

GSE BioDrain HP Geocomposite (Double-Sided)

GSE BioDrain HP consists of a GSE HyperNet geonet heat-laminated with a nonwoven geotextile on one side and with a high permittivity (HP) woven geotextile on the other side. The geotextiles serve as filters and separators, while the geonet core provides liquid flow medium. The type of geotextile and thickness of the core can be varied depending on requirements of a project.

Product Specifications

Tested Property	Test Method	Frequency	Minimum Average Roll Value ⁽¹⁾
Geocomposite			
Transmissivity ⁽²⁾ , gal/min/ft (m ² /sec)	ASTM D 4716	1/540,000 ft ²	0.48 (1 x 10 ⁻⁴)
Geonet Core^(1,3)-HyperNet 200			
Geonet Core Thickness, mil	ASTM D 5199	1/50,000 ft ²	200
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	45
Carbon Black Content, %	ASTM D 4218	1/50,000 ft ²	2.0
Geotextile^(1,3) - 6 oz/yd²			
Mass per Unit Area, oz/yd ²	ASTM D 5261	1/90,000 ft ²	6
Grab Tensile Strength, lb	ASTM D 4632	1/90,000 ft ²	160
Grab Elongation	ASTM D 4632	1/90,000 ft ²	50%
CBR Puncture Strength, lb	ASTM D 6241	1/540,000 ft ²	435
Trapezoidal Tear Strength, lb	ASTM D 4533	1/90,000 ft ²	65
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
Water Flow Rate, gpm/ft ²	ASTM D 4491	1/540,000 ft ²	110
UV Resistance, % retained	ASTM D 4355 (after 500 hours)	per formulation	70
Geotextile^(1,3) - HP			
Grab Tensile Strength, lb	ASTM D 4632	1/540,000 ft ²	150
Puncture Strength, lb	ASTM D 4833	1/180,000 ft ²	100
AOS, US sieve (mm)	ASTM D 4751	1/180,000 ft ²	30 US Sieve (0.595)
Permittivity, sec ⁻¹	ASTM D 4491	1/180,000 ft ²	0.5
Water Flow Rate, gpm/ft ²	ASTM D 4491	1/180,000 ft ²	36
UV Resistance, % retained	ASTM D 4355 (after 500 hours)	per formulation	85
NOMINAL ROLL DIMENSIONS⁽⁴⁾			
Roll Width, ft			14.5
Roll Length, ft			230
Roll Area, ft ²			3,335

NOTES:

- ⁽¹⁾All geotextile 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⁾This is an index transmissivity value measured at stress = 10,000 psf, water at 70 F gradient = 0.1; 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%.

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.



AT THE CORE:
BioDrain is used as a leachate distribution layer to disperse leachate uniformly over the waste system.

