PRODUCT DATA SHEET

GSE GundSeal Geosynthetic Clay Liner (Smooth HDPE)

GSE GundSeal geosynthetic clay liner (GCL) is a composite liner system that consists of a high quality sodium bentonite adhered to a smooth high density polyethylene (HDPE) geomembrane with a spun-bonded geotextile to protect the bentonite during installation. This one product composite liner system combines the low permeability of an HDPE geomembrane with the self-seaming characteristics of bentonite clay. The intimate contact of the bentonite with the geomembrane provides the best leak protection in the industry.

AT THE CORE:

A composite liner system that combines the low permeability of an HDPE geomembrane with the self-seaming characteristics of bentonite clay to provide the best leak protection in the industry.

Product Specifications

Tested Property	Test Method	Frequency	Minimum Average Value					
Finished GCL Property			15 mil	20 mil	30 mil	40 mil	60 mil	80 mil
Bentonite Coating[1], lb/ft²	ASTM D 5993	1/40,000 ft²	> 0.75					
Effective Hydraulic Conductivity, cm/sec	ASTM D 5887/E96	periodically	< 4 x 10^{-12}					
Bentonite Moisture Content	ASTM D 2216	1/40,000 ft²	25% Typical					
GCL Tensile Strength[3], lb/in	ASTM D 6768	1/200,000 ft²	20	42	63	84	130	173
Geomembrane Property[2]								
Thickness, mil Lowest individual reading	ASTM D 5199	1/100,000 ft²	15.0 13.5	20 18	30 27	40 36	60 54	80 72
Density, g/cm³	ASTM D 1505	1/200,000 ft²	0.94	0.94	0.94	0.94	0.94	0.94
Tensile Properties Tensile Break Strength, lb/in Elongation at Break, %	 ASTM D 6693 ASTM D 6693	 1/200,000 ft² 1/200,000 ft²	 44 500	 76 500	 114 700	 152 700	 228 700	 304 700
Puncture Resistance, lb	ASTM D 4833	1/200,000 ft²	20	36	54	72	108	144
Sodium Bentonite Property								
Hydraulic Flux: Bentonite, m³/m²/sec	ASTM D 5887	periodically	≤ 1 x 10^{-8}					
Hydraulic Conductivity, cm/sec	ASTM D 5887	periodically	≤ 5 x 10^{-9}					
Swell Index, ml/2 g	ASTM D 5890	1/60,000 lb	≥ 24					
Fluid Loss, ml	ASTM D 5891	1/60,000 lb	≤ 18					
TYPICAL ROLL DIMENSIONS								
Roll Width[4], ft			17.5	17.5	17.5	17.5	17.5	17.5
Roll Length[4], ft			210	200	200	180	180	150
Roll Area, ft²			3,675	3,500	3,500	3,150	3,150	2,625
Roll Weight, lb			4,200	4,200	4,200	4,200	4,200	4,200

NOTES:

- [1]0% moisture content.
- [2]See specific GSE HD geomembrane product data sheet for additional information.
- [3]4 in wide sample, 12 in/min. Values are representative of the geomembrane tensile yield strength.
- [4]Roll lengths and widths 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.

GSE ENVIRONMENTAL™

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.