



The Pioneer Of Geosynthetics

S I N C E 1 9 7 2

GSE BioDrain LP Geocomposite (Double-Sided)

GSE BioDrain LP consists of a GSE HyperNet geonet heat-laminated with a nonwoven geotextile on one side and with a low permittivity (LP) woven geotextile on the other side. The geotextile serves as a filter and separator, while the 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 VALUE ⁽³⁾	
Geocomposite				
Transmissivity ⁽¹⁾ , gal/min/ft (m ² /sec)	ASTM D 4716	1/540,000 ft ²	0.48 (1.0x10 ⁻⁴)	
Ply Adhesion ⁽⁴⁾ , lb/in (g/cm)	ASTM D 7005	1/50,000 ft ²	0.5 (89)	
Geonet Core (Prior to lamination)				
Transmissivity ⁽¹⁾ , gal/min/ft (m ² /sec)	ASTM D 4716	1/540,000 ft ²	9.66 (2.0x10 ⁻³)	
Density, g/cm ³	ASTM D 1505	1/50,000 ft ²	> 0.94	
Tensile Strength (MD), lb/in (N/mm)	ASTM D 5035/7179	1/50,000 ft ²	45 (7.9)	
Carbon Black Content, %	ASTM D 1603*/4218	1/50,000 ft ²	> 2.0	
Geotextile (Prior to lamination)			Nonwoven	LP Woven
Mass per Unit Area	ASTM D 5261	1/90,000 ft ²	6	N/A
Grab Tensile, lb	ASTM D 4632	1/90,000 ft ²	160	230 x 150
Puncture Strength, lb	ASTM D 4833	1/90,000 ft ²	90	100
AOS, US sieve (mm)	ASTM D 4751	1/540,000 ft ²	70 (0.212)	70 (0.212)
Permittivity, (sec ⁻¹)	ASTM D 4491	1/540,000 ft ²	1.5	0.1
Flow Rate, gpm/ft ²	ASTM D 4491	1/540,000 ft ²	110	8
UV Resistance, % retained	ASTM D 4355 (after 500 hours)	once per formulation	70	70
NOMINAL ROLL DIMENSIONS				
Geonet Core Thickness, mil (mm)	ASTM D 5199	1/50,000 ft ²	200 (5)	
Roll Width ⁽²⁾ , ft			14.5 (4.4)	
Roll Length ⁽²⁾ , ft			230 (70)	
Roll Area, ft ² (m ²)			3,335 (310)	

NOTES:

- ⁽¹⁾This is an index transmissivity value measured at stress = 10,000 psf; gradient = 0.1; between steel plates for 15 minutes. Contact GSE for performance transmissivity value for use in design.
- ⁽²⁾Roll widths and lengths have a tolerance of ±1%.
- ⁽³⁾All properties are minimum average values except AOS (mm) which is a maximum value and UV resistance which is a typical value.
- ⁽⁴⁾Tested and reported on nonwoven/geonet side only.
- *Modified.