

## Mirafi® PET High-Strength Woven Polyester Geotextiles for Soil Reinforcement Applications

TenCate™ develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

The Difference Mirafi® PET High-Strength Geotextiles Make:

- **Reinforcement Strength.** Higher ultimate tensile strength properties per ASTM D 4595 than any comparable reinforcement product.
- **Creep Resistance.** Polyester fibers provide excellent creep resistance which results in higher long term design strengths per GRI-GT7 requirements.
- **Soil Interaction.** Excellent soil confinement resulting in greater load distribution.
- **Roll Sizes.** Mirafi® PET geotextiles come in multiple roll sizes to fit your project requirements. Further, panels can be sewn together, in the factory or field, providing cross-roll direction strength to facilitate installation.
- **Cost.** Woven reinforcement geotextiles provide cost effective strengths for reinforced soil structures.

### APPLICATIONS

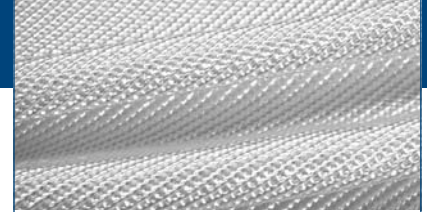
Because of their flexibility and versatility, Mirafi® PET geotextiles are used in a variety of soil reinforcement applications, including embankments on soft foundations, retaining walls, and steepened slopes. Environmental applications include liner support, voids bridging, and reinforcement over soft, hazardous pond closures. For any application where long term design of earth reinforcement structures are involved, Mirafi® PET Woven Polyester Geotextiles are logical choices.

### INSTALLATION GUIDELINES\*

#### Site Preparation

Direct placement of the geotextile on the prepared site is usually preferable. Generally, it is advisable to leave vegetative cover such as grass and weeds in place to provide a support matting for construction activities.

Before unrolling the geosynthetic, verify the roll identification, length, and installation location with the contract drawings. While unrolling the geosynthetic, inspect it for damage or defects. Damage that occurs during storage, handling, or installation shall be repaired as directed by the Engineer.



Mirafi® PET Woven Polyester Geotextile

Orientation of the geosynthetic is of extreme importance since geosynthetics vary in strength with direction. The geosynthetic panel length should be measured in the field then the geosynthetic should be rolled out and cut to the measured length using a razor blade, scissors, sharp knife, or equivalent.

Installation of the geotextile must conform to the lines and grades as drawn by the engineer. This may require large roll or panel placement, using manual positioning or equipment-assisted deployment.

\* These guidelines serve as a general basis for installation. Detailed instructions are available from your TenCate™ representative.





## Mirafi® PET High-Strength Woven Polyester Geotextiles for Soil Reinforcement Applications

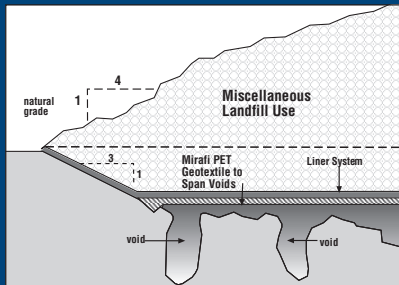
PROPERTIES	Test Method	Units	HS400	HS600	HS800	HS1150	HS1715	PET 400/50	PET 600/100	PET 800/100	PET 1000/100
<b>Wide Width Tensile Strength</b>											
Strength @ Ultimate (MD)	ASTM D4595	kN/m (lbs/ft)	70.0 (4800)	105.1 (7200)	140.1 (9600)	201.4 (13800)	300.4 (20580)	400 (27417)	600 (41121)	800 (54830)	1000 (68537)
Strength @ Ultimate (CD)	ASTM D4595	kN/m (lbs/ft)	70.0 (4800)	52.5 (3600)	52.5 (3600)	38.5 (2640)		50 (3427)	100 (6853)	100 (6853)	100 (6853)
Strength @ 5% Strain (MD)	ASTM D4595	kN/m (lbs/ft)	15.7 (1080)	35.0 (2400)	52.5 (3600)	70.0 (4800)	122.6 (8400)	140 (9594)	210 (14392)	280 (19189)	400 (27415)
Strength @ 10% Strain (MD)	ASTM D4595	kN/m (lbs/ft)	49.0 (3360)	84.0 (5760)	131.3 (9000)	175.1 (12000)	245.1 (16800)	n/a n/a	n/a n/a	n/a n/a	n/a n/a
Creep Reduced Strength (MD)	ASTM D5262	kN/m (lbs/ft)	42.0 (2880)	63.0 (4320)	84.0 (5760)	120.8 (8280)	180.2 (12348)	240.0 (16447)	360 (24671)	479.9 (32895)	598.7 (41037)
Long Term Design Strength (MD)	GR-GT7	kN/m (sand, silt, clay) (lbs/ft)	33.2 (2277)	49.8 (3420)	66.4 (4553)	95.5 (6545)	148.9 (10205)	198.3 (13590)	297.5 (20389)	396 (27139)	494.8 (33915)
Apparent Opening Size	ASTM 4751	mm (US Sieve)	0.43 (40)	0.85 (20)	0.85 (20)	0.600 (30)	0.850 (20)	n/a n/a	n/a n/a	n/a n/a	n/a n/a
Permittivity	ASTM D4491	sec <sup>-1</sup>	0.10	0.32	0.20	0.32	0.10	n/a	n/a	n/a	n/a

### PACKAGING

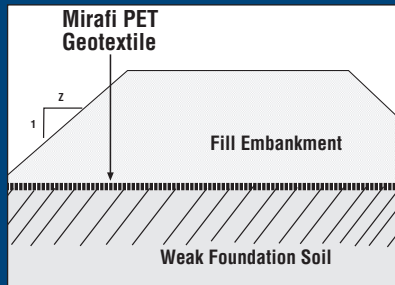
Roll/Width	m(ft)	4.5(15)	4.5(15)	4.5(15)	4.5(15)	4.5(15)	5(16.4)	5(16.4)	5(16.4)	5(16.4)
Roll/Length	m(ft)	91.5(300)	91.5(300)	91.5(300)	91.5(300)	91(300)	200(565)	150(492)	100(328)	100(328)
Est. Gross Weight	kg(lbs)	131(289)	181(398)	221(490)	324(714)	400(883)	960(2120)	1010(2230)	890(1965)	1143(2519)
Area	m <sup>2</sup> (yd <sup>2</sup> )	418(500)	418(500)	418(500)	418(500)	418(500)	1000(1195)	750(896)	500(598)	500(598)

NOTE: All Mechanical Properties and Hydraulic Properties shown are Minimum Average Roll Values (MARV). MD: Machine Direction, CD: Cross-Machine Direction

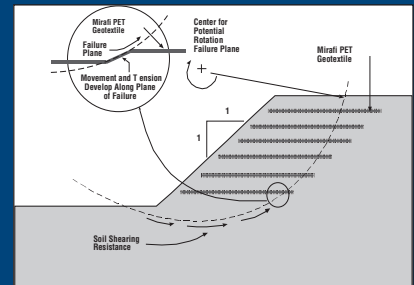
### Mirafi® PET Woven Polyester Geotextiles



Landfill Liner Reinforcement



Embankments Over Soft Soils



Reinforced Soil Slope

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