep Reduction Factor	GRI GC8	per formulation	1.3@1,200 kPa
Density, g/cm ³	ASTM D 1505	1/4,600 m ²	0.94
Tensile Strength (MD), N/mm	ASTM D 7179	1/4,600 m ²	17.5
Carbon Black Content, %	ASTM D 4218	1/4,600 m ²	2.0
Compressive Strength kPa	ASTM D 6364	1/50,000 m ²	2,880
Geotextile⁽³⁾			
Mass per Unit Area, g/m ²	ASTM D 5261	1/8,300 m ²	200
Grab Tensile, N	ASTM D 4632	1/8,300 m ²	710
CBR Puncture Strength, N	ASTM D 6241	1/50,000 m ²	1936
AOS, mm	ASTM D 4751	1/50,000 m ²	0.212
Permittivity, sec ⁻¹	ASTM D 4491	1/50,000 m ²	1.5
Flow Rate, lpm/m ²	ASTM D 4491	1/50,000 m ²	4,480
UV Resistance	ASTM D 4355 (after 500 hours)	per formulation	70
TYPICAL ROLL DIMENSIONS⁽⁴⁾			
Roll Width, m			4.57
Roll Length, m Double-sided Single-sided			40 45.7
Roll Area, m ² Double-sided Single-sided			183 209

[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 1200 kPa, water at 21°C 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.