

TENCATE
Polyfelt[®]

TENCATE
Miragrid[®]

TENCATE
Mirafi[®]

TENCATE
Geotube[®]

GEOSYNTHETICS PRODUCT OVERVIEW

Geosynthetics

Aerospace Composites

Armour Composites

Protective & Outdoor Fabrics

Industrial Fabrics

Synthetic Grass

 **TENCATE**
materials that make a difference

Why TenCate Geosynthetics?

TenCate offers a full range of products and solutions designed to cost effectively solve a wide variety of common civil and environmental engineering problems. Fully supported by experienced geosynthetic specialists and a worldwide distribution network, TenCate's products make a difference in a multitude of applications.

PRODUCTS AND APPLICATIONS		Nonwovens			Wovens				High Strength		Paving		Environmental				Special Products						
		Polyfelt TS	Polyfelt Heavy Duty	Polyfelt F	Mirafi X	Mirafi PP *	Mirafi HP *	Mirafi PET	Mirafi FW **	Polyfelt WX	Polyfelt PEC ***	Miragrid GX	Miragrid Microgrid	Polyfelt PGM	Polyfelt PGM-G	Polyfelt DC	Polymat EM	Enviromat	Envirofelt CO	Envirocell M / MP	TopTex	GeoDetect	Geotube® / Geocontainer
SUBGRADE STABILIZATION & TRANSPORTATION	Separation & soft soil stabilization	✓			✓	✓	✓			✓													
	Subsoil drainage	✓						✓															
	Paved, unpaved, plantation & access road	✓			✓	✓	✓			✓													
	Land reclamation	✓				✓	✓			✓													
	Railways	✓	✓			✓	✓			✓													
	Storage & container yard	✓				✓	✓		✓	✓	✓	✓	✓	✓									
	Tunnel lining & waterproofing		✓																				
HYDRAULIC FILTRATION	Riverbank revetment protection			✓				✓															
	Coastal revetment protection			✓				✓															✓
	Canal & water channel			✓				✓															
	Earth dams	✓		✓																			
	Geobag			✓		✓	✓																
SOIL REINFORCEMENT	Wall & slope reinforcement								✓	✓	✓												
	Embankment						✓	✓	✓	✓	✓												
	Embankment over piles						✓	✓	✓	✓	✓												
	Bridge approach						✓	✓	✓	✓	✓												
	Road subbase / paving blocks										✓	✓											
	Filter behind gabions	✓																					
	Cut-off drain / interceptor drain	✓													✓								
	Wall / slope facing																						
	Foundation platform																						
	Soil structure monitoring																						✓
PAVEMENT REHABILITATION	Airport runway & taxiway												✓										
	Highway & motorway												✓										
	Asphalt road rehabilitation												✓										
	Concrete road												✓										
MARINE STRUCTURES	Breakwater / groyne					✓		✓	✓														✓
	Seawall					✓		✓	✓														✓
	Dredged reclamations			✓		✓	✓	✓	✓														✓
	Silt curtain			✓			✓	✓															
MINING	Mine dump walls						✓	✓	✓	✓													
	Mining roof support									✓*													
	Mine tailing dams	✓	✓	✓																			
ENVIRONMENTAL & OTHER APPLICATIONS	Waste landfill	✓	✓					✓						✓		✓							
	Industrial waste treatment																						✓
	Pond lining & containment																✓						
	Side slope erosion control															✓		✓	✓				
	Tank farm																✓						
	Gas barrier																✓						
	Basement / roof waterproofing		✓											✓		✓							
	Landscaping	✓			✓										✓				✓				
	Sport fields	✓													✓								
	Agriculture																					✓	

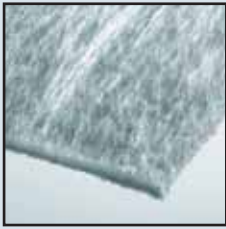
* Suitable when high construction stress is anticipated

*** Suitable for poor drainage soils

** Suitable for filtration of silty sand

✓* Special fire retardant geogrids

Subgrade Stabilization and Transportation

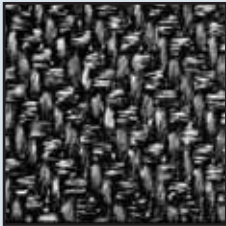


Polyfelt® TS Non Woven Geotextiles

Manufactured from continuous polypropylene filaments, UV stabilized to prevent degradation when exposed to sunlight in tropical conditions. Robust and durable, with optimum permeability and soil filtration characteristics.

Applied as a subsoil filter and to separate and stabilize fill over soft wet subgrades.

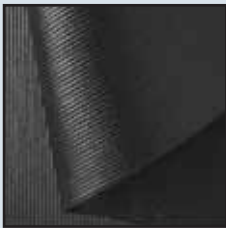
- Pave and unpaved roads and earth platforms
- Land reclamations
- Storage and container yards
- Railway formations
- Subsoil and cut off drains
- Landscaping and building works



Mirafi® HP / PP Woven Geotextiles

High performance woven geotextiles manufactured from robust polypropylene yarns. Commonly applied in subgrade stabilization and reinforcement of earth platforms over very soft and unstable soils.

- Pave and unpaved road and railway platforms
- Container yards
- Airport taxiways and runways
- Reclaimed land

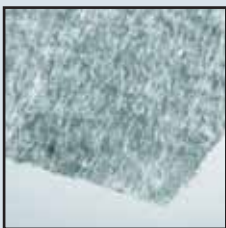


Mirafi® X Woven Geotextiles

Manufactured from polypropylene tapes woven into a homogeneous sheet, and commonly applied to stabilize low impact earth fill over medium soft soil subgrades.

- Paved and unpaved roads
- Agricultural roads
- Landscaping and building works

Pavement Rehabilitation



Polyfelt® PGM Paving Fabric

Specifically designed to offset reflective cracking in road pavements. Optimum bitumen retention capability. Readily conforms to uneven milled road surfaces. Significantly extends the life of road pavements.

- Stress relieving interlayer between old and new asphalt pavements
- Airport taxiway and holding areas
- Chip sealed roads
- Storage yards

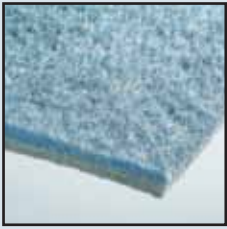


Polyfelt® PGM-G Paving Reinforcement

Comprising glass reinforcement attached to paving fabric for reinforcement of heavily trafficked and stressed pavements. Reinforces and seals asphalt overlays:

- Heavily stressed pavements
- Airport runway and taxi ways
- Overlays over cracked or jointed concrete
- Bridge decks
- High load / heavy load for pavement and container yard

Hydraulic Filtration



Polyfelt® F Filtration Geotextiles

Manufactured from multilayers of UV stabilized polypropylene filaments needed to form a tough homogeneous sheet specifically designed to provide optimum filtration of fine silt soils and withstand robust installation and hydraulic stress.

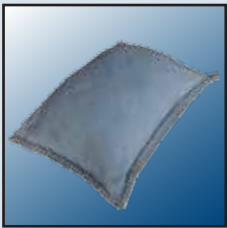
- Riverbank and coastal revetment filters
- Speciality Geobags for scour protection of embankment toes and bridge piers
- Filters under riprap and spillways of earth dams and reservoirs
- Internal drains in earth and rockfill dams
- Internal filters in mine tailings dams



Mirafi® FW Woven Geotextiles

Specifically designed for applications requiring high tensile strength, high geotextile permeability and good soil retention characteristics.

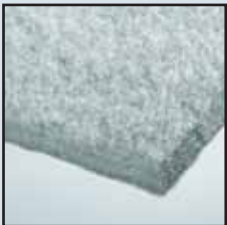
- Coastal and riverbank revetments
- Landfill separators and capping
- Saturated sands
- Pipelines



Woven & Nonwoven Geobags

Manufactured from high quality woven and nonwoven geotextiles for filling with soil and sand as a flexible synthetic replacement of rock. Can be structured to interlock by using specially designed combinations of different bag sizes.

- Riverbank revetments
- Stabilization of riverbanks subject to toe scour and erosion
- Beach erosion protection
- Construction of groynes and bund walls
- Temporary flood protection

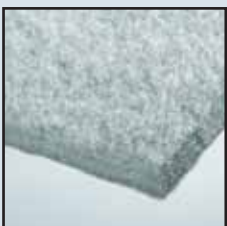


Silt Curtain & Barriers

Manufactured from nonwoven and woven geotextiles with the objective of preventing silt pollution of water adjacent to construction sites. Optimum retention characteristics. Easy to fabricate and install.

- Marine silt curtains
- Silt fences
- Garbage collection curtains

Tunnel Lining

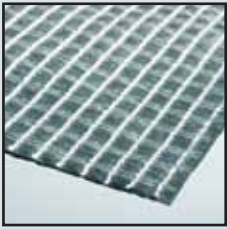


Polyfelt® TS Heavy Duty Geotextiles

Manufactured from mechanically bonded continuous filament nonwoven made from 100% UV-stabilized polypropylene for maximum dynamic and static puncture protection and drainage.

- Protection of geomembrane tunnel liners
- Drainage of water seepage

Soil Reinforcement



Polyfelt® PEC Reinforcing Composite

Consisting of high strength polyester yarns and continuous filament nonwoven geotextiles designed to reinforce and drain fine grained soils. High strength reinforcement properties with excellent in-plane drainage capability.

- Wall and slope reinforcement for poor draining soils
- Reinforcement of marginal soils
- Slope repair using existing soil backfill
- Reinforcement of block wall structures with marginal soil backfill
- Basal reinforcement of embankments on soft foundations



Miragrid® GX Geogrids

High quality, high tenacity polymer coated geogrid manufactured from high strength polyester yarns. Excellent creep and construction damage resistance.

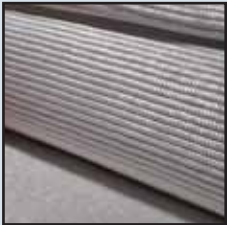
- Wall and slope reinforcement
- Road subbase reinforcement
- Slope sliding repair
- Basal reinforcement of high embankments
- Basal reinforcement over piles
- Basal reinforcement for break waters



Miragrid® Microgrid

Microgrid is a high tenacity grid with a mesh size designed to reinforce fine grained soils and sands.

- Wall and slope reinforcement
- Road subbase reinforcement
- Reinforcement under paving blocks
- Basal reinforcement of embankments
- Basal reinforcement over piles



Polyfelt® WX / Mirafi® PET Geotextile

Manufactured from high quality and high strength polyester with long term high strength reinforcement properties.

- Basal reinforcement of high embankments
- Basal reinforcement over piles
- Basal reinforcement of breakwater/groynes and marine protection structures

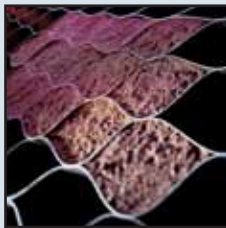


GeoDetect®

GeoDetect® is an instrumentation reinforcement geotextile with build-in strain measurement sensors.

- Reinforced soil walls
- Potentially unstable slopes or cuttings
- Railway tracks over sink holes
- Basal embankment reinforcement and measurement of settlement
- Piled embankment monitoring

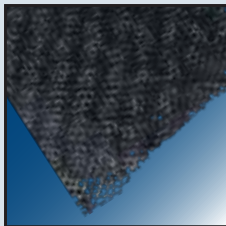
Environmental & Other Applications



Envirocell® Geocell

Comprising a 3-dimensional cellular soil confining structure, designed to optimize the strength of restrained soil and sand. Easy to lay and install.

- Soil erosion protection of steep slopes
- Above water level riverbank protection
- Water runoff channels, spillways, canal linings
- Improve bearing capacity of foundation platforms
- Facings of geosynthetic reinforced soil slopes and vertical structures



Polymat Erosion Protection Mat

Comprising a 3-dimensional matrix of durable HDPE fibres. Designed to reinforce and restrain soil on steep slopes. Enhances root growth and offsets the effects of stormwater runoff down steep slopes.

- Soil erosion protection of steep slopes
- Above water level riverbank protection
- Enhanced vegetation growth over arid substrates
- General landscaping



Envirofelt CO Turf Reinforcement Mat (TRM)

Envirofelt CO is a portfolio erosion protection mats designed to prevent erosion of exposed slopes, stimulate grass and vegetation growth and enhance the stability of grass roots subject to water scour.

- Above water level protection of riverbanks and water channels
- Steep slopes
- General protection of erodible soils in arid conditions



TopTex® Agricultural Fabric

TopTex® has a wide variety of agricultural applications where temporary coverage of produce is required.

- Protection of silage from adverse weather
- Stimulates temperature and microbe growth in composting applications
- Winter protection of plants and straw etc
- Temporary coverage of bare erodible slopes

Marine Structures



Geotube®

Manufactured from high tenacity polypropylene woven fabrics designed to withstand high pressure pumping.

- Dewatering of reclaimed sand and silt
- Seawalls (above water structures) for land reclamation / breakwater construction
- Artificial island
- Beach erosion protection
- Scour protection of bridge piers

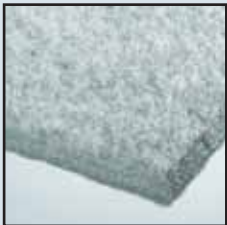


Geocontainers

Fabricated large containers manufactured from high tenacity polypropylene woven geotextiles.

- Containment of dredged sand and silt
- Seawalls (under water structures) for land reclamation / breakwater construction
- Containment and disposal of building waste
- Construction of artificial reefs

Containment and Drainage



Polyfelt® TS Heavy Duty Geotextiles

Manufactured from mechanically bonded continuous filament nonwoven made from 100% UV-stabilized polypropylene for maximum dynamic and static puncture protection and drainage.

- Protection of synthetic membrane linings
- Leachate drainage
- Gas transmission media in landfill caps and closures



Enviromat® Geosynthetic Clay Liner (GCL)

Manufactured from quality polypropylene geotextiles and premium grade sodium bentonite, needle-punched together using high strength fibres to ensure effective sealing and long term shear strength.

- Water containment and pond linings
- Liquid barrier for landfills
- Tank farms
- Landscaped ponds



Polyfelt® DC

Polyfelt® DC is a geocomposite consisting of HDPE geonet and a nonwoven geotextile filter on one or both sides.

- Landfill leachate drains
- Subsoil drains
- Drainage for roof gardens
- Road base drains
- Drainage behind retaining walls

TenCate develops and produces quality products designed to reduce cost and increase performance by working closely with our customers.

Geosynthetics from TenCate definitely make a difference.

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