Greenfix
Soil Stabilisation and Erosion Control Specialists

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Greenfix Geosynthetic Clay Liner-410PP

Geomembrane Geocomposite

Greenfix GCL-410PP is a reinforced geosynthetic clay liner consisting of a layer of sodium bentonite between a woven and nonwoven geotextile, which are need punched together and laminated to a flexible membrane liner. The Greenfix GCL-410PP provides excellent hydraulic performance and has puncture and tensile strength beyond conventional plastic membranes. These characteristics make the GCL-410PP applicable for use in landfill covers, ponds and liquid containments projects.

Material Property	Test Method	Typical Value	Test Frequency
Hydraulic Conductivity	ASTM D 5084	No measured Flow	Periodic
Total Mass / Unit Area	EN14196	4.10kg/m2	5000m2
Bentonite Mass / Unit Area	EN14196	3.60kg/m2	5000m2
Tensile Strength MD /CMD	EN ISO 10319	11.0/ 11.0k N/m	5000m2
Elongation at Break MD/CMD	EN ISO 10319	20%	5000m2
Puncture Resistance (CBR)	EN ISO 12236	1.8 k N	5000m2
Peel Strength	ASTM D 6496	650N /m	5000m2
Thickness	EN ISO 9863-1	7.0mm	5000m2
Roll Length	-	40,0m	Continuous
Roll Width	-	5,0m	Continuous
Bentonite			
Free Swell	ASTM D 5890	25 ml/2g	5000m2
Fluid Loss	ASTM D 5891	Max 18 ml	5000m2
Montmorillonite Content	XRD	80%	Certified by supplier
Geotextiles (PP)			
Nonwoven Mass / Unit Area	EN ISO 9864	200g/m2	Certified by supplier
Woven Mass / Unit Area	EN ISO 9864	100g/m2	Certified by supplier
Geomembrane Thickness	EN ISO 9863-1	0.2mm	Certified by supplier

Notes:
[1] Hydraulic conductivity testing with deaired distilled/deionized water at 550 kPa cell pressure, 530 kPa headwater pressure and 515 kPa tailwater pressure, ASTM D 5084 testing is performed only on a periodic basis because the membrane is essentially impermeable
[2] Bentonite mass/unit area reported at 0% moisture content
[3] Tensile Strength with tolerance −2,0 kN/m
[4] Puncture Resistance (CBR) with tolerance −0,2 kN
[5] Peel Strength testing is performed in machine direction
[6] Montmorillonite content with tolerance ±10%