RAPID WATER, GAS & LEACHATE DRAINAGE

FLOWNET® & TRINET® DRAINAGE GEOCOMPOSITE

Flownet & Trinet Drainage Geocomposite

Flownet® and Trinet® Drainage Geocomposites are an economical and effective water, gas and leachate drainage system for use in landfill steep slopes, landfill capping systems, tunnels, bridge abutments and behind vertical structures. They offer engineers a proven alternative to traditional thick gravel drainage layers.

Economical alternative to traditional granular drainage layers

The drainage nets are made from lightweight high-density polyethylene (HDPE) and designed with a thin composite construction. Biplanar Drainage Nets (Flownet) and Triplanar Drainage Nets (Trinet) are separately laminated with non-woven geotextile to create Flownet and Trinet Geocomposites that meet different site-specific requirements. Drainage net bonded to a non-woven geotextile provides the optimum combination of high through-flow capacity for rapid drainage whilst simultaneously preventing fine soil particles from migrating into the drainage core.

Why choose Flownet & Trinet?

The Geofabrics Geosynthetic Innovation, Research & Development (GRID) laboratory offers a service to modify the Flownet and Trinet Drainage Geocomposites depending on site-specific requirements. Preliminary or complex designs can be proven prior to final design through the GRID to ensure economic and efficient geocomposites with optimised drainage capacities. Additionally, compatibility testing at the GRID ensures the site-specific liquor or waste drains quickly within the drainage system.

Flownet & Trinet Drainage Geocomposite are available in roll form, with a minimum width of 3.7m and a minimum length of 50m - both ranges are available with single sided geotextile or double sided geotextile. The standard option is for a lighter grade of non-woven geotextile to be attached to the geocomposite drainage net, an if required heavier grades of nonwoven geotextile can be attached for specialist applications.

Flownet & Trinet provide:

- High through-flow capacity for rapid drainage while simultaneously preventing fine soil particles from migrating into the drainage core
- An economical alternative to traditional granular drainage layers due to better optimisation of landfill space and faster installation of lightweight composite
- Durability with the capacity to withstand high loads exceeding 450kPa

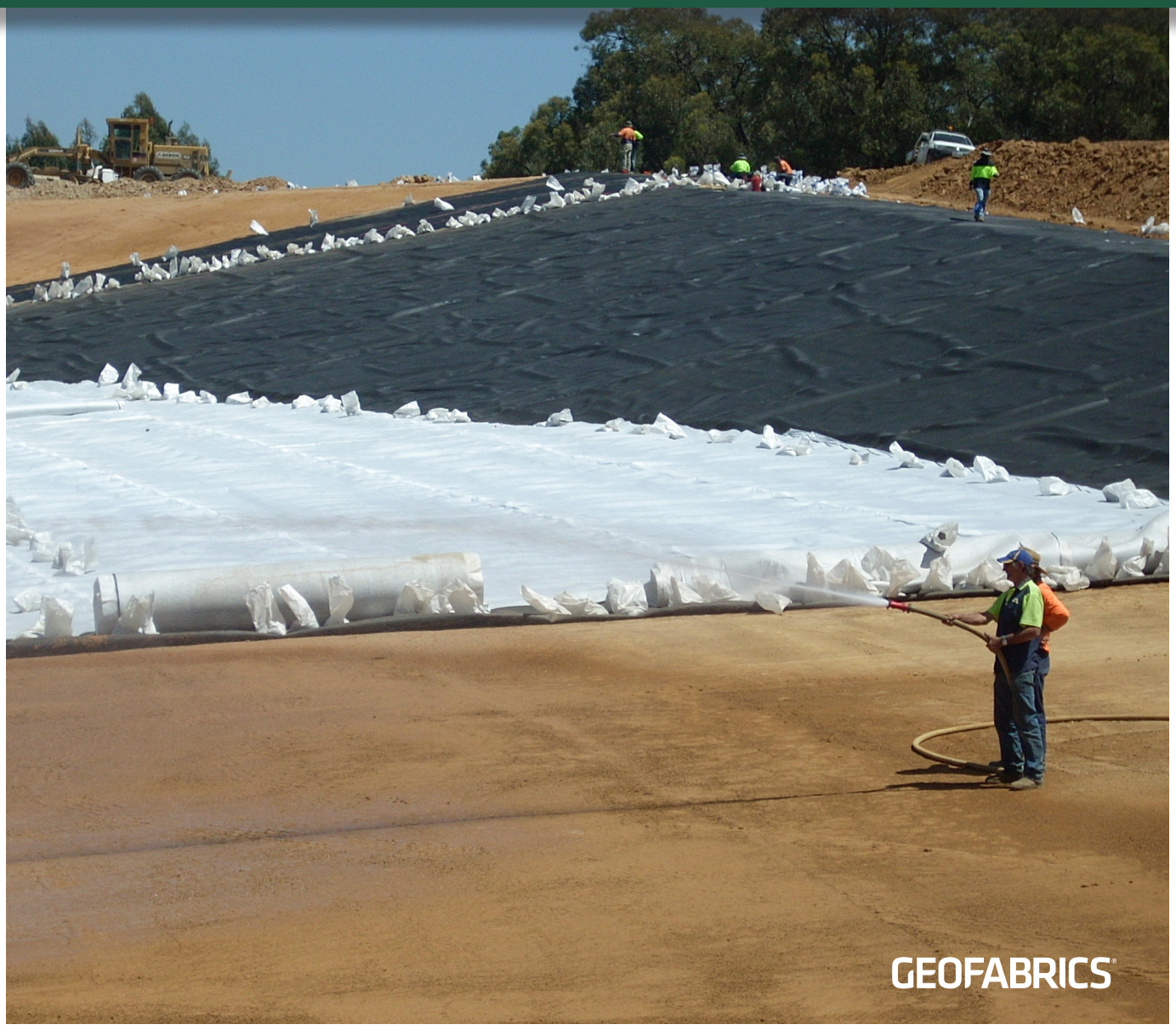
FLOWNET & TRINET RANGE

Flownet & Trinet Grade	Product Description	Dimensions
M5 A14 x2	Biplanar drainage net and geotextile laminated to both sides	3.7w x 55m
T5 A24 x1	Triplanar drainage net and geotextile laminated to one side	3.7w x 55m
T7 A19 x2	Triplanar drainage net and geotextile laminated to both sides	3.7w x 42m

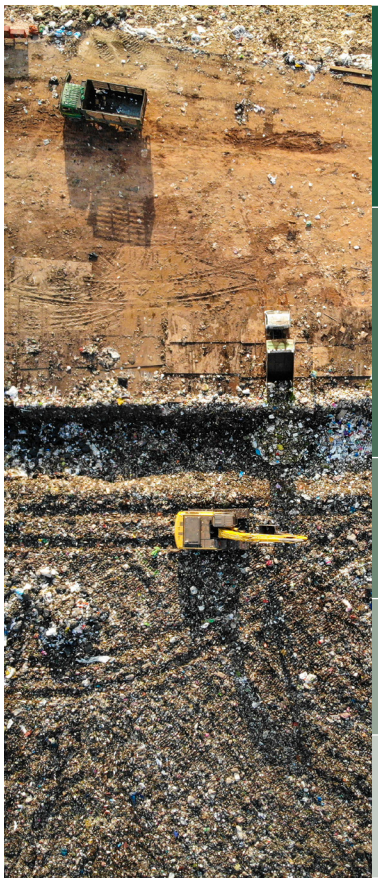
Note: These are the three most commonly used geocomposites. We can add or remove any grade of Bidim geotextile to the net but these are the three most common geocomposites.

Drainage net bonded to a non-woven geotextile provides the optimum combination of high through-flow capacity for rapid drainage.

EXTREMELY DURABLE & CAN WITHSTAND HIGH LOADS EXCEEDING 450KPA



LANDFILL APPLICATIONS



LANDFILL CAPS	Flownet & Trinet Drainage Geocomposite: • Used to replace thick gravel drainage layers when capping landfills or waste containment structures • Can be easily and quickly installed - allowing rapid drainage of the liquids, gases and leachate associated with waste containment structures
LANDFILL BASES & SIDE SLOPES	Flownet & Trinet Drainage Geocomposites: • Ideally suited to the bases and side slopes of deep waste structures where high vertical loads are experienced and the construction of thick gravel drainage layers is difficult and expensive • Rolled out easily, allowing a volume saving, high flow drainage layer with a large surface area to be created quickly and efficiently • Protect structures from damage traditionally caused by granular backfill
TAILINGS DAMS	Flownet & Trinet Drainage Geocomposites: • Applied under a primary liner to capture and identify leaks. Net can be used in lieu of 300mm drainage aggregate where it is difficult to source and expensive
RETAINING WALLS	Flownet Drainage Geocomposite: • Installed behind retaining walls to replace traditional vertical gravel drains - the drainage net dramatically reduces the hydrostatic pressure on the wall
WATER STORAGE	Flownet Drainage Geocomposite: • Used underneath primary liners (HDPE, LLDPE etc.) to detect and channel leaks within water storages. Can be used in lieu of 300mm of drainage aggregate

ADDITIONAL BENEFITS OF WORKING WITH GEOFABRICS

REDUCED RISK	• Compatibility testing at the GRID ensures the site-specific liquor or gas drains quickly within the drainage system • Reduced safety risks on construction sites as the drainage nets are light weight and simple to install, as well as minimising the damage to adjacent structures or materials, such as plastic liners • Strict Manufacturing Quality Assurance provides a higher level of consistency in the drainage layer
ENHANCED PERFORMANCE AND RELIABILITY	• Higher drainage capacities are achieved through design of the drainage system - preliminary or complex designs can be proven prior to final design through the GRID to ensure an economic and efficient design • High interface shear strength with either surrounding soils or adjacent geosynthetic materials, including Geosynthetic Clay Liners (GCL) and/or polyethylene (such as HDPE or LDPE) geomembrane liners • Proven durability in a wide range of chemical environments
COST BENEFITS	• Simpler installation processes, reducing the time required to construct the drainage layer system • Savings on freight and materials, as well as increasing the air space inside the waste containment structure
TECHNICAL EVALUATION AND INSTALLATION SUPPORT	• Supported by our GRID team who have the capability to carry out a comprehensive series of mechanical and hydraulic testing to simulate field conditions • Supported by technical assistance from our team of Geofabrics engineers

A PROVEN ALTERNATIVE TO TRADITIONAL THICK GRAVEL DRAINAGE LAYERS

The high flow rate of geocomposite drainage nets allow rapid drainage and reduces the hydraulic head on liner systems.

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