

GSE FabriNet HF-E

Three-layer, three-dimensional drainage geocomposite, consisting of a geonet core, resistant under load, heat-laminated on both sides with geotextiles. Geonet core: 100% HDPE (black) - Geotextile 100% Polypropylene (white) - 1a quality. The layers are heat-bonded by thermal lamination. The geocomposite is designed and formulated to perform drainage function under a range of anticipated site loads, gradients and boundary conditions.



AT THE CORE:
Multilayer, multifunctional HDPE geocomposite providing increased durability for drainage, filtration and puncture protection.

Product Specifications

Tested Property	Test Method	Unit	Value(*)			
Geocomposite						
Product Type	---	---	B120		B200	
Tensile Strength MD (T _{max}) CMD (T _{max})	DIN EN ISO 10319	kN/m	25 18			
In-plane Flow Capacity (q _p); MD (rigid/rigid) ^(a) at 20 kPa at 50 kPa at 100 kPa at 200 kPa at 500 kPa	DIN EN ISO 12958	l/(m x s)	i=1 1.2 1.1 1.0 0.9 0.65	i=0.1 0.3 0.27 0.25 0.22 0.16	i=1 1.0 0.9 0.75 0.6 0.4	i=0.1 0.25 0.2 0.16 0.12 0.05
Ply Adhesion	DIN EN ISO 13426-2/B	N/m	150		150	
Geonet ^(b)						
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 ^(b)						
Raw Material	---	---	Polypropylene, white			
Unit Weight (pA)	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 (V _{I-50}) Flux normal to the Plane (q _N)	DIN EN ISO 11058	mm/s l/(m ² x s)	100 100	65 65		
Durability Characteristics						
Carbon Black Content ^(c)	ASTM D 4218	%	2.0 - 3.0			
Oxidative Induction Time (OIT) ^(c)	ASTM D 3895 (190°C; Pure O ₂ ; 1 atm)	min	100			
UV Resistance ^(d)	---	---	to be covered within 2 weeks			
Resistance to Oxidation at elevated Oxygen Pressure ^(c) Tensile Strength and Tensile Elongation - retained values after 14 days	EN ISO 13438 (CI; pH 10; 80°C; 5 MPa)	%	no significant change of initial properties			
Roll Dimensions			Container Load		Truck Load	
Roll Width (Geonet Core) (approx.) ^(e)		m	4.1	4.1	4.1	4.1
Roll Length (approx.) ^(e)		m	60	55	70	60
Roll Area (approx.)		m ²	246	225.5	287	246

NOTES:

- (*): 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): Test specimen with 300 x 300 mm
- (b): Component properties prior to lamination
- (c): Geonet properties
- (d): Geotextile properties
- (e): Roll width and length have a tolerance of ± 1%

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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.



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