



Technical Characteristics

Two-layer, three-dimensional drainage geocomposite, consisting of a geonet core, resistant under load, heat-laminated on one side with a geotextile.
Geonet core: 100% HDPE (black) – Geotextile 100% Polypropylene (white) – 1a-Quality.

Geocomposite

Property	Test Method	Unit	Value ^(c)	
Product Type	---	---	B121	B201
Product Code	---	---	F0900B1214S	F0900B2014S
Tensile Strength MD (T _{max}) CMD (T _{max})	DIN EN ISO 10319	kN/m	15 10	21 16
In-plane Flow Capacity (q _p); MD (rigid/rigid); i = 1 at 20 kPa at 50 kPa at 100 kPa at 200 kPa at 500 kPa	DIN EN ISO 12958	l/(m x s)	1.6 1.5 1.3 1.1 0.8	1.4 1.3 1.0 0.8 0.5
Ply Adhesion	DIN EN ISO 13426-2/B	N/m	150	150

Geonet^(a)

Property	Test Method	Unit	Value ^(c)
Raw Material	---	---	High Density Polyethylene, black
Density	DIN EN ISO 1183	g/cm ³	≥ 0.94
Thickness at 20 kPa (d)	DIN EN ISO 9863-1	mm	6

Geotextiles^(a)

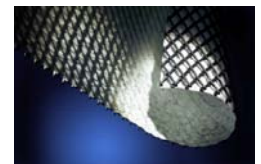
Property	Test Method	Unit	Value ^(c)	
Raw Material	---	---	Polypropylene, white	
Unit Weight (ρ _A)	DIN EN ISO 9864	g/m ²	120	200
Tensile Strength MD (T _{max}) CMD (T _{max})	DIN EN ISO 10319	kN/m	8 8	14 14
Puncture Resistance (x – s) (F _p)	DIN EN ISO 12236	N	1,120	1,890
Characteristic Opening Size (O ₉₀)	DIN EN ISO 12956	μm	100	60
Water Permeability Velocity Index (VI _{H50}) Flux normal to the Plane (q _N)	DIN EN ISO 11058	mm/s l/(m ² x s)	100 100	65 65

Durability Characteristics

Property	Test Method	Unit	Value ^(c)
Carbon Black Content ^(b)	ASTM D 1603	%	2.0 – 3.0
Oxidative Induction Time (OIT) ^(b)	ASTM D 3895 (190°C; Pure O ₂ ; 1 atm)	min	100
UV Resistance ^(c)	---	---	to be covered within 2 weeks
Resistance to Oxidation at elevated Oxygen Pressure ^(b) Tensile Strength and Tensile Elongation – retained values after 14 days	EN ISO 13438 (C1; pH 10; 80°C; 5 MPa)	%	no significant change of initial properties

The product information set forth herein contains guiding values, achieved in our laboratories and/or independent testing institutes on basis of valid test standards and reflects our best knowledge at the time of issue. The values are subject to usual variation in production. The constant quality is verified according to ISO 9001:2000.

This information is provided for reference purposes only and is not intended as a warranty or guarantee. GSE assumes no liability in connection with the use of this information. Please check with GSE for current, standard minimum quality assurance procedures. This information is subject to change without prior notice. Please contact GSE for updated information.



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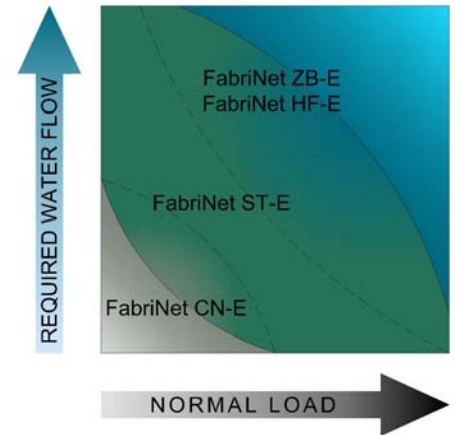
1213-CPD-4166

09-07-17-FabriNet HF-E B121/201-E



Product Description

GSE FabriNet HF-E is a three-layer, three-dimensional drainage geocomposite – providing drainage, filtration and protection function dependent on height of normal load. The drainage core, an x-shaped geonet, is produced from virgin premium grade high density polyethylene (HDPE). The polyethylene resin is designed specifically for durable applications. The geonet is formulated to resist chemical and microbiological attack and thermal ageing and provides outstanding durability. The core is covered on both sides with high quality needlepunched nonwoven polypropylene (PP) geotextiles. The layers are heat-bonded by thermal lamination^(*). GSE FabriNet HF-E provides a high internal shear strength. Due to its very high resistance against creeping it can be used under permanent compressive shear strength. GSE FabriNet geocomposites are available in various thicknesses. The tables contain index characteristics. Please contact GSE for information regarding performance of the product under site-specific load, gradient, and boundary conditions.



Typical Applications

GSE FabriNet HF-E has been developed to provide drainage function over a broad range of anticipated site loads and gradients, thus providing the possibility to fully/partially replace mineral drainage and filter layers. GSE FabriNet HF-E has been designed for the collection and discharge of rain water (precipitation) and landfill gas in landfill capping systems. Dependent on normal load and sieve size of overlaying mineral layers GSE FabriNet HF-E provides high protection efficiency against puncturing of geomembranes. GSE FabriNet HF-E can also be used in different applications in the civil engineering and the building construction sector. Due to the optimized width and length of GSE FabriNet HF-E installation at site can be realized rapidly and economically.

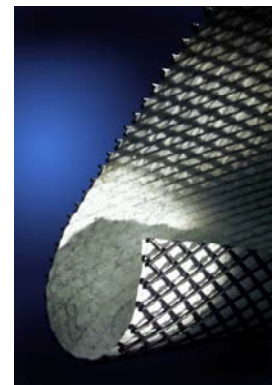
Roll Dimensions

	Unit	Container Load		Truck Load	
		B121	B201	B121	B201
Roll Width (Geonet Core) (approx.) (b) (d)	m	4.1	4.1	4.1	4.1
Roll Length (approx.) (l) (d)	m	55	55	70	60
Roll Area (approx.)	m ²	225.5	225.5	287	246

- (*): All values - unless otherwise noted - are guiding values. Minimum values are within the 95% confidence interval
- (**): Leaving a width of approx. 20 cm without heat-bonding at both edges in the MD / on both sides – enabling sufficient geonet overlapping during installation
- (a): Component properties prior to lamination
- (b): Geonet properties
- (c): Geotextile properties
- (d): Roll width and length have a tolerance of -1%

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