Fibre-reinforced Geosynthetic Clay Liner (GBR-C)

Naue

CE
0799-CRP-20

Bentofix® B 5000 g

Silverstream, New Zealand

Bentofix® B 5000 g is a shear strength transmitting geosynthetic clay barrier (GBR-C), continuously needle-punched through all components. A GBR-C is also known as geosynthetic clay liner (GCL) or bentonite mat. Additional bentonite powder is impregnated into a 500 mm overlapping area on both longitudinal sides of the cover layer. There is a 200 mm overlapping of the slit film woven on both sides. The 300 mm length longitudinal overlapping areas are marked on the carrier layer.

Property	Test method*	Unit	Values
Geotextile layers:			
Cover layer (polypropylene nonwoven):			
Mass per unit area	ASTM D5261	g/m²	≥ 240
Carrier layer (nonwoven-woven-composite):			
Mass per unit area	ASTM D5261	g/m²	≥ 350
Bentonite layer (sodium bentonite powder):			
Mass per unit area	ASTM D5993 ($\rho_{CLAY,0\%}$)	g/m²	≥ 3,500
Swell index	ASTM D5890	ml/2g	≥ 24
Fluid Loss	ASTM D5891	ml	≤ 18
Carbonate content	XRD	% wt	1-2
Montmorillonite content	XRD	%	> 70
Particle size	passing a 0.075mm sieve	%	> 80
Cation exchange capacity	Methylene Blue Method	meq/100 g	≥ 70
Moisture content	ASTM D5993	%	≤ 15
Geosynthetic Clay Liner:			
Mass per unit area	ASTM D5993 ($\rho_{GBR\text{-}C,\ 0\%}$)	g/m²	≥ 4,090
Thickness	EN ISO 9863-1	mm	≥ 6.3
Tensile strength, md/cmd**	ASTM D6768	kN/m	≥ 15.0 / ≥ 20.0
Elongation at max. strength, md/cmd**	ASTM D6768	%	≥ 40 / ≥ 40
Peel strength	ASTM D6496	N/m	≥ 600
CBR puncture***	ASTM D6241	N	≥ 4,050
Permeability / Hydraulic Conductivity (k_{10})	ASTM D5887	m/s	≤ 3.0 x 10^{-11}
Index Flux (q_{10})	EN 16416 / ASTM D5887	(m³/m²)/s	≤ 5.8 x 10^{-9}
Roll dimensions:			
width x length	-	m x m	5.00 x 35

** = based on; **md = machine direction, cmd = cross machine direction, ***=The highest peak will be evaluated*

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The listed technical values are either minimum values (≥) or maximum values (≤), achieved in our laboratories and/or independent testing institutes. Our products are subject to changes without prior notice.