

RESISTEX® ST CERTIFIED PROPERTIES

Resistex is designed to provide GCL chemical compatibility in moderately aggressive leachate environments such as some coal combustion product storage facilities, mining operations, and industrial waste storage facilities. Site-specific compatibility testing is strongly recommended.

MATERIAL PROPERTY	TEST METHOD	TEST FREQUENCY FT ² (M ²)	REQUIRED VALUES
Bentonite Swell Index ¹	ASTM D 5890	1 per 50 tonnes	24 mL/2g min.
Bentonite Fluid Loss ¹	ASTM D 5891	1 per 50 tonnes	18 mL max.
Bentonite Mass/Area ²	ASTM D 5993	40,000 ft ² (4,000 m ²)	0.75 lb/ft ² (3.6 kg/m ²) min
Fann Viscosity	API 13A mod ³	200,000 ft ² (20,000 m ²)	11 min to 15 max, cps
Loss on Ignition	ASTM D7626	200,000 ft ² (20,000 m ²)	2.5% min to 5.0% max
GCL Tensile Strength ³	ASTM D 6768	200,000 ft ² (20,000 m ²)	30 lbs/in (53 N/cm) MARV
GCL Peel Strength ³	ASTM D 6496	40,000 ft ² (4,000 m ²)	3.5 lbs/in (6.1 N/cm) min
GCL Hydraulic Conductivity ⁴	ASTM D 6766	Annually	< 3 x 10 ⁻⁹ cm/sec
GCL Hydrated Internal Shear Strength ⁵	ASTM D 5321 ASTM D 6243	Periodic	500 psf (24 kPa) typ @ 200 psf

Resistex ST is a reinforced GCL consisting of a layer of granular sodium bentonite between two nonwoven geotextiles, which are needle punched together. The sodium bentonite in Resistex ST is modified with a proprietary polymer to improve chemical resistance against selected contaminants. Site-specific compatibility testing is recommended.

Notes:

¹ Bentonite property tests performed at a bentonite processing facility before shipment to CETCO's GCL production facilities.

² Bentonite mass/area reported at 0 percent moisture content.

³ All tensile strength testing is performed in the machine direction using ASTM D 6768. All peel strength testing is performed using ASTM D 6496. Upon request, tensile and peel results can be reported per modified ASTM D 4632 using 4 inch grips.

⁴ Index flux and permeability testing with deaired distilled/deionized water at 80 psi (551kPa) cell pressure, 77 psi (531 kPa) headwater pressure and 75 psi (517 kPa) tail water pressure. Reported value is equivalent to 925 gal/acre/day. This flux value is equivalent to a permeability of 5x10⁻⁹ cm/sec for typical GCL thickness. Actual flux values vary with field condition pressures. The last 20 weekly values prior the end of the production date of the supplied GCL may be provided.

⁵ Peak values measured at 200 psf (10 kPa) normal stress for a specimen hydrated for 48 hours. Site-specific materials, GCL products, and test conditions must be used to verify internal and interface strength of the proposed design.