

# Geosynthetic Clay Liners (GCLs)

GCLs are high performance environmental liners comprised of a layer of low-permeability sodium bentonite combined with geosynthetic carriers, such as woven and/or nonwoven geotextiles, and in some cases a geomembrane.

GCLs have been proven to provide better engineered performance and durability than several feet of compacted clay with a total composite thickness of less than one quarter of an inch.

GSE GCLs offer these benefits to exceed your GCL expectations:

- Highest quality, pure, non-amended Wyoming grade sodium bentonite
- Scrim reinforced
- Needle-free product
- Highest internal shear strength product
- Proven GCL dimensional stability
- More versatile than compacted clay
- Easy installation
- Optimum freight loadability
- Two North American manufacturing facilities centrally located for immediate delivery and lower freight cost



To view the properties of a specific GCL, click on the products below.

GCL PRODUCTS	APPLICATIONS		PANEL & ROLL SPECIFICATIONS	DATA SHEETS
	• Agriculture	• Landfills		
	• Mining	• Slopes		
	• Ponds	• Wetlands		
<b>Fabric Encased Geosynthetic Clay Liners</b>				
<b>GSE BentoLiner EC</b> (Most Economical GCL)	This GCL is intended for use on relatively flat slope surfaces and low applications where minimal internal shear strength is required.		- Available in 15.5 ft rolls - 150 ft long - 2,325 sf/roll - 17 rolls/truck	Data Sheet
<b>GSE BentoLiner NSL</b> (Woven/Nonwoven Geotextiles)	This GCL is intended for moderate to steep slopes and moderate to high load applications where increased internal shear strength is required.		- Available in 15.5 ft rolls - 150 ft long - 2,325 sf/roll - 17 rolls/truck	Data Sheet
<b>GSE BentoLiner NWL</b> (Scrim Nonwoven/Nonwoven Geotextiles)	This GCL is intended for moderate to steep slopes and moderate to high load applications where increased internal shear strength is required.		- Available in 15.5 ft rolls - 150 ft long - 2,325 sf/roll - 17 rolls/truck	Data Sheet
<b>GSE BentoLiner NWL-60</b> (Scrim Nonwoven/Nonwoven Geotextiles)	This GCL is intended for steep slopes and high load applications where increased internal shear strength is required.		- Available in 15.5 ft rolls - 150 ft long - 2,325 sf/roll - 17 rolls/truck	Data Sheet
<b>GSE BentoLiner CNSL</b> (Coated GCL)	This GCL is intended for applications that require excellent hydraulic conductivity properties and/or bentonite protection for moderate to steep slope slopes and moderate to high load applications where increased internal shear strength is required.		- Available in 15.5 ft rolls - 150 ft long - 2,325 sf/roll - 17 rolls/truck	Data Sheet
<b>Geomembrane Supported Geosynthetic Clay Liners</b>				
<b>GSE GundSeal</b> (Smooth HDPE)	This GCL is intended for a bottom liner system to contain fluid or for a cover system to keep fluid out.		- Available in 17.5 ft rolls - 150-200 ft long - 2,625-3,500 sf/roll - 11-12 rolls/truck	Data Sheet
<b>GSE GundSeal</b> (Textured HDPE)	This GCL is intended for a bottom liner system to contain fluid or for a cover system to keep fluid out.		- Available in 17.5 ft rolls - 150-200 ft long - 2,625-3,500 sf/roll - 11-12 rolls/truck	Data Sheet

**Drop-In Specifications**

GSE BentoLiner

GSE GundSeal

**Application Sheets**

GSE BentoLiner

GSE GundSeal

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