The Pioneer Of Geosynthetics

S I N C E 1 9 7 2

Product Data Sheet

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 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 ($2.0 x10^{-3}$)	
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**	**HP 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)	30 (0.542)
Permittivity, (sec^{-1})	ASTM D 4491	1/540,000 ft^2	1.5	0.5
Flow Rate, gpm/ft^2	ASTM D 4491	1/540,000 ft^2	110	36
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.

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