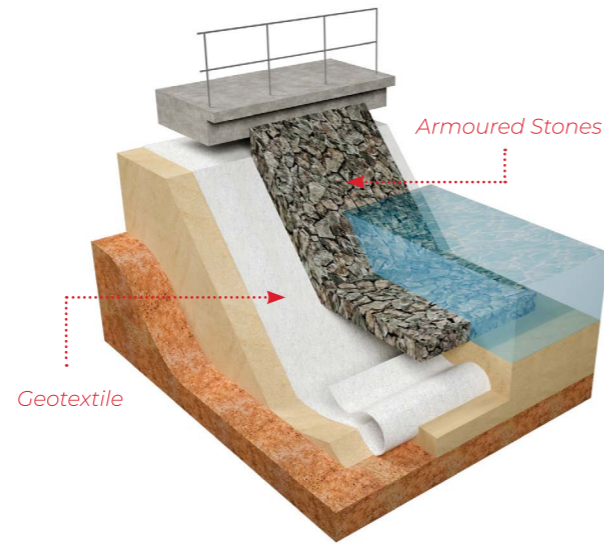


WALL TAG

Engineered Environmental Solutions
Smarter infrastructure

GEOTEXTILE

Geotag Geotextile offers a complete range of geotextile in Non-Woven, Woven as well as Composite Geotextile. Geotag Geotextile is widely used in Civil Engineering Works and is the preferred choice for designers/engineers due to its unique properties.



COASTAL PROTECTION



Geotextile used in separation application

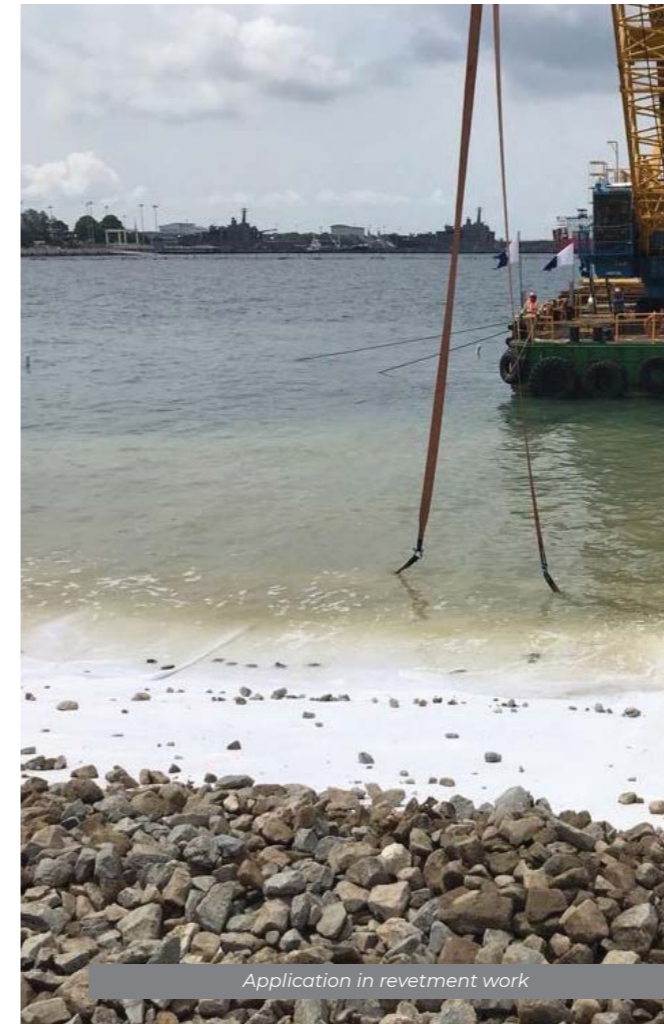


Laying of geotextile in revetment work

THE MOST COMMON APPLICATIONS INCLUDES:

- Roadworks
- Ground Stabilization
- Drainage and Filtration Systems
- Marine and Hydraulic Works
- Waste Disposal (Landfill)
- Construction Works

GEOTEXTILE NON-WOVEN • WOVEN • COMPOSITE



Application in revetment work

NON-WOVEN GEOTEXTILE

Geotag Geotextile manufactured with advanced state-of-the-art technology ensures consistently superior quality delivering:

- High strength, high elongation = high energy
- High Puncture Resistance = Excellent resistance to installation damage and ideal for Protection application
- High UV resistance = minimal strength degradation when exposed to sunlight
- Unique Hydraulic properties = high water flow
- Unique needle punching technology = no delamination of fibres.

WOVEN GEOTEXTILE

Geotag Woven Geotextile manufactured with modern technology ensuring ultimate performance in reinforcing applications. The Woven range of geotextile is widely used in applications such as Separation, Filtration, Reinforcement and Stabilization. Its unique benefits includes:

- High strength, low elongation = Strength with Control
- Resistant to ultraviolet degradation = minimal strength degradation when exposed to sunlight
- Resistant to biological clogging, making it ideal for leachate collection systems and filtration beneath hard armor system = Chemically resistant and robust.
- Unique twill pattern creates superior hydraulic characteristics = high water flow

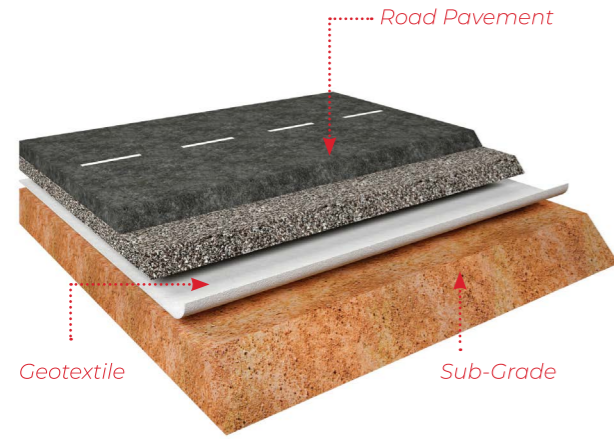


On-site Laying in progress

COMPOSITE GEOTEXTILE

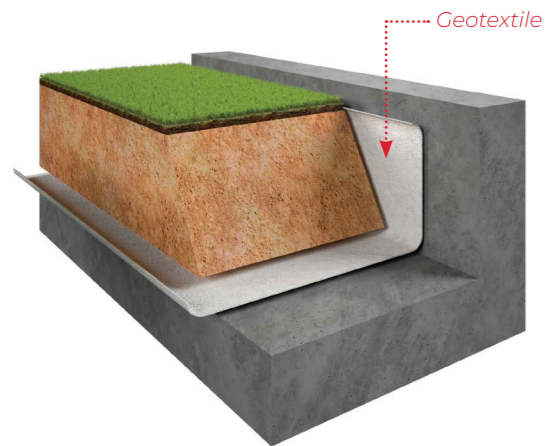
Geotag Composite Geotextile is made of high strength polyester woven fabric and non-woven polyester or polypropylene geotextile. Geotag Composite Geotextile is a combination of advantages of high-strength reinforced woven geotextile with filtration, drainage and protective properties of non-woven geotextile.

GEOTEXTILE FUNCTIONS



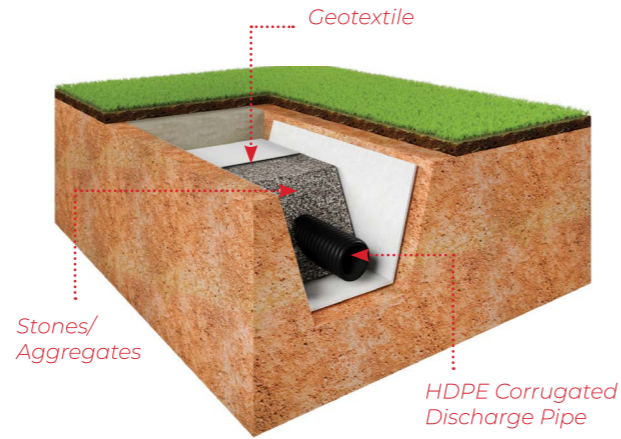
SEPARATION

Geotag Geotextile is placed between different layers of materials to prevent migration and mixing of materials such as soil, sand and gravel. It increases the bearing capacity by avoiding material loss into subgrade and increases resistance to dynamic & static stresses.



DRAINAGE

Geotag Geotextile needle punched structure ensures efficient in-plane water drainage. It ensures that water are drained with minimum pressure loss.



FILTRATION

Geotag Geotextile retains the silts and sand while allowing free movement of water. It keeps the fines separated from the drainage layer ensuring the effectiveness of the drain system.



PROTECTION

Geotag Geotextile protects fragile materials against damage and provides reinforcement against stress cracking. It protects waterproof membrane systems against perforations.

GEOGRID

There are now unprecedented demands to design economic and environmentally sustainable roads, container ports, car parks, airfields and hardstandings sited over weak or variable ground.

Tensar can provide high performance geogrid-based systems which meet these demands. The structural contribution made by Tensar® TriAx® geogrid is to stabilise the unbound layers of roads and trafficked areas to create a mechanically stabilised layer. Aggregate particles interlock with the geogrid and are confined within the apertures, creating an enhanced composite material with improved performance characteristics.

TriAx geogrid have isotropic, radial stiffness producing a truly multi-directional product. Independent trials have confirmed that the shape and form of the ribs and junctions of Tensar geogrid contribute to the performance of the mechanically stabilised layer.

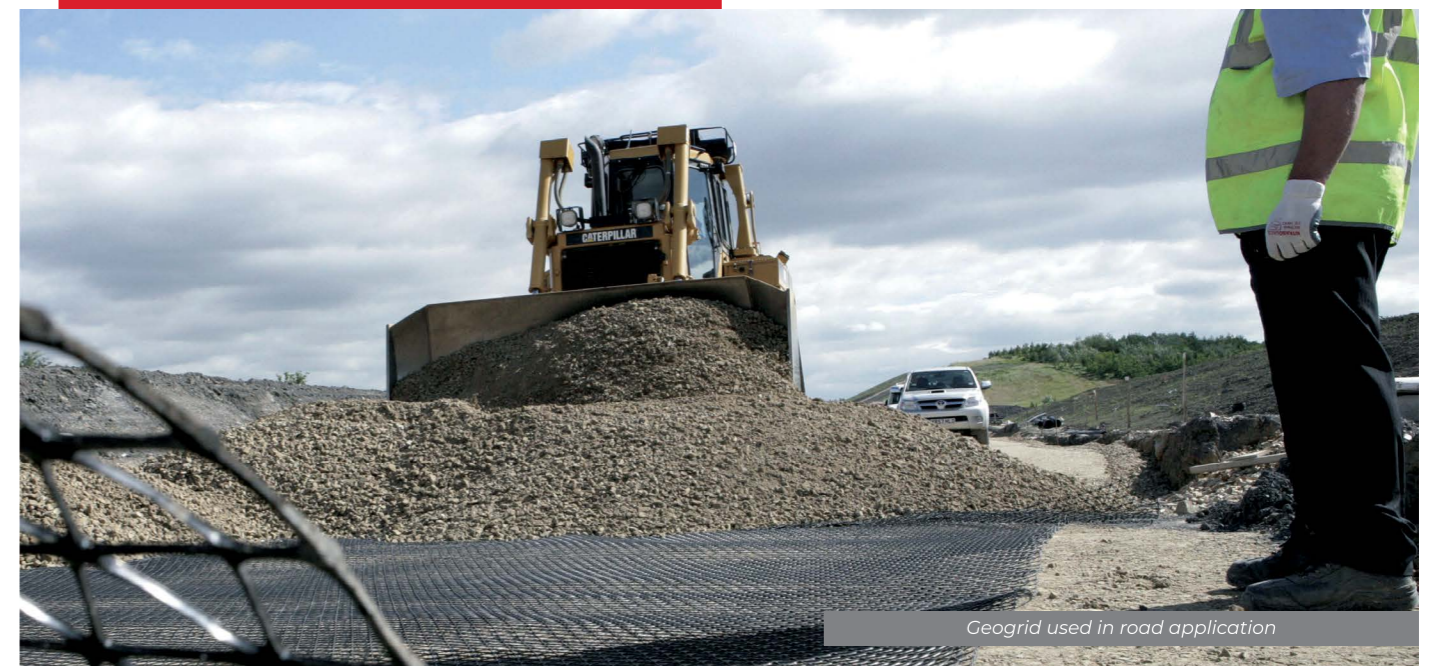
Since 1980, several hundred million square metres of Tensar geogrid have been successfully incorporated into a wide range of sites under diverse working and climatic conditions.

SUBGRADE STABILISATION

Improving the structural performance of unbound roads and Platforms with a tensar® mechanically stabilised layer (msl)



Particle interlock and the effect of confinement enhances compaction over weak ground and increases the stiffness of the aggregate layer above.

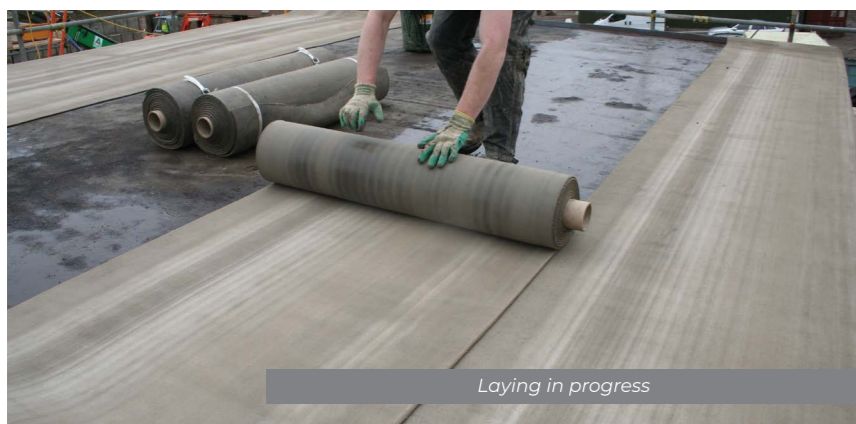
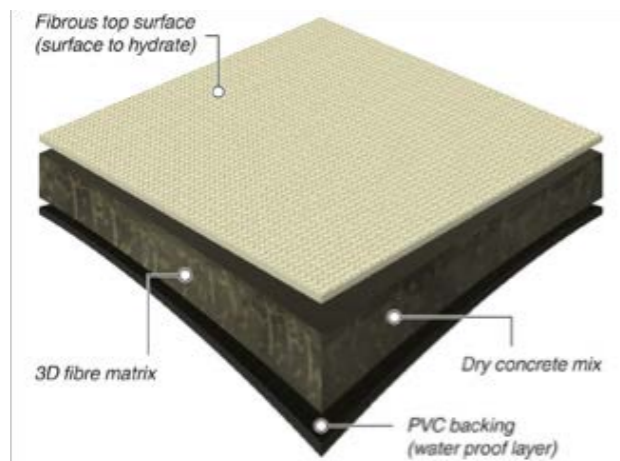


CONCRETE CANVAS

Concrete Canvas® is part of a revolutionary new class of construction materials called Geosynthetic Cementitious Composite Mats (GCCMs).

It is a flexible, concrete filled geosynthetic, that hardens on hydration to form a thin, durable, water proof and fire-resistant concrete layer. Essentially, it's concrete on a roll. Concrete Canvas® GCCM (CC) allows concrete construction without the need for plant or mixing equipment: just add water.

CC consists of a 3-dimensional fibre matrix containing a specially formulated dry concrete mix. A PVC backing on one surface of the CC ensures the material has excellent impermeability. CC can be hydrated either by spraying or by being fully immersed in water. Once set, the fibres reinforce the concrete, preventing crack propagation and providing a safe plastic failure mode. Concrete Canvas® GCCM is available in 3 thicknesses: CC5, CC8 and CC13, which are 5, 8 and 13mm thick respectively.



RAPID INSTALL

CC can be laid at a rate of 200m²/hour, up to 10 times faster than conventional concrete solutions.

EASY TO USE

The concrete is pre-mixed so there is no need for mixing, measuring or compacting. CC is also available in man portable rolls for applications with limited access.

LOWER PROJECT COSTS

The speed and ease of installation mean Concrete Canvas® GCCM is more cost-effective than conventional concrete, with less logistical complexity.

ECO-FRIENDLY

CC is a low mass, low carbon technology which uses up to 95% less material than conventional concrete for many applications.

GEOSYNTHETIC CLAY LINER

GEOTAG Geosynthetic Clay Liner (GCL) is a high performance geocomposite consisting of sodium bentonite clay, sandwiched between, supported and encapsulated by two geotextile held together by mechanical bonding.

Fibres from the non-woven geotextile are mechanically bonded through the layer of bentonite and incorporated into the other geotextile (either a woven or non-woven). This process results in a strong mechanical bond between the fabrics. These are made into large rolls for easy installation.

Sodium bentonite clay is a natural occurring clay mineral that swells when wet and hydrated. When this hydration occurs under confinement, the bentonite swells to form a low permeability clay layer that acts as a hydraulic barrier to fluids.



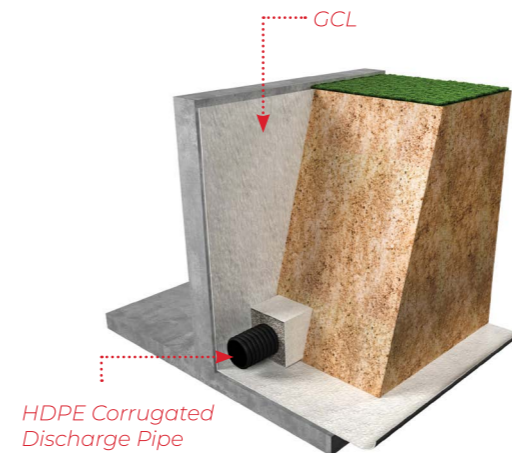
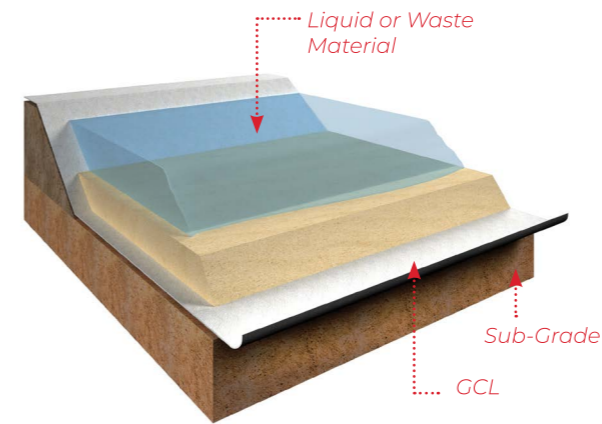
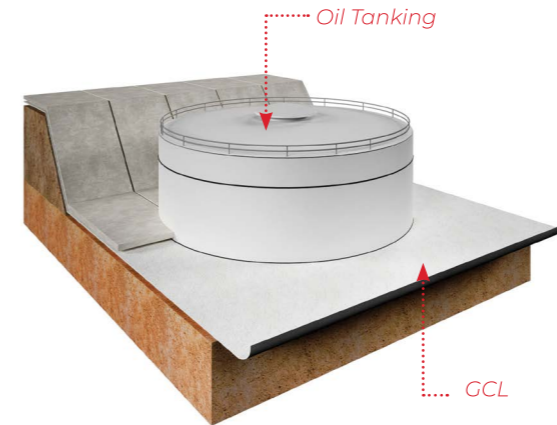
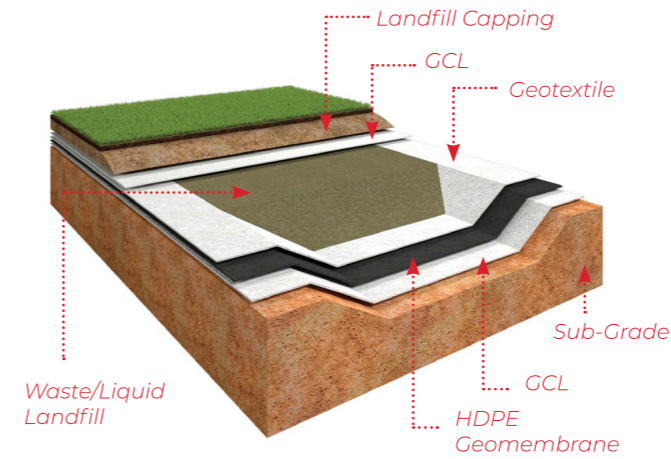
Sludge containment application



Landfill application



Laying in progress



MUNICIPAL WASTE MANAGEMENT

For waste containment, the most effective liners are comprised of geomembrane/low permeability soil composites. The primary benefit of geomembrane/clay composite is derived from intimate contact of two layers. Geotag Geosynthetic clay liners (GCLs) are installed below the geomembrane to form a composite barrier system with superior hydraulic barrier performance.

CAPPING OF LANDFILL

GCLs are ideally suited for use in landfill caps and closures. Used alone or in conjunction with a linear low-density polyethylene (LLDPE) geomembrane it provides excellent resistance to the deleterious effects of differential settlements and seasonal temperature fluctuations.

INDUSTRIAL WASTE

Waste from factories, construction sites, manufacturing plants and other industries require specialized waste containment solution. Our broad range of geomembranes and GCLs will support you in developing cost-effective long-term containment solutions.

SPILL CONTAINMENT

Geotag Geosynthetic Clay Liners provide an effective temporary barrier for spills from aboveground tank storage of petroleum products or other potential contaminants allowing total and rapid recovery of spilled materials.

POND/ RESERVOIR LINING

Geotag Geosynthetic Clay Liners can be utilized as stand alone liners for ponds containing potable or storm water (not subject to toxic containment constraints), artificial lakes, mining compounds, earth dams and canal lining systems.

WATER-PROOF OF STRUCTURES

Geotag Geosynthetic Clay Liners can be utilized as stand alone liners for ponds containing potable or storm water (not subject to toxic containment constraints), artificial lakes, mining compounds, earth dams and canal lining systems.

GEO-CONTAINER

GEOTAG geo-container is a highly permeable geotextile container woven in a special structure with tenacity.

Polypropylene or Polyester yarns which is seamed into a long cylindrical configuration. Geotag geo-container is a high functional geotextile tube which allows to form necessary structures or to reuse filled materials after dewatering dredged materials and sludge from water treatment facilities.

Geo-container is also applied for civil engineering, environmental and hydraulic industries including coastal erosion protection, beach & wetland restoration, breakwaters, ground reinforcement of civil engineering structures such as reclaimed land, artificial islands, formation of temporary roads, cofferdams, dewatering of dredged materials and sludge. Taking advantage of its structural flexibility, Geotag geo-container readily adapts for various landforms, field conditions and sewerage treatment plants. The excellent physical and seam strengths allow geo-container to build stable structures which are durable and safe.

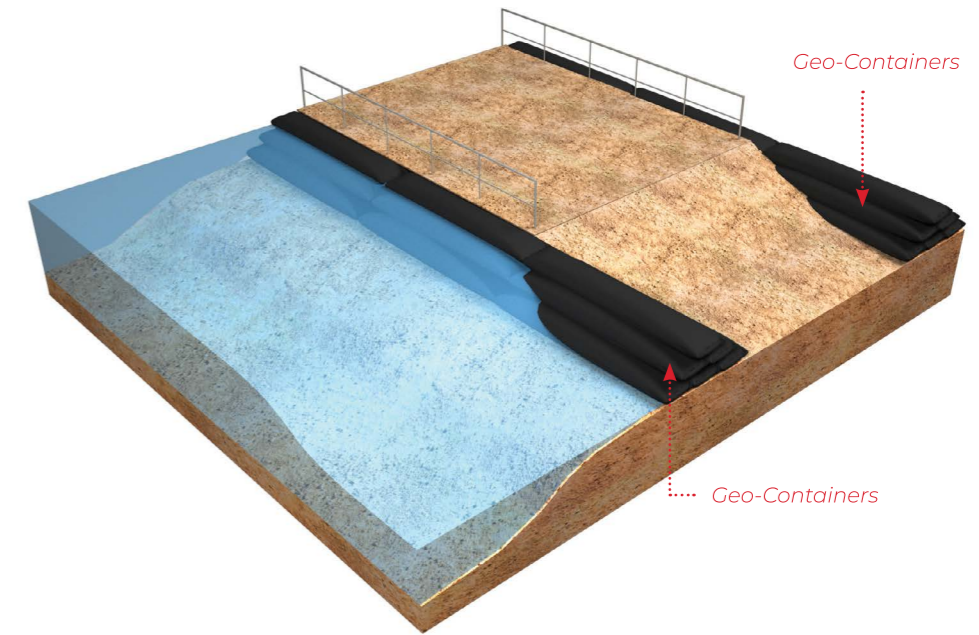


APPLICATIONS OF GEO-CONTAINER

- Coastline Erosion Control
- Marine & Underwater Structures
- Dewatering of Sludge & Dredged Materials
- Temporary Roads, Cofferdams
- Foundation Reinforcement
- Wetland Creation & Vegetation



Showing filled geo-container



Geo-containers used in shore protection

GEO-BAG

In Landscaping & Civil Engineering works, large quantities of various construction materials are required to build structures such as planter wall, revetment, terracing ground, bund wall, gravity wall, natural drain and earth retaining walls.

These materials may sometimes not immediately available and can cause problems when maintenance repairs are urgently required. Highly permeable GEOTAG GEOBAG is the alternate economical solution to the long term performance of these structures. GEOTAG GEOBAG, made from durable UV treated geotextile material that offer a low cost solution, enabling most in-situ materials to be used as bulk infill. Besides providing an innovative, cost effective, fast and reliable construction method that has proven suitable for use in even the most difficult access area.



Geo-bag used in river diversion



Used in construction of vertical slope/wall



Used in river erosion protection

AREA OF APPLICATIONS

- Coastal Protection Works
- Retaining Earth Structure
- Footpath
- Slope Protection
- Road Construction
- Landscaping Works
- Waste Disposal
- Sludge & Dewatering
- Temporary Wall
- Golf Course
- Vegetated Green Wall



Used in retaining earth construction

ELCOROCK

The ELCOROCK shoreline protection system has been proven through over 20 years of use in harsh coastal environments and is a cost-effective alternative to traditional coastal erosion protection systems made from concrete, rock armour, steel or timber.

Elcorock is a geotextile sand filled container used in harsh coastal environments for controlling shoreline erosion utilizing several different proven techniques.

Structures such as breakwaters, revetments, groynes, artificial reefs and land reclamation projects have successfully been constructed using the Elcorock system.

KEY FEATURES & BENEFITS OF ELCOROCK

DURABILITY

Elcorock is proven through over 20 years of in-situ installation in Australia and around the World under some of the highest UV concentration levels.

FLEXIBLE STRUCTURE

The nature of Elcorock creates a durable, pliable product.

PUBLIC AMENITY

Unlike rock or concrete structures, Elcorock is a soft engineered solution suitable for public sites.

ENVIRONMENTALLY SENSITIVE

Delivery of Elcorock to site has a dramatically smaller carbon footprint than hard structure alternatives.

IN-HOUSE MANUFACTURED

Aside from prompt supply timelines, we can tailor make Elcorock containers to suit specific conditions including size and various material grades.

TESTING & TRACEABILITY

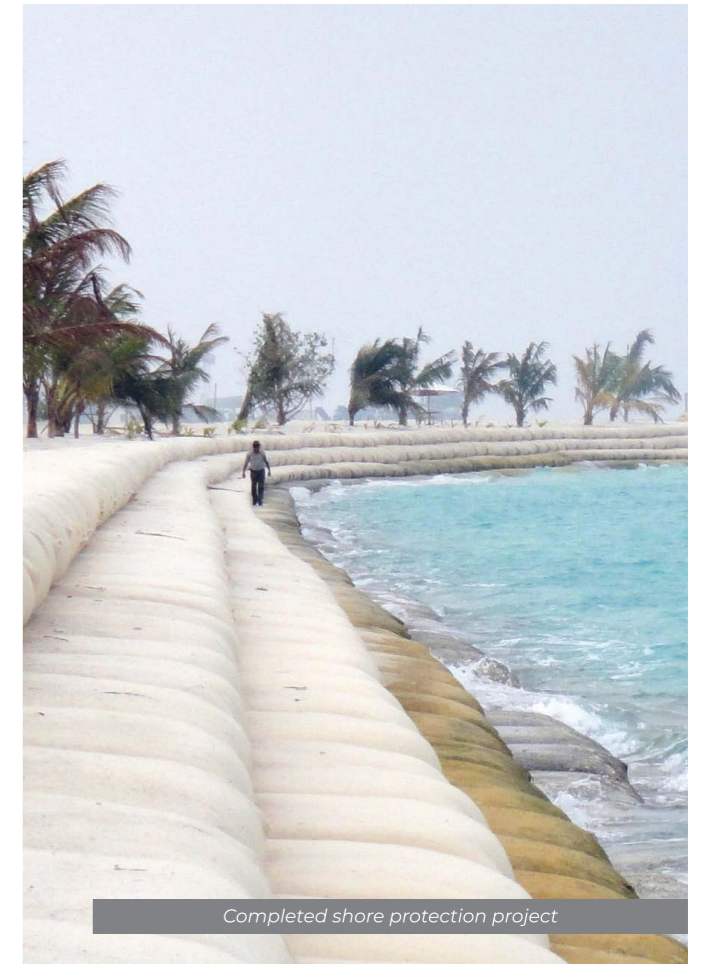
Elcorock range of products are thoroughly tested and tracked to ensure our product exceeds our standard specifications.

INSTALLATION

We provide comprehensive installation guidance and support to ensure a high level and quality project.



Showing ElcoRock used in local shore protection



Completed shore protection project



Used in Shore erosion protection



Aerial view of ElcoRock construction in progress

WALL TAG PTE LTD

52 Genting Lane #01-01, Ruby Land Complex Block 1
Singapore 349560

Tel : (65) 6398 0308

Fax : (65) 6398 0309

Email : enquiries@walltag.com.sg

www.walltag.com