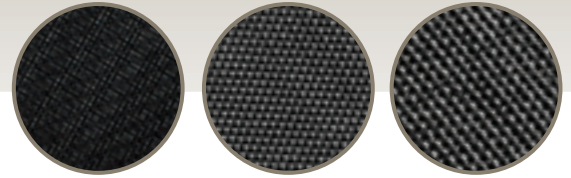


# GEOTEX® WOVEN GEOTEXTILES



Featuring high tensile strengths and low elongations, our Geotex® woven geotextiles have a remarkable capacity for filtering soils, distributing loads, reducing rutting and extending the life of paved and unpaved roadways. Made from individual yarns woven together to provide dimensionally stable geotextiles, they are resistant to ultraviolet (UV) degradation and to biological and chemical environments normally found in soils. All of our woven geotextiles are backed by decades of in-field performance in everything from separation and filtration to erosion control and waste containment applications.

## FEATURES & BENEFITS

- ▶ Tensile strength ranges from 135 to 370 lbs (600 to 1645 N) for a wide variety of soil stabilization and filtration applications
- ▶ Higher strengths available in our line of soil reinforcement woven geotextiles
- ▶ Made from polypropylene resin for superior chemical resistance in even the most aggressive environmental applications
- ▶ Yarns are woven together to form a strong fabric capable of withstanding construction installation stresses
- ▶ Contains additives for maximum UV resistance

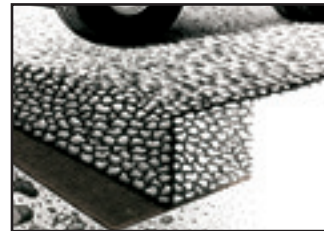
**Outperforms and is more cost-effective than conventional methods, including:**

- ▶ Thicker aggregate layers
- ▶ Undercutting and removal
- ▶ Chemical stabilization

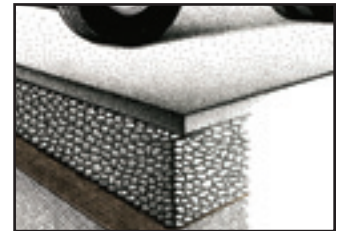
## GEOTEX® WOVEN GEOTEXTILES PRODUCT FAMILY TABLE

SEPARATION / STABILIZATION	FILTRATION / MONOFILAMENT
GEOTEX® 135ST	GEOTEX® 104F
GEOTEX 200ST	GEOTEX 111F
GEOTEX 250ST	GEOTEX 117F
GEOTEX 270ST	
GEOTEX 315ST	

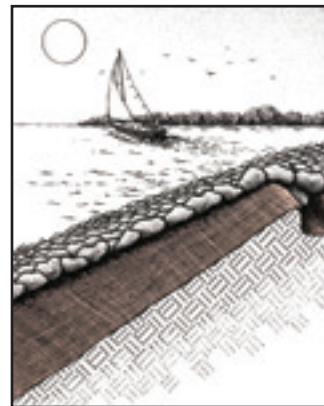
NOTE: Refer to our Geotex® Soil Reinforcement Geotextiles product brochure for high-strength woven geotextiles.



Geotex® "ST" series of woven geotextiles can reduce aggregate thickness in unpaved roads by as much as 50%.



The expected life of paved roads and parking lots is extended with a Geotex® woven geotextile by permanently separating the subgrade from the aggregate.



Geotex® woven filtration geotextiles are ideal for use in shoreline revetment systems.



Geotex® woven monofilament geotextiles are very resistant to biological clogging, making them ideal for landfill leachate collection systems.

# GEOTEX® WOVEN GEOTEXTILES

## APPLICATION RECOMMENDATIONS FOR GEOTEX® WOVEN GEOTEXTILES

	APPLICATION	ORGANIZATION / REFERENCE #	CATEGORY	GEOTEX® STYLE
CIVIL	PERMANENT EROSION CONTROL	AASHTO M288-05/FHWA FP-03	CLASS 1/TYPE IV (A) CLASS 2/TYPE IV (D-F)	GEOTEX® 2x2 HF* GEOTEX 104F
	DRAINAGE	AASHTO M288-05/FHWA FP-03	CLASS 2/TYPE I (A-C) CLASS 3/TYPE I (D-F)	GEOTEX 104F GEOTEX 104F
	ROADWAY SEPARATION	AASHTO M288-05/FHWA FP-03	CLASS 1/TYPE II (A) CLASS 2/TYPE II (B) CLASS 3/TYPE II (C)	GEOTEX 315ST GEOTEX 250ST GEOTEX 200ST
	ROADWAY STABILIZATION	AASHTO M288-05/FHWA FP-03	CLASS 1/TYPE III (A) CLASS 2/TYPE III (B)	GEOTEX 315ST GEOTEX 250ST
ENVIRONMENTAL	LANDFILL LEACHATE COLLECTION/DETECTION	EPA/GRI REPORT NO. 15	—	GEOTEX 111F

NOTES: · AASHTO: American Association of State Highway Transportation Officials · GRI: Geosynthetics Research Institute · EPA: Environmental Protection Agency  
\* Refer to our Geotex® Soil Reinforcement Geotextiles product brochure for material properties.

## GEOTEX® WOVEN SEPARATION / STABILIZATION GEOTEXTILES PROPERTY TABLE<sup>1</sup> ENGLISH & METRIC UNITS

	PROPERTY	TEST METHOD	UNIT	VALUE <sup>3</sup>	135ST			200ST			250ST			315ST			350ST		
MECHANICAL	GRAB TENSILE STRENGTH	ASTM D-4632	lb N	MARV	135 600	15 67	17.5 79	12.5 56	15 67	17.5 79	12.5 56	15 67	17.5 79	12.5 56	15 67	17.5 79	12.5 56	15 67	
	GRAB ELONGATION	ASTM D-4632	%	MARV	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
	PUNCTURE STRENGTH	ASTM D-4833	lb N	MARV	65 285	75 335	90 400	65 285	75 335	90 400	65 285	75 335	90 400	65 285	75 335	90 400	65 285	75 335	
	CBR PUNCTURE	ASTM D-6241	lb N	MARV	380 1690	450 2000	550 2450	380 1690	450 2000	550 2450	380 1690	450 2000	550 2450	380 1690	450 2000	550 2450	380 1690	450 2000	
	MULLEN BURST	ASTM D-3786	psi kPa	MARV	325 2240	400 2758	500 3447	325 2240	400 2758	500 3447	325 2240	400 2758	500 3447	325 2240	400 2758	500 3447	325 2240	400 2758	
	TRAPEZOIDAL TEAR	ASTM D-4533	lb N	MARV	55 244	75 330	90 400	55 244	75 330	90 400	55 244	75 330	90 400	55 244	75 330	90 400	55 244	75 330	
HYDRAULIC	APPARENT OPENING SIZE (AOS)	ASTM D-4751	US Sieve mm	MaxARV	30 0.600	40 0.425	40 0.425	30 0.600	40 0.425	40 0.425	30 0.600	40 0.425	40 0.425	30 0.600	40 0.425	40 0.425	30 0.600	40 0.425	
	PERMITTIVITY	ASTM D-4491	sec <sup>-1</sup>	MARV	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
	WATER FLOW RATE	ASTM D-4491	gpm/ft <sup>2</sup> l/min/m <sup>2</sup>	MARV	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	4 160	
ENDURANCE	UV RESISTANCE	ASTM D-4355	% Retained @ 500 hours	MARV	70	70	70	70	70	70	70	70	70	70	70	70	70	70	
PACKAGING	ROLL WIDTH	MEASURED	TYPICAL	ft m	12.5 3.81	15 4.57	17.5 5.33	12.5 3.81	15 4.57	17.5 5.33	12.5 3.81	15 4.57	17.5 5.33	12.5 3.81	15 4.57	17.5 5.33	12.5 3.81	15 4.57	
	ROLL LENGTH	MEASURED	TYPICAL	ft m	432 131.7	360 109.8	360 109.8	432 131.7	360 109.8	309 94.2	360 109.8	258 78.6	360 109.8	300 91.5	258 78.6	300 91.5	258 78.6	300 91.5	
	ROLL WEIGHT	CALCULATED	TYPICAL	lb kg	127 58	146 66	168 76	174 79	178 81	178 81	216 98	222 101	211 96	216 98	217 98	217 98	312 142	312 142	
	ROLL AREA	MEASURED	TYPICAL	yd <sup>2</sup> m <sup>2</sup>	600 502	600 502	700 585	600 502	600 502	600 502	600 502	500 418	500 418	500 418	500 418	500 418	500 418	500 418	

NOTES: 1. The property values listed are effective 06/2009 and are subject to change without notice. 2. Values reported in weaker principal direction. 3. All values listed are Minimum Average Roll Values (MARV) unless otherwise noted, calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any sample taken during quality assurance testing will exceed the value reported. Maximum Average Roll Values (MaxARV) is calculated as typical plus two standard deviations. 4. Underlined styles meet and/or exceed the American Association of State Highway Transportation Officials (AASHTO) M288-05 specifications.

## GEOTEX® WOVEN FILTRATION/MONOFILAMENT GEOTEXTILES PROPERTY TABLE<sup>1</sup>

ENGLISH & METRIC UNITS

	PROPERTY	TEST METHOD	VALUE <sup>3</sup>	UNIT	104F	111F	117F
MECHANICAL	GRAB TENSILE STRENGTH (MD/XD) <sup>2</sup>	ASTM D-4632	MARV	lb N	370 x 250 1645 x 1110	370 x 220 1645 x 980	255 x 275 1130 x 1220
	GRAB ELONGATION (MD/XD) <sup>2</sup>	ASTM D-4632	MARV	%	24 x 24	25 x 15	20 x 15
	PUNCTURE STRENGTH	ASTM D-4833	MARV	lb N	130 578	115 510	135 600
	CBR PUNCTURE	ASTMD-6241	MARV	lb N	850 3780	850 3780	1000 4450
	MULLEN BURST	ASTM D-3786	MARV	psi kPa	480 3300	470 3240	420 2890
	TRAPEZOIDAL TEAR (MD/XD) <sup>2</sup>	ASTM D-4533	MARV	lb N	100 x 70 445 x 310	115 x 75 510 x 335	40 x 50 175 x 220
HYDRAULIC	PERCENT OPEN AREA (POA)	$\frac{\text{OPENING AREA}}{\text{TOTAL AREA}} \times 100$	MARV	%	4	11	17
	APPARENT OPENING SIZE (AOS)	ASTM D-4751	MaxARV	US Sieve mm	70 0.212	30 0.600	20 0.850
	PERMITTIVITY	ASTM D-4491	MARV	sec <sup>-1</sup>	0.28	1.10	1.50
	WATER FLOW RATE	ASTM D-4491	MARV	gpm/ft <sup>2</sup> l/min/m <sup>2</sup>	18 730	110 4480	200 8145
ENDURANCE	UV RESISTANCE	ASTM D-4355	MARV	% Retained @ 500 hours	90	90	90
PACKAGING	ROLL WIDTH	MEASURED	TYPICAL	ft m	12 3.65	12.5 3.81	12 3.65
	ROLL LENGTH	MEASURED	TYPICAL	ft m	300 91.5	300 91.5	300 91.5
	ROLL WEIGHT	CALCULATED	TYPICAL	lb kg	184 83	193 88	177 80
	ROLL AREA	MEASURED	TYPICAL	yd <sup>2</sup> m <sup>2</sup>	400 334	400 334	400 334

NOTES: 1. The property values listed are effective 06/2009 and are subject to change without notice. 2. Values reported in machine direction and cross direction, respectively. MD indicates Machine Direction and XD indicates Cross Direction. 3. All values listed are Minimum Average Roll Values (MARV) unless otherwise noted, calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any sample taken during quality assurance testing will exceed the value reported. Maximum Average Roll Values (MaxARV) is calculated as typical plus two standard deviations.

### KEY PROPERTIES OF GEOTEX® WOVEN GEOTEXTILES

- ▶ Tensile Strength: Ability to resist stresses in the plane of the fabric.
- ▶ Puncture Strength: Especially during construction, the geotextile must withstand pressures applied from surrounding aggregate.
- ▶ Percent Open Area (Filtration only): Measures the amount of light passing through the fabric, which is indicative of the geotextile's ability to resist clogging.
- ▶ Trapezoidal Tear Strength: The ability of the fabric to resist tearing if ruptured.

For downloadable documents like construction specifications, installation guidelines, case studies and other technical information, please visit our web site at [geotextile.com](http://geotextile.com). These documents are available in easy-to-use Microsoft® Word format.



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