



PROTECT FROM CONTAMINANTS WITH AUSTRALIAN-MADE INNOVATION

SORBSEAL® HYBRID GEOSYNTHETIC CLAY LINER



GEOFABRICS®
Sustainable solutions



100's
of years of
effective
containment

Used as
a liner or
laid over
contaminated
soil to
stop
PFAS
leaking out

Sorbseal hybrid Geosynthetic Clay Liner

Sorbseal® is an Australian made hybrid Geosynthetic Clay Liner (hGCL) which works as a barrier to liquids and helps trap a wide range of contaminants, including potentially dangerous Per- and Polyfluoroalkyl Substances (PFAS), preventing them from entering the surrounding environment.

Why choose Sorbseal?

Sorbseal has been modified with a very specific, high surface area powdered activated carbon and when used in composite lining designs, it can be an effective barrier for hundreds of years. Sorbseal is essentially a supercharged GCL with the ability to capture a lot more contaminants than standard GCLs that are made with bentonite alone. The powdered activated carbon enables the microscopic PFAS chemical contaminants to be attracted to, and then trapped inside the pores of the powdered activated carbon.

Sorbseal is:

- Reliable and safe-to-use as it is engineered to meet the EPA's National Environmental Management Plan (NEMP) guidelines on maximum levels of PFOS, PFOA and PFHxS
- Customisable to suit specific site chemistries for tailored solutions
- For multiple uses across a range of applications including base liners, ponds and capping of contaminated materials

About PFAS contamination

PFAS are a very large group of chemicals which have been in use since the 1950's in a wide variety of products, including non-stick cookware, carpet treatments, shampoo and fire-fighting foam. Their unique chemistry allows them to resist water and oil as well as survive extreme temperatures.

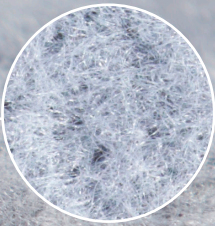
PFAS chemicals can last a very long time in nature and can build up in the soil, plants, animals and humans. There is an increasing amount of evidence which suggests exposure to these chemicals can be harmful to our health.

Because they are used in a wide range of products that we use in our everyday lives, they end up in landfill. This is where Sorbseal can help by lining and capping the landfill, ensuring that these harmful chemicals do not find their way into the environment.

Using Sorbseal vs GCL

Initial studies on standard GCLs showed poor retention of a number of PFAS chemicals and compounds. The primary difference between Sorbseal and a standard GCL is the addition of the powdered activated carbon. The bentonite is the same and the cover and carrier geotextiles are the same, so for those designing with standard GCLs, there's no need to change traditional design methodologies. The hydraulic performance, mechanical behaviour and internal shear strength properties, all remain within expected standard GCL parameters.

The powdered activated carbon enables the microscopic PFAS chemical contaminants to be attracted to, and then trapped inside the pores of the powdered activated carbon.




**A BARRIER TO LIQUIDS AND HELPS TRAP
A WIDE RANGE OF CONTAMINANTS**



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SECTOR SPECIFIC DETAILS

	WASTE	<ul style="list-style-type: none"> • A study conducted by The University of Queensland detected PFAS in every one of 35 landfill sites across Australia, whether it was still operational or now closed • Sorbseal can be used as a liner or laid over contaminated landfill sites like a blanket to stop PFAS leaking out • Rigorous testing shows Sorbseal can trap PFAS within contaminated liquid and soil to stop the spread for hundreds of years
	MINING	<ul style="list-style-type: none"> • Sorbseal can also assist with PFAS contamination in mining leachate ponds • Sorbseal can be used as a liner of leachate ponds to stop PFAS leaking out • Rigorous testing shows Sorbseal can trap PFAS within contaminated liquid and soil to stop the spread for hundreds of years
	DEFENCE	<ul style="list-style-type: none"> • Most experienced geosynthetic waste and containment team in Australasia • Lining systems designed to exceed regulatory guidelines to protect the environment through the control of hazardous leachates and liquors • Needle-free to help prevent damage to the liner

ADDITIONAL BENEFITS OF WORKING WITH GEOFABRICS

REDUCED RISK	<ul style="list-style-type: none"> • Produced to strict manufacturing Quality Assurance (QA) provided by a geosynthetics NATA accredited laboratory, ensuring consistent quality for the entire project • Rolls are numbered individually and traceable back to the actual QA test results • Laboratory support is provided for the construction QA process for Sorbseal
ENHANCED PERFORMANCE AND RELIABILITY	<ul style="list-style-type: none"> • Manufactured in Australia and installed to meet Australian specifications and conditions • The use and effectiveness in a large range of applications is supported by laboratory testing and ongoing field performance
COST BENEFITS	<ul style="list-style-type: none"> • Reduces the volume of quarried sand and rock required • Reduces construction times over swampy ground • Wider and longer rolls reduce waste with overlaps and savings on transportation costs
TECHNICAL EVALUATION AND INSTALLATION SUPPORT	<ul style="list-style-type: none"> • Supported by technical assistance from our Geofabrics engineers • Installation equipment is available to assist with efficient and correct installation • Geofabrics Research, Innovation and Development (GRID) facility available for testing into the use of Sorbseal



CAN TRAP PFAS WITHIN CONTAMINATED LIQUID AND SOIL TO STOP THE SPREAD FOR HUNDREDS OF YEARS



Uses a powdered
activated carbon hybrid
geosynthetic clay liner to
trap and seal dangerous
chemicals away



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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.

— FINANCIAL REVIEW **BOSS** —
MOST INNOVATIVE
COMPANIES



Visit **geofabrics.co** or call 1300 60 60 20 (AU)
or **geofabrics.co.nz** or call 0800 60 60 20 (NZ)

GEOFABRICS®
Sustainable solutions