PRODUCT SPECIFICATION

Greenfix
Soil Stabilisation and Erosion Control Specialists

Greenfix Geosynthetic Clay Liner-410PP - Geomembrane Geocomposite

Application and Benefits

Greenfix GCL-410PP is a reinforced geosynthetic clay liner consisting of a layer of sodium bentonite between a woven and non woven 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.

Product Characteristics

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 kN	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
Geotextile (PP)			
Non woven 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:
Hydraulic conductivity testing with dearied/ deionized water at 550kPa cell pressure. 530kPa headwater pressure and 515kPa tail water pressures, ASTM D 5084 testing is performed only on a periodic basis because the membrane is essentially impermeable.
Bentonite mass / unit area reported at 0% moisture content
Tensile strength and tolerance -2.0kN/m
Puncture resistance (CBR) with tolerance -0.2kN
Peel strength testing is performed in machine direction
Montorillonite content with tolerance +/-10%