

AGRU GeoClay®

WN33

AGRU America's GeoClay WN33 is an unreinforced needle-punched geosynthetic clay liner that comprises a uniform layer of granular bentonite that is encapsulated between a woven and a nonwoven geotextile. These products are intended for moderate to steep slopes and moderate- to high-load applications, where increased internal shear strength is required.

GEOTEXTILE COMPONENT

GEOTEXTILE PROPERTY	TEST METHOD	FREQUENCY	
Upper Nonwoven, Mass/Unit Area, oz/yd ² (g/m ²)	ASTM D5261	200,000 sf	3.0 (100)
Lower Woven, Mass/Unit Area, oz/yd ² (g/m ²)	ASTM D5261	200,000 sf	3.1 (100)

BENTONITE PROPERTY¹

BENTONITE PROPERTY ¹	TEST METHOD	FREQUENCY	MINIMUM AVERAGE ROLL VALUE
Swell Index, ml/2 g min	ASTM D5890	100,000 lb	24
Moisture Content, %	ASTM D5993	100,000 lb	12% max
Fluid Loss, ml	ASTM D5891	100,000 lb	18 max

FINISHED GCL PROPERTY

FINISHED GCL PROPERTY	TEST METHOD	FREQUENCY	MINIMUM AVERAGE ROLL VALUE
Bentonite, Mass/Unit Area ² , lb/ft ² (kg/m ²)	ASTM D5993	40,000 sf	0.75 (3.6)
Tensile Strength ³ , lb/in (N/cm)	ASTM D6768	40,000 sf	30 (53)
Peel Strength ³ lb/in (N/cm)	ASTM D6496	40,000 sf	1 (1.7)
Hydraulic Conductivity ⁴ cm/sec max	ASTM D5887	1/week	5x10 ⁻⁹
Index Flux ⁴ m ³ /m ² /sec max	ASTM D5887	1/week	1x10 ⁻⁸
Internal Shear Strength ⁵ psf (kPa)	ASTM D6243	Periodically	150 (7.2)

SUPPLY INFORMATION

ROLL SIZE	WIDTH		LENGTH		AREA	
	FT	M	FT	M	FT ²	M ²
	15.5	4.7	150	45.7	2,325	216

Notes:

- (1) Bentonite properties tests performed at a bentonite processing facility prior to shipment to GCL production facility
- (2) Reported at 0% moisture
- (3) Tensile strength testing performed in MD using ASTM D 6768.
- (4) Deaired, deionized water @5 psi maximum effective confining stress and 2 psi head pressure.
- (5) Specimens are hydrated for 24 hours and sheared at 200 psf. Represent typical peak value. Rolls weigh approximately 2,600 lbs, are supplied with two straps and wound on a 4.75" core.

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