TENCATE Polyfelt®

Polyfelt® PP (ST) Series Woven Polypropylene Geotextiles

for Soil Separation

Polyfelt® PP (ST) Series Woven Polypropylene Geotextiles

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 Polyfelt® PP (ST) Series Geotextiles Make:

- Construction. Woven slit-film construction offers good resistance to installation abuse.
- Strength. High grab tensile and puncture strengths provide good performance in a wide range of roadway applications.
- Environmental. Polyfelt® PP (ST) Series geotextiles are chemically stable in a wide range of aggressive environments.
- Cost Effective. Polyfelt® PP (ST) Series geotextiles provide economical solutions to many civil engineering applications including a cost-effective road base separation layer.

APPLICATIONS

Polyfelt® PP10 applications include separation under parking lots, residential streets, and roadways. Polyfelt® PP10 is used over good to moderate strength subgrades for separation of base materials. Polyfelt® PP10 meets AASHTO M288-00 Specifications for Stabilization and Separation - Class 3.

Polyfelt® PP15 is used for separation and stabilization over moderate subgrades where coarse, angular, and abrasive base material is required. Polyfelt® PP15 provides separation and stabilization when moderate loads are expected. Polyfelt® PP15 meets AASHTO M288-00 Specifications for Stabilization and Separation - Class 1 and 2.

INSTALLATION GUIDELINES*

Geotextile Placement

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. It should be rolled out flat and tight with no folds. The rolls should be oriented as shown on plans to insure the principal strength direction of the material is placed in the correct orientation. Adjacent rolls should be overlapped or seamed as a function of subgrade strength (CBR).

Prior to fill placement, the geotextile should be held in place using suitable means such as pins, piles of soil, etc. so that it does not move around during fill placement.

Fill Placement

Fill should be placed directly over the geotextile in 20cm (8in) to 30cm (12in) loose lifts. For very weak subgrades, 45cm (18in) or thicker lifts may be required to stabilize the subgrade, as directed by the engineer.

Typically, vehicles should not be driven on Polyfelt® PP (ST) Series geotextiles. Tracked construction equipment should not be operated directly upon the geotextile. A minimum fill soil thickness of 15cm (6in) is required prior to operation of tracked vehicles over the geotextile. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geotextile.

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Property	Test Method	Units	PP10	PP15
MECHANICAL PROPERTIES				
Grab Tensile Strength	ASTM D 4632	kN (lbs)	0.89 (200)	1.44 (315)
Grab Tensile Elongation	ASTM D 4632	% MD / CD	15 / 10	15
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.33 (75)	0.53 (120)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	2756 (400)	4134 (600)
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)	0.65 (145)
UV Resistant after 500 hours	ASTM D 4355	% Strength	70	70
HYDRAULIC PROPERTIES				
Apparent Opening Size	ASTM D 4751	mm (US Sieve)	0.425 (40)	0.425 (40)
Permittivity	ASTM D 4491	sec^{-1}	0.05	0.05
Flow Rate	ASTM D 4491	$1/mm/m^2$ ($gal/min/ft^2$)	204 (5)	163 (4)
Packaging				
Roll Width		m (ft)	3.8 (12.5) 5.3 (17.5)	3.8 (12.5) 5.3 (17.5)
Roll Length		m (ft)	132 (432) 94.2 (309)	110 (360) 78.7 (258)
Est. Gross Weight		kg (lbs)	95 (210)	109 (240)
Roll Area		m^2 (yd^2)	502 (600)	418 (500)

* NOTE: Mechanical Properties and Hydraulic Properties shown are Minimum Average Roll Values (MARV). Apparent Opening Size (AOS) properties shown are Maximum Average Roll Values.

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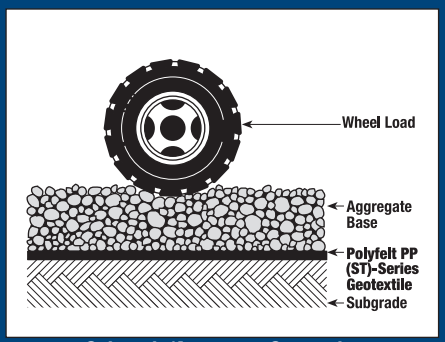
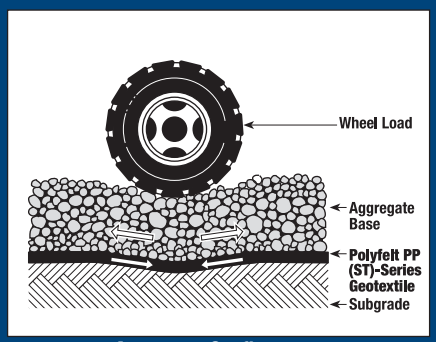
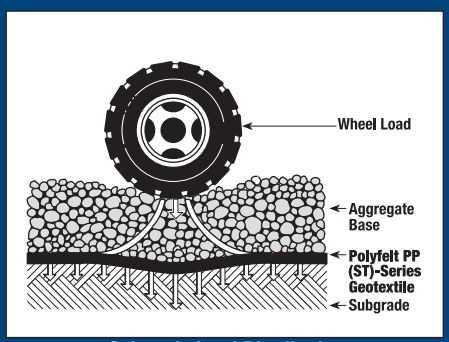


Subgrade/Aggregate Separation



Aggregate Confinement



Subgrade Load Distribution

1007

365 South Holland Drive
Pendergrass, GA 30567
Tel 800 685 9990
Tel 706 693 2226
Fax 706 693 4400
www.polyfeltusa.com

ISO 9001
FM 61026

TENCATE
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