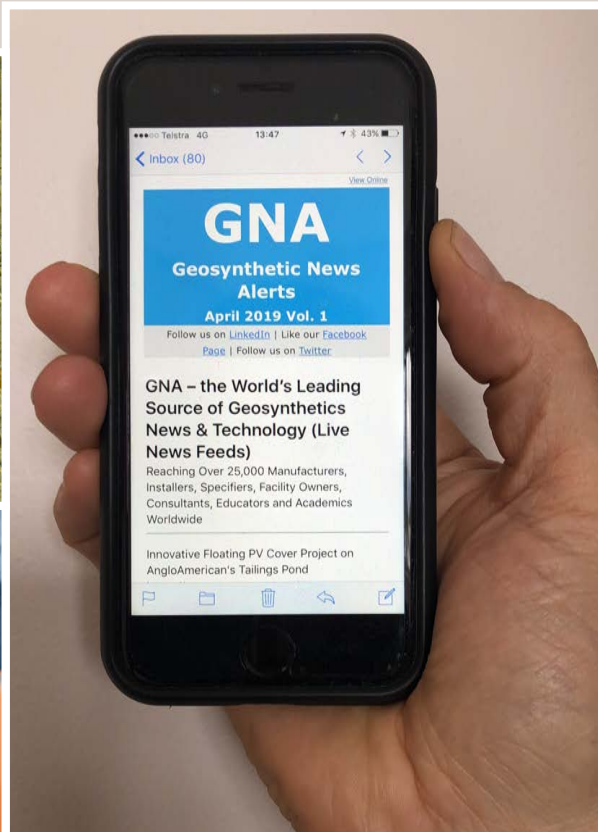
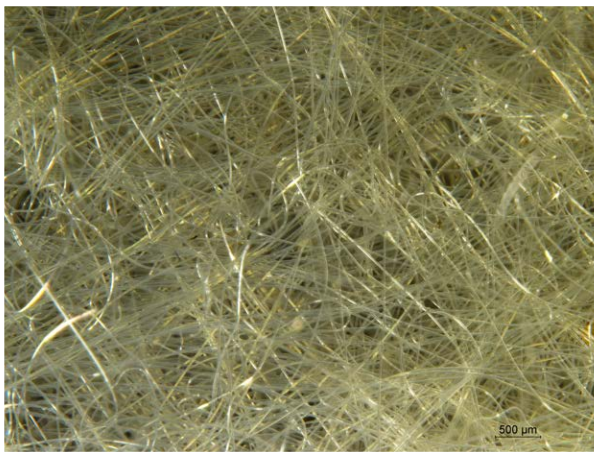


# Geosynthetics Testing



**WE KNOW POLYMERS - WE KNOW TESTING**

ExcelPlas performs a comprehensive range of geosynthetics testing covering Geomembranes, Geotextiles, Geogrids, Geonets, GCLs and Geocomposites. ExcelPlas is one of only two leading labs in Australia specializing in this area and test the following geosynthetics:

#### Geomembranes

A Geomembrane is a very low permeability synthetic membrane liner or barrier used as to control fluid (or gas) movement. They are widely used for containment and as barriers for environmental protection. There is an extensive range of geomembranes on the market and they include HDPE, LLDPE, PVC, EIA, EPDM and bituminous (BGM) amongst others. Each type has their own unique characteristics and specific test requirements.

#### Geotextiles

Geotextiles are permeable textiles or fabrics, which, when used in association with soil, have the ability to separate, filter, reinforce, protect, or drain. Typically made from polypropylene or polyester, geotextile fabrics come in three basic forms: woven, needle punched, or heat bonded.

#### Geogrids

Geogrids are used to reinforce soils and similar materials. Geogrids are commonly used to reinforce retaining walls, as well as subbases or subsoils below roads or structures. Geogrids are typically made of polyester, polyethylene or polypropylene. They may be woven or knitted from yarns, heat-welded from strips of material, or produced by punching a regular pattern of holes in sheets of material, then stretched into a grid.

#### Drainage Geocomposites

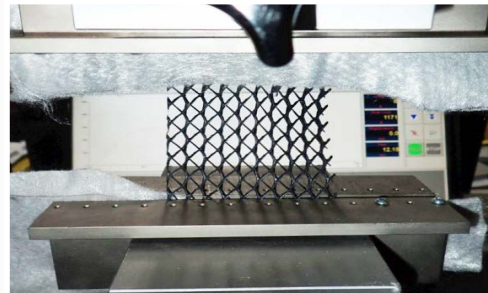
Drainage geocomposites are rapidly replacing gravel drainage layers in containment facilities such as landfills. These relatively thin materials are required to provide similar or better performance than thick mineral layers. Comprehensive testing is carried out to prove their equivalence to thick gravel drainage layers.

#### Geosynthetic Clay Liners (GCLs)

ExcelPlas is one of the only laboratories in Australia to provide XRD to certify the quality of the clay used in GCLs. Since clay is a natural material of varying composition testing the Montmorillonite content is critically important from batch to batch.

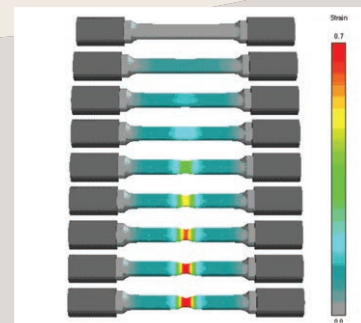
#### Mechanical Tests for Geosynthetics

- Tensile Strength and Elongation (and weld testing)
- Wide Width Tensile Strength (standard & high strength)
- Strip Tensile Strength
- Grab Tensile Strength
- Trapezoidal Tear Strength
- Compressive Strength
- CBR Burst Strength
- Puncture Resistance



#### Durability Testing

- S-OIT (by DSC)
- HP-OIT (by DSC)
- UV Resistance
- Heat Ageing Resistance
- Stress Cracking Resistance
- Large Scale Performance Tests
- Hydrostatic Puncture
- Multiaxial Burst
- Cyclic Fatigue Testing (Flex Testing)



ExcelPlas performs more than 120 standard geosynthetic tests in accordance with relevant ASTM, GRI and ISO standards. We have extensive experience with all types of geosynthetics – from geomembranes (HDPE, LLDPE, fPP), geotextiles to geonets, geogrids, geocomposites and and geosynthetic clay liners (GCLs). As a Nationally Accredited Testing Laboratory, our technicians, equipment and quality system are monitored regularly for proficiency and compliance assuring that you can count on quality results every time.

ExcelPlas reaches and informs its extensive Geosynthetic customer base weekly using its proprietary Digital Marketing Platform GNA – Geosynthetic News Alerts.

**contact: [www.excelplas.com](http://www.excelplas.com)**



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