



A STABILISING & DEFENSIVE BARRIER AGAINST COASTAL EROSION

ELCOROCK® GEOTEXTILE SAND CONTAINER



protect
contain
secure

GEOFABRICS®
Sustainable solutions



Elcorock Geotextile Sand Container

The Elcorock shoreline protection system consists of sand filled geotextile containers built to form a stabilising, defensive barrier against coastal erosion.

The Elcorock Geotextile Sand Containers are made from Texcel, a unique staple fibre blend of polyester and polypropylene, providing flexibility and allowing the product to resist the natural forces of the marine environment. Each sand container is filled with sand or gravel mix to build breakwaters, sea walls, revetments, groynes and artificial reefs. Elcorock is also increasingly used for berms, bridge abutments and in mining applications.

Why choose Elcorock?

Elcorock is highly resistant to abrasion, hydrocarbon, impact damage and UV degradation with over 20 years of proven success in harsh coastal environments, supported by extensive research, development and superior design support.

Elcorock Geotextile Sand Containers provide:

- Long-term outdoor durability in exposed applications due to high quality virgin polypropylene Texcel fibres which have a unique stabiliser and antioxidant formula
- A gentle batter facing the sea, fostering less severe beach erosion compared to alternative solutions
- A more cost-effective alternative to traditional coastal erosion protection systems made from concrete, rock armour, steel or timber
- A natural look and soft feel, increasing public amenity of foreshore areas, enhancing the environment and allowing people to sit on the layers of Elcorock Geotextile Sand Containers
- A composite geotextile which has an added layer of needle punched UV stabilised fibres that also act as a vandal deterrent layer

Elcorock Geotextile Sand Containers can be made to meet customers specific site requirements,

including sizes, shapes and different weights. Geofabrics has created a range of standard Elcorock Geotextile Sand Container sizes which have been tested for suitability under a broad range of wave climates. However, it is always recommended to contact Geofabrics or a coastal engineer to ensure the correct size container and design configuration is used.

Texcel R Non-Woven Staple Fibre Geotextile should also be used in conjunction with Elcorock Geotextile Sand Containers to create a shoreline protection system. The Texcel R Non-Woven Staple Fibre Geotextile is specially designed to be laid below the Elcorock Geotextile Sand Containers, providing high resistance to damage during installation and long-term filter stability in the structure.

Sustainability with Elcorock

Coastal erosion is a significant problem in Australia, New Zealand and the Pacific with rising sea levels, extreme storms and climate change having a significant impact on our shorelines.

Coastal environments are subject to nature's aggressive forces exacerbated during storm activity. Our coastlines are increasingly vulnerable during these events, resulting in erosion that can impact the amenity and safety of public space, infrastructure and property.

Our flexible and robust solutions are designed to reduce the effects of coastal and estuarine erosion while maintaining sustainable coastlines for residents and the community.

In 2018, Geofabrics won the AusTrade Australian Export Award for Environmental Solutions. Recognised for the positive environmental impact our Australian made Elcorock coastal protection system had in projects in Tuvalu and New Zealand.

20
years
of proven
success





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IT'S NEVER BEEN MORE IMPORTANT TO BUY AUSTRALIAN THAN RIGHT NOW





COASTAL APPLICATIONS

	SEA WALLS & REVETMENTS	<ul style="list-style-type: none"> • Sea walls and revetments are shore-parallel structures designed to prevent coastal erosion and flooding caused by major storm • Can be used as an alternative for sloping protective structures for many years - flexibility of the geotextile material has been proven to reduce the force of reflective wave energy more so than hard structures
	GROYNES & BREAKWATERS	<ul style="list-style-type: none"> • Capturing littoral drift of sand width and results in shoreline protection • Provides an ideal solution for groynes and breakwaters due to it's durability & stability
	RIVER & ESTUARY WORKS	<ul style="list-style-type: none"> • Damage to vegetated riverbanks and tidal riparian zones is predominantly caused by tidal movements, boat wakes and other causes of water movement in river and estuary zones • Improves riverbank stability, minimising future erosion and improving amenity and access
	ARTIFICIAL REEFS	<ul style="list-style-type: none"> • Artificial reefs are effective in reducing the full force of wave action and mitigating coastal erosion problems • Elcorock Sand Mega Container Geotextiles have been used around the world for this purpose - ranging from 6 metres to 20 metres in length and heights of up to 2 metres • Generally filled with dredge pumps and laid to rest on the ocean floor, the large containers help to create a diverse marine structure which has significant value both environmentally and for recreation in the forms of diving, surfing and fishing
	CUSTOM STRUCTURES	<ul style="list-style-type: none"> • Can be made to meet customers site requirements or custom designs, including precise sizes and shapes of the Elcorock Geotextile Sand Container and specific weights of the Texcel Geotextile

ELCOROCK PRODUCT RANGE

Product Code	Product Description	Filled Width (Approx.)	Filled Length (Approx.)	Filled Height (Approx.)
SB40VELCRO	40kg Sand Container	450mm	525mm	150mm
SB100	100kg Sand Container	550mm	900mm	200mm
ER030	0.3m ³ Sand Container	750mm	1.35m	350mm
ER075NS, ER075VNS, ER075VFNS & ER075FNS	0.75m ³ Sand Container	1.35m	1.8m	400mm
ER120NS, ER120VNS, ER120VFNS & ER120FNS	1.2m ³ Sand Container	1.5m	1.95m	500mm
ER150, ER250V, ER250VF & ER250F	2.5m ³ Sand Container	1.8m	2.3m	600mm
ER500	5.0m ³ Sand Container	3.35m	2.3m	800mm*
C4V, C6V, C8V, C12V	Mega Containers	1.2m – 4.5m	20m standard or custom lengths avail. on request	Up to 2m

* Subject to handling



**IN 2018, GEOFABRICS WON THE
AUSTRALIAN EXPORT AWARD
FOR ENVIRONMENTAL SOLUTIONS**





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• Products are tested frequently and transparently in Geofabrics quality assured testing facilities• Regular on-site product exhumation has provided analysis of the Texcel Geotextiles durability in real life scenarios of over 20 years
ENHANCED PERFORMANCE AND RELIABILITY	<ul style="list-style-type: none">• Made, tested and released according to Australian and International geosynthetic standards under an ISO 9001:2015 certified quality management system• Geofabrics products can be traced from the test results to the production batch, providing confidence in the quality and consistency of products in accordance with latest published specifications• Geofabrics commitment to world class quality provides clients with confidence that products are delivered as per project specifications, ensuring performance and life-cycle costs are optimised
COST BENEFITS	<ul style="list-style-type: none">• A more economical solution compared to rock or concrete wall as it reduces unnecessary heavy transport and installation requires less labour• Utilises local materials such as on-site sand or gravel
TECHNICAL EVALUATION AND INSTALLATION SUPPORT	<ul style="list-style-type: none">• Installation equipment is available to assist with efficient and correct installation• Supported by testing from our GRID team where required• Supported by technical assistance from our Geofabrics engineers





**HIGHLY RESISTANT TO ABRASION,
HYDROCARBON, IMPACT DAMAGE
AND UV DEGRADATION**



The flexibility of Elcorock reduces the force of reflective wave energy more so than hard structures.



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** OR CALL 1300 60 60 20 (AU)
OR **GEOFABRICS.CO.NZ** OR CALL 0800 60 60 20 (NZ)

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