



PREVENT CONTAMINATION WITH AN AUSTRALIAN MADE LINING SYSTEM

ELCOSEAL® GEOSYNTHETIC CLAY LINER



protect
contain
secure

GEOFABRICS®
Sustainable solutions



The equivalent hydraulic protection of a

1m thick layer of compacted clay layers



Australian made

Elcoseal Geosynthetic Clay Liner

Elcoseal® Geosynthetic Clay Liners (GCLs) are used as a lining system in landfill, liquid waste and water containment structures to form a barrier that prevents contamination of surrounding groundwater.

It is also commonly used to contain liquid in effluent ponds, tailing dams, ponds, lakes, wetlands, irrigation canals and channels.

Elcoseal GCL is made in Australia and consists of a layer of high-quality sodium bentonite powder bonded between two or more layers of woven and non-woven geotextiles which are made with high tenacity polypropylene fibres. A needle-punching process reinforces the bentonite layer with thousands of fibres, improving confinement and internal shear strength. An additional heat-treating process called thermal locking secures the needle-punched fibres, further improving strength and performance.

Why choose Elcoseal?

Elcoseal GCLs have rapid sealing and self-healing abilities due to increased surface area of the powdered sodium bentonite clay which swells when hydrated. In fact, it can swell laterally around holes or punctures so there is less chance of leaks due to installation damage.

Elcoseal allows landfill, and other waste and water containment structures, such as tailings dams, to be built faster and more cost effectively when compared to traditional lining systems.

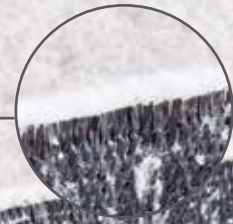
Elcoseal GCL provides:

- Enhanced reliability due to consistent low permeability performance
- Increased void spacing within the landfill by removing the need for 1-metre-thick compacted clay layer
- The equivalent hydraulic protection of a one-metre-thick layer of compacted clay
- Simpler installation method, reducing the time required to construct a landfill cell or waste containment structure
- Reduced installation time and wastage due to supply of rolls to custom grades and roll lengths, allowing a single roll to be installed down a slope
- Proven sealing techniques and simple overlap process along the edges, removing the need for a specialist installation crew

ELCOSEAL GCL RANGE

Product Code	Roll Size	Weight
X800	4.7m x 45m	1,048kg
X1000		1,124kg
X2000		1,103kg
X3000		1,265kg

The rapid sealing performance of the Elcoseal GCLs are derived from the increased surface area of the powdered sodium bentonite clay used in the Elcoseal GCL.



THERMAL LOCKING PROCESS SECURES THE NEEDLE-PUNCHED FIBRES, FURTHER IMPROVING STRENGTH AND PERFORMANCE



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LANDFILL APPLICATIONS

	WASTE & LANDFILL	<ul style="list-style-type: none"> • Reduces the leakage of leachate out of the landfill waste body and prevent water infiltration through the top surface of the landfill • Can be used in landfill base liners, side slopes and caps to replace or supplement traditional lining systems
	MINING	<ul style="list-style-type: none"> • Allows tailing ponds and rehabilitation projects to be built faster and more cost-effectively • Reduces leakage of contaminant materials from the site and assists mining companies to achieve environmental compliance
	GAS CONTAINMENT	<ul style="list-style-type: none"> • Used in conjunction with gas collection systems to prevent the migration of gases from landfills or contaminated sites
	WATER & OTHER LIQUID CONTAINMENT	<ul style="list-style-type: none"> • Provides excellent liquid containment in reservoirs, wetlands and irrigation canals, lagoons, effluent and industrial and landscaped ponds due to its' low permeability, high internal shear strength and easy installation method

ADDITIONAL BENEFITS OF WORKING WITH GEOFABRICS

REDUCED RISK	<ul style="list-style-type: none"> • Compatibility testing at the Geosynthetic Research, Innovation and Development (GRID) facility ensuring the site-specific liquor or waste will be contained by the lining system • Strict Manufacturing Quality Assurance (MQA) provides a higher level of consistency in the lining layer
ENHANCED PERFORMANCE AND RELIABILITY	<ul style="list-style-type: none"> • Consistent low permeability performance • Reduced leakage resulting from installation damage due to the self-healing nature of Elcoseal - the sodium bentonite clay is confined vertically by the thermally locked geotextile layers but can swell laterally around the puncture • Proven edge sealing techniques
COST BENEFITS	<ul style="list-style-type: none"> • Simpler installation process, reducing the time required to construct a landfill cell or waste containment structure • Proven edge sealing technique and simple overlap process along the edges, removes the need for a specialist installation crew • Reduced installation time and wastage due to supply of rolls to specific roll lengths allowing a single roll to be installed down a slope • Increased void spacing in the landfill removes the need for 1-metre-thick compacted clay layers
TECHNICAL EVALUATION AND INSTALLATION SUPPORT	<ul style="list-style-type: none"> • Compatibility testing at the GRID facility ensuring the site-specific liquor or waste will be contained by the lining system • A range of supporting services are available including installation frames, safety accredited lifting slings, and project specific advice and assistance from our team of Geofabrics engineers



LANDFILL CAN BE BUILT FASTER & MORE COST EFFECTIVELY, COMPARED TO TRADITIONAL LINING SYSTEMS



Has rapid sealing and self-healing abilities due to increased surface area of the powdered sodium bentonite clay.

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AUSTRALIAN-MADE GEOFABRICS

Geofabrics is the only geotextile manufacturer in Australia, with plants in Albury and Ormeau. We pride ourselves on providing unrivalled service to our customers. We can recommend the best geosynthetic product to achieve the objectives of your project and ensure it's available when you need it.

Over 40 years of experience allows our technical staff to provide practical support, based on local conditions. We are proud to have been recognised in the Australian Financial Review (AFR) Most Innovative Company list in 2020 with Bidim Green.

In 2021, Geofabrics ranked #1 in AFR's Most Innovative Company for Manufacturing and Consumer Goods for Sorbseal.

With a view to the future, we are committed to improving the sustainability of our business by reducing waste to landfill, lowering our carbon emissions and investing in our people.



Visit [geofabrics.co](https://www.geofabrics.co) or call 1300 60 60 20 (AU)
or [geofabrics.co.nz](https://www.geofabrics.co.nz) or call 0800 60 60 20 (NZ)

GEOFABRICS[®]
Sustainable solutions