

GSE BentoLiner NWL-45 Geosynthetic Clay Liner

GSE BentoLiner “NWL-45” geosynthetic clay liner (GCL) is a 45 lbs peel strength, needlepunched reinforced composite comprised of a uniform layer of granular sodium bentonite encapsulated between a scrim reinforced nonwoven and a virgin staple fiber nonwoven geotextile. The needlepunched fibers are thermally fused to the bottom scrim reinforced nonwoven geotextile to enhance the reinforcing bond.



AT THE CORE:

This composite clay liner is composed of a uniform layer of granular sodium bentonite between a nonwoven and scrim-nonwoven textile for dimensional stability.

Product Specifications

Tested Property	Test Method	Frequency	Value
Geotextile Property			
Cap Nonwoven, Mass/Unit Area	ASTM D 5261	1/200,000 ft ²	6.0 oz/yd ² MARV ⁽¹⁾
Carrier Scrim Nonwoven, Mass/Unit Area	ASTM D 5261	1/200,000 ft ²	6.0 oz/yd ² MARV ⁽¹⁾
Bentonite Property			
Swell Index	ASTM D 5890	1/100,000 lb	24 ml/2 g min
Moisture Content	ASTM D 4643	1/100,000 lb	12% max
Fluid Loss	ASTM D 5891	1/100,000 lb	18 ml max
Finished GCL Property			
Bentonite, Mass/Unit Area ⁽²⁾	ASTM D 5993	1/40,000 ft ²	0.75 lb/ft ² MARV
Tensile Properties, Tensile Strength ⁽⁴⁾ Grab Strength ⁽³⁾	ASTM D 6768 ASTM D 5035	1/40,000 ft ²	45 lb/in MARV 150 lb MARV
Peel Strength ⁽⁴⁾	ASTM D 6496 ASTM D 4632	1/40,000 ft ²	7.2 lb/in min 45 lb min
Hydraulic Conductivity ⁽⁵⁾	ASTM D 5887	1/Week	5 x 10 ⁻⁹ cm/sec max
Index Flux ⁽⁵⁾	ASTM D 5887	1/Week	1 x 10 ⁻⁸ m ³ /m ² /sec max
Internal Shear Strength ⁽⁶⁾	ASTM D 6243	Periodically	500 psf Typical
TYPICAL ROLL DIMENSIONS			
Width x Length ⁽⁷⁾	Typical	Every Roll	15.5 ft x 150 ft
Area per Roll	Typical	Every Roll	2,325 ft ²
Packaged Weight	Typical	Every Roll	2,600 lb

NOTES:

- ⁽¹⁾Minimum Average Roll Value.
- ⁽²⁾At 0% moisture content.
- ⁽³⁾Measured at maximum peak, in weakest principal direction.
- ⁽⁴⁾4 in wide sample, average of 5 specimens.
- ⁽⁵⁾Deaired, deionized water @ 5 psi maximum effective confining stress and 2 psi head pressure.
- ⁽⁶⁾Typical peak value for specimen hydrated for 24 hours and sheared under a 200 psf normal stress.
- ⁽⁷⁾Roll widths and lengths have a tolerance of ±1%.

GSE is a leading manufacturer and marketer of geosynthetic lining products and services. We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.



[DURABILITY RUNS DEEP] For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.