



GEOTEXTILES PRODUCT DATA

FOR MORE INFORMATION

Information on the geotextile specification charts has been provided for comparative purposes only. Designers should contact manufacturers for additional details and to discuss site-specific considerations.

Information on the use and specification of geotextiles is also available from the Geosynthetic Materials Association (GMA).

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PUBLISHER'S NOTE

All information included in this Specifier's Guide was compiled from information submitted by firms in the geosynthetics industry. Specifications were submitted voluntarily and their accuracy is the responsibility of the manufacturer. The appearance of a listing in this directory is not an endorsement of the company or product by *Geosynthetics* magazine or the Industrial Fabrics Association International (IFAI). The Specifier's Guide is intended as a guide, and *Geosynthetics* and IFAI encourage readers to contact the companies listed for further information.

These products are engineered to provide cost-effective solutions to meet specific design requirements for separation, reinforcement, filtration, drainage, and protection applications.

Although engineers have developed numerous applications for geotextiles, there are five major functions: separation, reinforcement, filtration, drainage, and protection. The major geotextile classifications are woven, nonwoven, and knitted. Generally, woven fabrics exhibit high tensile strength, high modulus, and low elongation. Needle-punched nonwoven fabrics typically have high permeability as a result of high porosity, and conformability because of their high elongation characteristics. Thermally-spun, bonded, nonwoven fabrics typically have high modulus, compared to needlepunched nonwoven fabrics, and high conformability. Depending on the manufacturing process, knitted geotextiles can offer high tensile strength and elasticity.

Geotextiles are available in a variety of structures and polymer compositions designed to meet a wide range of applications. It is important that all geotextiles be composed of strong, durable, chemically inert polymeric materials that are resistant to the effects of site-specific ground conditions, weather, and aging.

In permanent installations, long-term material performance is a result of the polymer structure's durability. Depending on the application, geotextiles may have other survivability requirements, such as creep resistance and resistance to temperature and/or ultraviolet exposure.

The numbers

Companies that submitted product data chart lines were asked to provide data determined through industry-accepted testing methods. Companies signed a certificate of compliance verifying the accuracy of this data.

Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

ACE Geosynthetics Inc. | www.geoace.com

ACETex GT70-I PP (W/PP)	430 (13)	NP	0.425 (40)	0.40/1200 (29),CH	5.7 (1280)	0.8x1.8 (180x404)	1.9x3.5 (47x786)/NP	1	F, SP, ST	NP	NP	70 (399)	105 (599)	NP	NP	F, R, SP, ST
ACETex GT175-II PP (W/PP)	770 (23)	NP	0.425 (40)	0.40/1200 (29),CH	20 (4491)	2.5x2.5 (561x561)	4x4 (898x898)/NP	1	F, SP, ST	NP	NP	175 (998)	175 (998)	NP	NP	F, R, SP, ST
ACETex GT200-II PP (W/PP)	950 (28)	NP	0.297 (50)	0.45/1350 (33), CH	23 (5164)	4.5x4.0 (1010x898)	8x6 (1796x1347)/NP	1	F, SP, ST	NP	NP	200 (1141)	200 (1141)	NP	NP	F, R, SP, ST
ACETex GT300-II (W/PET)	1100 (32)	NP	0.5 (35)	0.2/600 (14),CH	20 (4491)	4.0x4.0 (898x898)	7x7 (1572x1572)/NP	1	SP, ST	50 (285)	89 (508)	300 (1711)	300 (1711)	NP	NP	R, SP, ST
ACETex GT600-I (W/PET)	1200 (35)	NP	NA	0.2/600 (14), CH	NA	5.0xNP (1123xNP)	8.5xNP (1909xNP)/NP	1	SP, ST	220 (1254)	NP	600 (3422)	NP	NP	NP	R, SP, ST
ACETex GT1000-I (W/PET)	2100 (62)	NP	NA	NA	NA	NA	NA	1	SP, ST	NP	NP	1000 (5703)	NP	NP	NP	R, SP, ST

Agru America Inc. | www.agruamerica.com

Agrutex 061 (NW-P/PP)	203 (6.0)	NP	.212 (70)	1.4/4479 (110), CH	.395 (90)	.267 (60)	.712 (160)/50	NP	NP	NP	NP	NP	NP	NP	NP	S/T, S/P, F, D, E, P
Agrutex 081 (NW-P/PP)	271 (8.0)	NP	.18 (80)	1.1/3675 (90), CH	.49 (110)	.356 (80)	.912 (205)/50	NP	NP	NP	NP	NP	NP	NP	NP	S/T, S/P, F, D, E, P, R

Belton Industries Inc. | www.beltonindustries.com

Beltech 180, Style 1980, (W-SF/PP)	NA	NA	0.600 (30)	0.05/160 (4), FH	0.400 (90)	0.334 (75)	0.800 (180)/15	3	SP	NP	NP	NP	NP	NP	NP	SP
Beltech 250, Style 1475 (W-SF/PP)	NA	NA	0.600 (30)	0.05/160 (4), FH	0.445 (100)	0.400 (90)	1.11 (250)/15	2	SP	NP	NP	NP	NP	NP	NP	SP
Beltech 315, Style 977 (W-SF/PP)	NA	NA	0.500 (35)	0.05/160 (4), FH	0.534 (120)	0.534 (120)	1.40 (315)/15	1	ST	NP	NP	30.7 (175) 20	30.7 (175) 15	NP	NP	ST
Beltech 400, Style 884 (W-SF/PP)	NA	NA	0.500 (35)	0.05/160 (4), FH	1.00 (225)	0.76 x 0.89 (170x200)	2.17x2.36 (490x530)/25x20	NP	NP	NP	NP	52.5 (300) 25	56.0 (320) 20	NP	NP	ST
Beltech 2x2 (W-SF/PP)	NA	NA	0.500 (35)	0.5/1600 (40), FH	NP	NP	NP	NP	NP	NP	NP	35.0 (200) 25	35.0 (200) 15	NP	NP	ST
Beltech 4x4 (W-SF/PP)	NA	NA	0.500 (35)	0.2/600 (15), FH	NP	NP	NP	NP	NP	NP	NP	70.0 (400) 17	70.0 (400) 13	NP	NP	ST
Beltech 4x6 (W-SF/PP)	NA	NA	0.425 (40)	0.3/900 (25), FH	NP	NP	NP	NP	NP	NP	NP	70.0 (400) 17	105 (600) 13	NP	NP	ST
Beltech 940 (W-SF/PP)	NA	NA	0.600 (30)	0.100/306 (7.5), FH	0.285 (65)	0.245 (55)	0.556x0.447 (125x101)/20/15	NA	S/F	NP	NP	NP	NP	NP	NP	S/F

- [1] NW = Non woven, -P = needlepunched, -h = calendared
W = Woven, -SF = slit film t = thermally bonded
K = Knitted O/C = Other/combination
[2] PP = Polypropylene, PET = Polyester, * = average
[3] FH = Test is run by the falling head method
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[4] SP = Separation S/F = Silt Fence
ST = Stabilization D = Drainage
F = Filtration E = Erosion Control
A/O = Asphalt overlay
[5] MD = Machine direction XD = Cross-machine direction

[6] For a minimum of 10,000 hours, extrapolated to a 75 year time period

$$[7] LTDS = \frac{T_{ult}}{RF_{cr} \times RF_{io} \times RF_D}$$

RF_{cr} = Reduction factor for creep
RF_{io} = Reduction factor for installation damage
RF_D = Reduction factor for durability

NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

- [8] R = Reinforcement P = Protection
SP = Separation S/F = Silt Fence
ST = Stabilization D = Drainage
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RC = Reinforcement Composite
A/O = Asphalt overlay
NP = Not provided by manufacturer
NA = Not applicable, per manufacturer
Companies were requested to provide minimum average roll values (MARV). All claims are the responsibility of the manufacturer.

Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
MD	XD	MD	XD													

Carthage Mills | www.carthagemills.com | www.gxgeogrids.com

Carthage 6% (W-PP)	NA	4-6	0.212 (70)	0.28/733 (18), CH	4.23 (950)	0.44x0.27 (100x60)	1.64x1.11 (370x250)/15	2	D, E (15-50% &>50%)	NA	NA	39.4 (225)	25.4 (145)	NA	NA	E, F, S, S/F, ST, SP, R
FX-55 (W-PP)	NA	<1	0.425 (40)	0.05/204 (5), FH	3.11 (700)	0.33 (75)	0.89 (200)/15	3	SP, ST	NA	NA	21.0 (120)	21 (120)	NA	NA	SP, ST, R
FX-66 (W-PP)	NA	<1	0.425 (40)	0.05/160 (4), FH	4.0 (900)	0.51 (115)	1.40 (315)/15	2, 1	SP, ST	NA	NA	30.6 (175)	35 (200)	NA	NA	SP, ST, R
FX-400MF (W-PP)	NA	NA	0.60 (30)	0.40/1222 (30), CH	8.9 (2000)	0.80 (180)	2.11x1.96 (475x440)	NA	NA	35 (200)	39.4 (225)	70 (400)/9	70 (400)/9	NA	NA	SP, ST, R
FX-40HS (NW-PP-P-h)	NA	NA	0.212 (70)	2.0/5700 (140), CH	1.38 (310)	0.22 (50)	0.51 (115)/50	3	D, SP, ST	NA	NA	NA	NA	NA	NA	D, SP
FX-60HS (NW-PP-P-h)	NA	NA	0.212 (70)	1.3/4480 (110), CH	1.78 (400)	0.27 (60)	0.71 (160)/50	2	D, SP, ST, E	NA	NA	NA	NA	NA	NA	D, SP, ST, E
FX-80HS (NW-PP-P-h)	NA	NA	0.180 (80)	1.4/3657(90), CH	2.34 (525)	0.36 (80)	0.91 (205)/50	1, 3	ST, E	NA	NA	NA	NA	NA	NA	D, SP, ST, E

Crown Resources LLC | www.crownresources.net

R035 (NW/PP)	NA	NA	0.30 (50)	2.2/6095 (150), FH	1.11 (250)	0.178 (40)	0.400 (90)/50	NA	NA	NA	NA	NA	NA	NA	NA	F, D, SP, E, S/F
R040 (NW/PP)	NA	NA	0.212 (70)	2.0/5704 (140), FH	1.20 (270)	0.200 (45)	0.444 (100)/50	NA	NA	NA	NA	NA	NA	NA	NA	F, D, SP, E, S/F
R042 (NW/PP)	NA	NA	0.212 (70)	1.8/4885 (120), FH	1.38 (310)	0.222 (50)	0.533 (120)/50	3	S/F	NA	NA	NA	NA	NA	NA	F, D, SP, E, S/F
R060 (NW/PP)	NA	NA	0.212 (70)	1.6/4880 (110), FH	1.82 (410)	0.267 (60)	0.711 (160)/50	2	SP, D	NA	NA	NA	NA	NA	NA	F, D, SP, E, ST
R080 (NW/PP)	NA	NA	0.180 (80)	1.4/3765 (90), FH	2.33 (525)	0.356 (80)	0.911 (205)/50	1	SP, D, ST, E	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
R100 (NW/PP)	NA	NA	.150 (100)	1.2/3251 (80), FH	2.89 (650)	.444 (100)	1.11 (250)/50	1	SP, D, ST, E	NA	NA	NA	NA	NA	NA	P, F, D, E, SP, ST
R160 (NW/PP)	NA	NA	.150 (100)	.7/2035 (50), FH	4.56 (1025)	.644 (145)	1.69 (380)/50	1	SP, D, ST, E	NA	NA	NA	NA	NA	NA	P, F, D, E, SP, ST
E100P (NW/PP)	NA	NA	.150 (100)	1.0/3055 (75), FH	2.89 (650)	.444 (100)	1.20 (270)/50	1	SP, D, ST, E	NA	NA	NA	NA	NA	NA	P, F, D, E, SP, ST
BB 4 X 2.5 (W/PP)	NA	NA	.30 (50)	.28/733 (18), FH	NA	1.11 (250)	NA	NA	NA	NA	NA	65 (375)	50 (290)	NA	NA	Dewatering Bags, Shoreline Protection

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- [6] For a minimum of 10,000 hours, extrapolated to a 75 year time period T_{ult}
[7] $LTDS = \frac{RF_{cr} \times RF_{10} \times RF_D}{RF_{cr} = \text{Reduction factor for creep}$
 $RF_{10} = \text{Reduction factor for installation damage}$
 $RF_D = \text{Reduction factor for durability}$
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		Filtration/Hydraulic Properties				Physical Properties				Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

Crown Resources LLC | www.crownresources.net

BB 4 X 6 (W/PP)	NA	NA	.425 (40)	.30/813 (20),FH	NA	NA	NA	NA	NA	NA	NA	70 (400)	100 (600)	NA	NA	Dewatering Bags, Shoreline Protection
BB 10 X 10 (W/PP)	NA	NA	.425 (40)	.37/1010 (25),FH	NA	NA	NA	NA	NA	NA	NA	175 (1000)	175 (1000)	NA	NA	Dewatering Bags, Shoreline Protection
W200 (W/PP)	NA	NA	.425 (40)	.05/200 (5),FH	3.11 (700)	.334 (75)	.890 (200)/12	3	SP,ST	NA	NA	NA	NA	NA	NA	SP,ST
W315 (W/PP)	NA	NA	.425 (40)	.05/163 (4),FH	4.0 (900)	.533 (120)	1.40 (315)/12	1	SP,ST	NA	NA	NA	NA	NA	NA	SP,ST
M706 (W/PP)	NA	NA	.212 (70)	.28/733 (18),FH	4.22 (950)	.444x.267 (100x60)	1.65x1.11 (370x250)/15	2	D,E	NA	NA	NA	NA	NA	NA	F, D, E

Dalco Nonwovens | www.dalcononwovens.com

Dalco 1031 (NW-P/PP)	NP	NP	.30 (50)	2.2/6095 (150), CH	.934 (210)	.11 (25)	.35 (80)/50	NP	NP	NA	NA	NA	NA	NA	NA	F, D, E
Dalco 1035 (NW-P/PP)	NP	NP	.30 (50)	2.2/6095 (150), CH	1.157 (260)	.178 (40)	.401 (90)/50	NP	NP	NA	NA	NA	NA	NA	NA	F, D, E
Dalco 1040 (NW-P/PP)	NP	NP	.212 (70)	2.0/5700 (140), CH	1.379 (310)	.202 (45)	.45 (100)/50	NP	NP	NA	NA	NA	NA	NA	NA	F, D, E
Dalco 1045 (NW-P/PP)	NP	NP	.212 (70)	1.8/4885 (120), CH	1.490 (335)	.22 (50)	.54 (120)/50	3	SP, D, F, E	NA	NA	NA	NA	NA	NA	F, D, E
Dalco 1060 (NW-P/PP)	NP	NP	.212 (70)	1.6/4479 (110), CH	1.824 (410)	.269 (60)	.71 (160)/50	2	SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1070 (NW-P/PP)	NP	NP	.212 (70)	1.5/4074 (100), CH	2.046 (460)	.333 (75)	.80 (180)/50	2	SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1080 (NW-P/PP)	NP	NP	.18 (80)	1.4/3675 (90), CH	2.335 (525)	.359 (80)	.91 (205)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1100 (NW-P/PP)	NP	NP	.18 (80)	1.2/3251 (80), CH	2.780 (625)	.444 (100)	1.1 (250)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1120 (NW-P/PP)	NP	NP	.15 (100)	1.0/3055 (75), CH	3.670 (825)	.51 (115)	1.33 (300)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1160 (NW-P/PP)	NP	NP	.15 (100)	.7/2035 (50), CH	4.559 (1025)	.644 (145)	1.69 (380)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1061 (NW-P/PP)	203 (6.0)	NP	.212 (70)	1.6/4479 (110), CH	1.935 (435)	.311 (70)	.762 (170)/50	2	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P

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										MD	XD	MD	XD			

Dalco Nonwovens | www.dalcononwovens.com

Dalco 1081 (NW-P/PP)	271 (8.0)	NP	.18 (80)	1.3/3675 (90), CH	2.558 (575)	.400 (90)	.986 (220)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1101 (NW-P/PP)	339 (10.0)	NP	.15 (100)	.94/3055 (75), CH	3.225 (725)	.445 (100)	1.201 (270)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1121 (NW-P/PP)	407 (12.0)	NP	.15 (100)	.90/2544 (70), CH	4.115 (925)	.556 (125)	1.434 (320)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P
Dalco 1161 (NW-P/PP)	542 (16.0)	NP	.15 (100)	.5/1833 (45), CH	5.004 (1125)	.667 (150)	1.748 (390)/50	1	ST, SP, D, F, E	NP	NP	NP	NP	NP	NP	P

Fiberweb Geosynthetics | www.fiberweb.com/geosynthetics/

Typar 3151 NW-PP-t	54* (1.6)	NA	0.84 (20/30)	1.5/9635 (235), FH	0.045 (10)	0.070 (15)	0.156 (35)/60	NP	NP	NP	NP	NP	NP	NA	NA	SP
Typar 3201 NW-PP-t	65* (1.9)	NA	0.59 (30)	1.0/7790 (190), FH	0.080 (18)	0.110 (25)	0.267 (60)/60	NP	NP	NP	NP	NP	NP	NA	NA	SP, D
Typar 3301 NW-PP-t	104* (3.0)	NA	0.30 (50)	0.8/3895 (95), FH	0.110 (25)	0.156 (35)	0.533 (120)/60	NP	NP	NP	NP	NP	NP	NA	NA	SP, S/F, F, D
Typar 3341 NW-PP-t	116* (3.4)	NA	0.25 (60)	0.7/3485 (85), FH	0.150 (34)	0.180 (40)	0.533 (120)/60	NP	NP	NP	NP	NP	NP	NA	NA	SP, F, D
Typar 3401 NW-PP-t	136* (4.0)	NA	0.21 (70)	0.7/2460 (60), FH	0.180 (41)	0.270 (60)	0.578 (130)/60	3	SP, ST, D, E	NP	NP	NP	NP	NA	NA	SP, ST, F, D, E, P
Typar 3501 NW-PP-t	170* (5.0)	NA	0.20 (70)	0.5/2050 (50), FH	0.250 (56)	0.270 (60)	0.710 (160)/60	2	SP, ST, D, E	NP	NP	NP	NP	NA	NA	F, D, SP, ST, E, P
Typar 3601 NW-PP-t	204* (6.0)	NA	0.10 (140)	0.10/615 (15), FH	0.300 (67)	0.400 (90)	1.067 (240)/60	2	SP, ST, D, E	NP	NP	NP	NP	NA	NA	F, D, SP, ST, E, R, P
Typar 3631 NW-PP-t	214* (6.3)	NA	0.10 (140)	0.20/820 (20), FH	0.360 (81)	0.400 (90)	1.110 (250)/60	1	SP, ST, D, E	NP	NP	NP	NP	NA	NA	F, D, SP, ST, E, R, P
Typar 3801 NW-PP-t	272* (8.0)	NA	0.09 (170)	0.10/328 (8), FH	0.415 (93)	0.425 (95)	1.335 (300)/60	1	SP, ST	NP	NP	NP	NP	NA	NA	E, SP, ST, R, P

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W = Woven, -SF = slit film t = thermally bonded
K = Knitted O/C = Other/combination
[2] PP = Polypropylene, PET = Polyester, * = average
[3] FH = Test is run by the falling head method
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[4] SP = Separation S/F = Silt Fence
ST = Stabilization D = Drainage
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A/O = Asphalt overlay
[5] MD = Machine direction XD = Cross-machine direction

- [6] For a minimum of 10,000 hours, extrapolated to a 75 year time period T_{ult}
[7] $LTDS = \frac{RF_{ch} \times RF_{10} \times RF_D}{T_{ult}}$
 RF_{ch} = Reduction factor for creep
 RF_{10} = Reduction factor for installation damage
 RF_D = Reduction factor for durability
NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

- [8] R = Reinforcement P = Protection
SP = Separation S/F = Silt Fence
ST = Stabilization D = Drainage
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RC = Reinforcement Composite
A/O = Asphalt overlay
NP = Not provided by manufacturer
NA = Not applicable, per manufacturer
Companies were requested to provide minimum average roll values (MARV). All claims are the responsibility of the manufacturer.

Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

GSE Lining Technology Inc. | www.gseworld.com

NW4 (NW-P/PP)	135 (4)	NA	0.212 (70)	1.8 5495 (135)	0.265 (60)	0.22 (50)	0.53 (120)/50	3	SP, D, F, E, A/O	NP	NP	NP	NP	NP	NP	NP
NW6 (NW-P/PP)	200 (6)	NA	0.212 (70)	1.5 4480 (110)	0.395 (90)	0.29 (65)	0.71 (160)/50	2	SP, D, F, E, A/O	NP	NP	NP	NP	NP	NP	NP
NW8 (NW-P/PP)	270 (8)	NA	0.18 (80)	1.3 3865 (95)	0.525 (120)	0.40 (90)	0.97 (220)/50	1	SP, D, F, E, P	NP	NP	NP	NP	NP	NP	NP
NW10 (NW-P/PP)	335 (10)	NA	0.15 (100)	1.0 3050 (75)	0.725 (165)	0.45 (100)	1.15 (260)/50	>1	SP, D, F, E, P	NP	NP	NP	NP	NP	NP	NP
NW12 (NW-P/PP)	405 (12)	NA	0.15 (100)	0.8 2440 (60)	0.835 (190)	0.55 (125)	1.42 (320)/50	>>1	SP, D, F, E, P	NP	NP	NP	NP	NP	NP	NP
NW16 (NW-P/PP)	540 (16)	NA	0.15 (100)	0.6 1830 (45)	1.055 (240)	0.66 (150)	1.73 (390)/50	>>>1	SP, D, F, E, P	NP	NP	NP	NP	NP	NP	NP
NW20 (NW-P/PP)	675 (20)	NA	NA	NA	0.88 (200)	0.55 (125)	1.98 (450)/50	>>>1	F, D, E	NP	NP	NP	NP	NP	NP	P, ST
NW24 (NW-P/PP)	810 (24)	NA	NA	NA	1.1 (250)	0.88 (200)	2.20 (500)/50	>>>1	F, D, E	NP	NP	NP	NP	NP	NP	P, ST
NW28 (NW-P/PP)	950 (28)	NA	NA	NA	1.3 (300)	1.1 (250)	2.42 (550)/50	>>>1	F, D, E	NP	NP	NP	NP	NP	NP	P, ST
NW32 (NW-P/PP)	1080 (32)	NA	NA	NA	1.5 (350)	1.19 (270)	2.64 (600)/50	>>>1	F, D, E	NP	NP	NP	NP	NP	NP	P, ST

Huesker Inc. | www.huesker.com

Comtrac 150 (W/PET)	300 (8.8)	NA	NA	NA	NA	NA	NA	NA	NA	72 (411)	NA	150/9 (855)	N/A	92 (6303)	71 (4863)	R
Comtrac 175 (W/PET)	410 (12)	NA	NA	NA	NA	NA	NA	NA	NA	90 (515)	NA	200/10 (1140)	N/A	122 (8404)	95 (6507)	R
Comtrac 300 (W/PET)	610 (18)	NA	NA	NA	NA	NA	NA	NA	NA	125 (715)	NA	300/10 (1710)	50/10 (286)	184 (12,607)	145 (9969)	R
Comtrac 400 (W/PET)	700 (21)	NA	NA	NA	NA	NA	NA	NA	NA	180 (1025)	NA	400/10 (2280)	50/10 (286)	245 (16,782)	203 (14,316)	R
Comtrac 600 (W/PET)	1050 (31)	NA	NA	NA	NA	NA	NA	NA	NA	270 (1540)	NA	600/10 (3425)	100/10 (570)	368 (25,514)	304 (20,824)	R
Comtrac 800 (W/PET)	1430 (42)	NA	NA	NA	NA	NA	NA	NA	NA	360 (2055)	NA	800/9 (4565)	100/10 (570)	480 (32,880)	397 (27,200)	R
Comtrac 175.175 DW (W/PET or PP)	600 (17.7)	NA	NA	NA	NA	NA	NA	NA	NA	70 (400)	NA	175/9 (1000)	175/10 (1000)	107 (7330)	83 (5720)	E, R, F
Comtrac P45.45 (W/PP)	240 (7)	NA	0.6 (30)	0.4 (CH) 1230 (30)	6.9 (1571)	0.9x0.9 (200x200)	1.6x1.3 (360x300) 15x10	2, 3	SP	15 (85)	20 (114)	47 (270)	47 (270)	NA	NA	ST, R
Comtrac P80.80 (W/PP)	400 (12)	NA	0.2 (70)	0.2 (CH) 810 (20)	11.6 (2619)	1.2x1.2 (275x275)	2.8x2.5 (630x570) 20x15	1, 2, 3	SP, ST	35 (200)	40 (230)	79 (450)	79 (450)	NA	NA	ST, R
Comtrac P105.105 (W/PP)	500 (15)	NA	0.33 (45)	0.33 (CH) 813 (20)	16.3 (3666)	1.4x1.4 (320x320)	3.6x3.3 (800x750) 20x15	1, 2, 3	SP, ST	50 (285)	55 (315)	105 (600)	105 (600)	NA	NA	ST, R

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$$[7] LTDS = \frac{T_{ult}}{RF_{cr} \times RF_{i0} \times RF_D}$$

RF_{cr} = Reduction factor for creep
RF_{i0} = Reduction factor for installation damage
RF_D = Reduction factor for durability

NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

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NP = Not provided by manufacturer
NA = Not applicable, per manufacturer
Companies were requested to provide minimum average roll values (MARV). All claims are the responsibility of the manufacturer.

Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

L&M Supply Co. Inc. | www.landmsupplyco.com

LM350 (NW-P/PP)	NP	N/A	.30 (50)	2.0/6095 (150), FH	0.245 (55)	0.178 (40)	0.401 (90)/50	NP	NP	N/A	N/A	N/A	N/A	N/A	N/A	F, D, E
LM400 (NW-P/PP)	NP	N/A	.212 (70)	2.0/5689 (140), FH	0.289 (65)	.222 (50)	.445 (100)/50	NP	NP	N/A	N/A	N/A	N/A	N/A	N/A	F, D, E
LM600 (NW-P/PP)	NP	N/A	.212 (70)	1.5/4880 (110), FH	0.40 (90)	0.267 (60)	0.711 (160)/50	2	SP, D	N/A	N/A	N/A	N/A	N/A	N/A	S/F, F, E
LM800 (NW-P/PP)	NP	N/A	0.18 (80)	1.35/3657 (90), FH	0.533 (120)	0.378 (85)	0.911 (205)/50	1	SP, D, ST, E	N/A	N/A	N/A	N/A	N/A	NA	S/F, F, D, E
LM1000 (NW-P/PP)	NP	N/A	0.15 (100)	1.2/3251 (80), FH	0.69 (155)	0.444 (100)	1.11 (250)/50	1	SP, D, ST, E	N/A	N/A	N/A	N/A	N/A	N/A	S/F, F, D, E
LM1200 (NW-P/PP)	NP	N/A	0.15 (100)	1.0/3055 (75), FH	0.78 (175)	0.511 (115)	1.33 (300)/50	1	SP, D, ST, E	N/A	N/A	N/A	N/A	N/A	N/A	S/F, F, D, E
LM1600 (NW-P/PP)	NP	N/A	0.15 (100)	0.7/2035 (50), FH	1.07 (240)	0.644 (145)	1.69 (380)/50	1	SP, D, ST, E	N/A	N/A	N/A	N/A	N/A	N/A	S/F, F, D, E
LM200 (W-SP/PP)	NP	1	0.43 (40)	0.05/163 (4), FH	0.422 (95)	0.330 (75)	0.9 (200)/15	3	SP, ST	N/A	N/A	N/A	N/A	N/A	N/A	
LM315 (W-SP/PP)	NP	1	0.43 (40)	0.05/163 (4), FH	0.667 (150)	0.533 (75)	1.4 (315)/15	1,2,3	SP, ST	N/A	N/A	N/A	N/A	N/A	N/A	

Maccaferri Inc. | www.maccaferri-usa.com

MacTex MX140 (NW-P-PP)	136 (4.0)	NA	0.21 (70)	2.0/5704(140), FH	0.289 (65)	0.200 (45)	0.444 (100)/50	3	NA	NA	NA	NA	NA	NA	NA	E, F, D
MacTex MX275 (NW-P-PP)	271 (8.0)	NA	0.180 (80)	1.4/3657 (90), FH	0.490 (110)	0.356 (80)	0.912 (205)/50	1	SP, ST, F, D, E	NA	NA	NA	NA	NA	NA	F, P
MacTex MX560 (NW-P-PP)	543 (16.0)	NA	0.150 (100)	0.7/2035 (50), CH	1.070 (240)	0.644 (145)	1.69 (380)/50	>1	SP, ST, F, D, E	NA	NA	NA	NA	NA	NA	E, F, D
MacTex MXW9 (W-SF-PP)	136 (4.0)	NA	0.3 (50)	0.05/203 (5), FH	0.405 (90)	0.330 (75)	0.9 (200)/15	NP	SP	NA	NA	NA	NA	NA	NA	SP, ST
MacTex MXW13 (W-SF-PP)	214 (6.3)	NA	0.425 (40)	0.05/163 (4), FH	0.533 (120)	0.533 (120)	1.4 (315)/15	NP	SP, ST	NA	NA	NA	NA	NA	NA	SP, ST
MaxTex MXM10 (W-PP)	NP	4 - 6	0.212 (70)	0.28/733 (18), FH	0.534 (120)	0.445 x 0.267 (100 x 60)	1.624 x 1.113 (370 x 250)/15	2, 3	D, E	NA	NA	NA	NA	NA	NA	F
MacTex MXM25 (W-PP)	NP	NP	0.425 (40)	0.90/2850 (70), FH	0.668 (150)	0.668 x 0.704 (150 x 165)	1.78 x 1.402 (400 x 315)/15	1, 2, 3	D, E	NA	NA	NA	NA	NA	NA	F
MacTex MXW35 HF (W-PP)	NP	NA	0.60 (30)	0.70/2035 (50), FH	0.622 (140)	0.556 x 0.566 (125 x 125)	1.4 x 1.4 (315 x 315)/15	NP	NP	NA	NA	NA	NA	NA	NA	NP
MacTex MXW70 HF (W-PP)	NP	NA	0.60 (30)	0.40/1222 (30), FH	0.868 (195)	0.801 x 0.801 (180 x 180)	2.11 x 1.96 (475 x 440)/6	1	NP	NA	NA	NA	NA	NA	NA	NP

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Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties				Physical Properties				Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

Mattex Geosynthetics | www.mattexgeo.com

Mattex 200 (W/PP)	NA	NA	0.425 (40)	0.05/160 (4),FH	3.115 (700)	0.330 (75)	0.90 (200)/15	3	SP,ST	NA	NA	NA	NA	NA	NA	SP,ST,E
Mattex 250 (W/PP)	NA	NA	0.425 (40)	0.05/160 (4),FH	3.775 (750)	0.401 (90)	1.112 (250)/15	2,3	SP,ST	NA	NA	NA	NA	NA	NA	SP,ST,E
Mattex 315 (W/PP)	NA	NA	0.425 (40)	0.05/160 (4),FH	4.005 (900)	0.530 (120)	1.40 (315)/15	1,2,3	SP,ST,R	NA	NA	30.7 (175)	45 (255)	NA	NA	SP,ST,R,E
PaveMatt	140 (4.1)	NA	NA	NA	NA	NA	0,450 (101)		A/O	NA	NA	NA	NA	NA	NA	A/O
GeoMatt 400 (NW/PP)	NA	NA	0.212 (70)	2.0/5704 (140),FH	1.379 (310)	0.222 (50)	0.512 (115)/50	3	SP,ST,D,E	NA	NA	NA	NA	NA	NA	F
GeoMatt 600 (NW/PP)	NA	NA	0.212 (70)	1.5/4480 (110),FH	1.824 (410)	0.267 (60)	0.712 (160)/50	2,3	SP,ST,D,E	NA	NA	NA	NA	NA	NA	F
GeoMatt 700 (NW/PP)	NA	NA	0.180 (80)	1.5/4480 (110),FH	2.335 (525)	0.378 (85)	0.912 (205)/50	1,2,3	SP,ST,D,E	NA	NA	NA	NA	NA	NA	F
GeoMatt 800 (NW/PP)	271 (8.0)	NA	0.150 (100)	1.4/3675 (90),FH	2.670 (600)	0.40 (90)	1.0 (225)/50	1,2,3	SP,ST,D,E	NA	NA	NA	NA	NA	NA	F,P
GeoMatt 1200 (NW/PP)	NA	NA	0.150 (100)	1.0/3055 (75),FH	3.115 (700)	0.445 (100)	1.335 (300)/50	1,2,3	SP,ST,D,E	NA	NA	NA	NA	NA	NA	F,P
GeoMatt 1600 (NW/PP)	542 (16.0)	NA	0.150 (100)	0.7/2037 (50),FH	3.700 (830)	0.512 (115)	1.691 (380)/50	1,2,3	SP,ST,D,E	NA	NA	NA	NA	NA	NA	F,P

Propex Geosynthetics | www.geotextile.com

Geotex 401 (NW-PP)	NA	NA	0.212 (70)	1.7/5704 (140),CH	1.379 (310)	0.222 (50)	0.534 (120)/50	3	D,SP	NA	NA	NA	NA	NA	NA	F, D, E
Geotex 451 (NW-PP)	136 (4.0)	NA	0.212 (70)	1.8/4889 (120),CH	1.112 (250)	0.200 (45)	0.445 (100)/50			NA	NA	NA	NA	NA	NA	F, D, E
Geotex 601 (NW-PP)	NA	NA	0.212 (70)	1.4/4480 (110),CH	1.824 (410)	0.267 (60)	0.712 (160)/50	2,3	D,SP,ST	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 701 (NW-PP)	NA	NA	0.212 (70)	1.5/4482 (110),CH	2.047 (460)	0.334 (75)	0.801 (180)/50	2,3	D,SP,ST	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 801 (NW-PP)	NA	NA	0.180 (80)	1.4/4480 (110),CH	2.335 (525)	0.356 (80)	0.912 (205)/50	1,2,3	E,ST,SP	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 1601 (NW-PP)	NA	NA	0.150 (100)	0.7/2037 (50),CH	4.559 (1025)	0.668 (150)	1.691 (380)/50	1,2,3	E,ST,SP	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 651 (NW-PP)	203 (6.0)	NA	0.212 (70)	1.5/4480 (110),CH	1.935 (435)	0.311 (70)	0.756 (170)/50	2,3	E,ST,SP	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 861 (NW-PP)	271 (8.0)	NA	0.180 (80)	1.5/4480 (110),CH	2.558 (575)	0.423 (95)	0.979 (220)/50	1,2,3	E,ST,SP	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 1071 (NW-PP)	339 (10.0)	NA	0.150 (100)	1.2/3463 (85),CH	3.225 (725)	0.467 (105)	1.202 (270)/50	1,2,3	E,ST,SP	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 1291 (NW-PP)	407 (12.0)	NA	0.150 (100)	0.8/2445 (60),CH	4.115 (925)	0.556 (125)	1.424 (320)/50	1,2,3	SP,ST,E	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP

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A/O = Asphalt overlay
NP = Not provided by manufacturer
NA = Not applicable, per manufacturer
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Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

Propex Geosynthetics | www.geotextile.com

Geotex 1701 (NW-PP)	542 (16.0)	NA	0.150 (100)	0.7/2037 (50), CH	5.004 (1125)	0.690 (155)	1.736 (390)/50	1,2,3	SP,ST,E	NA	NA	NA	NA	NA	NA	F, D, E, ST, SP
Geotex 200ST (W/PP)	NA	NA	0.425 (40)	0.05/163 (4), FH	3.110 (700)	0.330 (75)	0.890 (200)/12	3	SP	NA	NA	NA	NA	NA	NA	SP, ST
Geotex 250ST (W/PP)	NA	NA	0.425 (40)	0.05/160 (4), FH	3.336 (750)	0.400(90)	1.112 (250)/12	2,3	SP	NA	NA	NA	NA	NA	NA	SP, ST
Geotex 315ST (W/PP)	NA	NA	0.425 (40)	0.01/163 (4), FH	4.000 (900)	0.503 (113)	1.40 (315)/12	1,2,3	ST,SP,R	NA	NA	NA	NA	NA	NA	R, SP, ST
Geotex 350ST (W/PP)	NA	NA	0.425 (40)	0.3/815 (20), FH	5.338 (1200)	0.578 (130)	2.00 x 1.55 (450x350)/15	1,2,3	ST,SP,R	19.8 (113)	19.8 (113)	52 (300)	47.3 (270)	NA	NA	R, SP, ST
Geotex 2x2HF (W/PP)	NA	NA	0.425 (40)	0.70/2037 (50), FH	6.2 (1400)	0.556 (125)	1.40x1.40 (315x315)/15x15	1,2,3	E,D,ST,SP,R	10.8 (65)	20.5 (117)	35 (200)	35 (200)	9.2 (631)	8.65 (592)	F, SP, D, ST, R, E
Geotex 3x3HF (W/PP)	NA	NA	0.600 (30)	0.52/1630 (40), FH	7.117 (1600)	.800 x .534 (180 x 120)	2.00 x 1.55 (450x350)/15x6	1,2,3	E,D,ST,SP,R	20.3 (116)	25.4 (145)	52 (300)	52 (300)	13.7 (945)	12.8 (885)	F, SP, D, ST, R, E
Geotex 4x4HF (W/PP)	NA	NA	0.600 (30)	0.40/1220 (30), FH	9.8 (2200)	0.89 (200)	2.11x1.96 (475x440)/15x15	1,2,3	E,ST,SP,R	36.5 (209)	39 (225)	70 (400)	70 (400)	20.0 (1371)	15.54 (1065)	ST, SP, R
Geotex 4X6 (W/PP)	NA	NA	0.425 (40)	0.3/815 (20), FH	9.341 (2100)	0.801x1.223 (180x275)	1.779x2.669 (400x600)/15x15	1,2,3	E,ST,SP,R	17.5 (100)	38.5 (220)	70.1(400)	105.1 (600)	NA	NA	ST, SP, R
Geotex 104F (W/M-PP)	NA	4-6	0.212 (70)	0.28/730 (18), FH	4.226 (950)	0.445x0.267 (100x60)	1.645x1.110 (370x250) 15 x 15	2	D,E	NA	NA	NA	NA	NA	NA	E, F, D
Geotex 111F (W/M-PP)	NA	8	0.600 (30)	1.50/4685 (115), FH	3.781 (850)	0.512x0.334 (115x75)	1.645x0.979 (370x220) 15 x 15	2	D,E,F	NA	NA	NA	NA	NA	NA	E, F, D
Petromat 4597 (NW-P/PP)	156 (4.6)	NA	NA	NA	NA	NA	0.534 (120)/50	NA	A/O	NA	NA	NA	NA	NA	NA	A/O
Petromat 4598 (NW-P/PP)	140 (4.1)	NA	NA	NA	NA	NA	0.450 (101)/50	NA	A/O	NA	NA	NA	NA	NA	NA	A/O
Petromat 4599 (NW-P/PP)	122 (3.6)	NA	NA	NA	NA	NA	0.400 (90)/50	NA	A/O	NA	NA	NA	NA	NA	NA	A/O
Geotex 2130 (W/PP)	NA	NA	0.600 (30)	0.1/325 (8), FH	NA	0.289(65)	0.552 (124)/15x20	NA	D,E,F	NA	NA	NA	NA	NA	NA	D,E,F

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GlasPave 25 (N/W,O/C), (FG/PET)	136 (4.0)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 (140)*	25 (140)*	NA	NA	A/O
GlasPave 50 (N/W,O/C), (FG/PET)	237(7.0)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 (280)*	50 (280)*	NA	NA	A/O, PR

*Tensile test performed under ASTM D5035

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K = Knitted O/C = Other/combination
[2] PP = Polypropylene, PET = Polyester, * = average
[3] FH = Test is run by the falling head method
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[4] SP = Separation S/F = Silt Fence
ST = Stabilization D = Drainage
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A/O = Asphalt overlay
[5] MD = Machine direction XD = Cross-machine direction

- [6] For a minimum of 10,000 hours, extrapolated to a 75 year time period T_{ult}
[7] $LTDS = \frac{RF_{ch} \times RF_{10} \times RF_D}{RF_{ch} \times RF_{10} \times RF_D}$
 RF_{ch} = Reduction factor for creep
 RF_{10} = Reduction factor for installation damage
 RF_D = Reduction factor for durability
NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

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SP = Separation S/F = Silt Fence
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Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

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GC140(NW-P/PP)	143(4.2)	NA	NA	NA	1.24(300)	0.200(45)	0.453(102)/50	NP	NP	NA	NA	NA	NA	NA	NA	A/O
GE116(NW-P/PP)	542(16)	NA	0.150(100)	0.57/1833(45), CH	5.34(1200)	0.667(150)	1.89(425)/50	1	SP,E	NA	NA	NA	NA	NA	NA	S/F,F,D,P,E
GE160(NW-P/PP)	203(6)	NA	0.711(160)	1.63/5080(125), CH	2.0(450)	0.290(64)	0.711(160)/50	2	SP,D	NA	NA	NA	NA	NA	NA	S/F,F,D,P,E
GE180(NW-P/PP)	271(8)	NA	0.180(80)	1.26/4074(100),CH	2.67(600)	0.400(90)	1.00(225)/50	1	SP,D,ST	NA	NA	NA	NA	NA	NA	S/F,F,D,P,E
GT110(NW-P/PP)	NP	NA	0.150(100)	1.20/3251(80),CH	3.11(700)	0.444(100)	1.11(250)/50	1	SP,D,ST,E	NA	NA	NA	NA	NA	NA	S/F,F,D,E
GT116(NW-P/PP)	NP	NA	0.150(100)	0.70/2035(50),CH	4.82(1080)	0.644(145)	1.69(380)/50	1	SP,D,ST,E	NA	NA	NA	NA	NA	NA	S/F,F,D,E
GT135(NW-P/PP)	NP	NA	0.300(50)	2.0/6095(150),CH	1.18(265)	0.178(40)	0.401(90)/50	NP	NP	NA	NA	NA	NA	NA	NA	F,D,E
GT142(NW-P/PP)	NP	NA	0.212(70)	1.7/4885(120),CH	1.46(340)	0.222(50)	0.533(120)/50	3	S/F	NA	NA	NA	NA	NA	NA	F,D,E
GT160(NW-P/PP)	NP	NA	0.212(70)	1.5/4480(110),CH	1.82(410)	0.267(60)	0.711(160)/50	2	SP,D	NA	NA	NA	NA	NA	NA	S/F,F,E
GT180(NW-P/PP)	NP	NA	0.180(80)	1.35/3657(90),CH	2.38(535)	0.378(85)	0.911(205)/50	1	SP,D,ST,E	NA	NA	NA	NA	NA	NA	S/F,F,E,D
SW200(W-SF/PP)	NP	1	0.425(40)	0.05/163(4),CH	4.45(1000)	0.533(120)	1.40(315)/15	3	NP	NP	NP	NP	NP	NP	NP	NP
SW315(W/PP)	NP	1	0.425(40)	0.05/203(5),CH	3.12(700)	0.333(75)	0.90(200)/15	1	SP	NP	NP	NP	NP	NP	NP	SF

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TFI-5100 (W/PP)	160 (5.01)	NP	0.425 (40)	0.05	NA	330 (75)	0.890 (200) / 15%	NP	SP, ST	NP	NP	NP	NP	NA	NA	
TFI-3200 (W/PET)	480 (15.04)	NP	0.15	0.02	NA	NA	NP	NP	NA	60	20	200 (13700)	50 (3425)			W,S,E
TechGeo PR-20 (NW/PP)	200 (5.88)	NA	0.150 (100)	1.4 / 4200	1.8 (405)	0.27 (61)	0.65 (146) / 50 %		SP, ST, F, D, E	0.2(13.7)	0.27(18.5)	8.5(582)	10 (685)	NA	NA	
TechGeo PR-50 (NW/PP)	500 (14.7)	NA	0.090 (140)	0.6 / 1800	4.5 (1012)	0.5 (112)	1.3 (292) / 50 %		SP, ST, F, D, E	0.45(30.8)	0.6(41)	20(1370)	27(1850)	NA	NA	
TechPave-C40 (NW/PP)	140 (4.12)	NA	NA	NA	NA	NA	0.4 (90) / 42.5%		A/O	NA	NA	NA	NA	NA	NA	

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 RF_{CR} = Reduction factor for creep
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NOTE: this equation does not include other reduction factors which may apply to design. Reduction factors are site specific and should be reviewed on a per project basis. Contact the manufacturer for recommendations.

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Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
MD	XD	MD	XD													
MiraGreen D4 (NW-P)	136 (4.0)	NA	0.212 (70)	1.7/4889 (120), CH	1.1 (250)	NA	0.4x0.4 (100x100)/50x50	NA	D	NA	NA	NA	NA	NA	NA	D
Mirafi 140NC (NW-P/PP)	136 (4.0)	NA	0.212 (70)	2.0/ 5704(140), CH	1.1 (250)	0.2 x 0.2 (45x45)	0.4x0.4 (100x100)/60x60	NA	NA	NA	NA	NA	NA	NA	NA	F, D, E
Mirafi 140N (NW-P/PP)	NA	NA	0.212 (70)	1.7/5500 (135), CH	1.4 (310)	0.2 x 0.2 (50x50)	0.5x0.5 (120x120)/50x50	3	D, E, SP, ST	NA	NA	NA	NA	NA	NA	F
Mirafi 160N (NW-P/PP)	NA	NA	0.212 (70)	1.5/4481 (110), CH	1.8 (400)	0.3 x 0.3 (60x60)	0.7x0.7 (160x160)/50x50	2, 3	D, E, SP, ST	NA	NA	NA	NA	NA	NA	F
Mirafi 180N (NW-P/PP)	NA	NA	0.18 (80)	1.4/3870 (95), CH	2.2 (500)	0.4 x 0.4 (80x80)	0.9x0.9 (205x205)/50x50	1, 2, 3	D, E, SP, ST	NA	NA	NA	NA	NA	NA	F, P
Mirafi 1100N (NW-P/PP)	NA	NA	0.15 (100)	0.8/3056 (75), CH	3.1 (700)	0.4 x 0.4 (100x100)	1.1x1.1 (250x250)/50x50	1, 2, 3	D, E, SP, ST	NA	NA	NA	NA	NA	NA	F, P
Mirafi 1120N (NW-P/PP)	NA	NA	0.15 (100)	0.8/2648 (65), CH	3.6 (800)	0.5 x 0.5 (115x115)	1.3x1.3 (300x300)/50x50	1, 2, 3	D, E, SP, ST	NA	NA	NA	NA	NA	NA	F, P
Mirafi 1160N (NW-P/PP)	NA	NA	0.15 (100)	0.7/2037 (50), CH	4.5 (1000)	0.6 x 0.6 (140x140)	1.7x1.7 (380x380)/50x50	1, 2, 3	D, E, SP, ST	NA	NA	NA	NA	NA	NA	F, P
Mirafi 500X (W/SF-PP)	NA	1	0.43 (40)	0.05/204 (5), CH	3.1 (700)	0.3 x 0.3 (75x75)	0.9x0.9 (200x200)/15x10	3	SP, ST	NA	NA	NA	NA	NA	NA	NA
Mirafi 600X (W/SF-PP)	NA	1	0.43 (40)	0.05/163 (4), CH	4.0 (900)	0.5 x 0.5 (113x113)	1.4x1.4 (315x315)/12	1, 2, 3	SP, ST	NA	NA	NA	NA	NA	NA	NA
Mirafi FW402 (W/PP)	NA	10	0.43 (40)	2.1/5907 (145), CH	3.0 (675)	0.5 x 0.3 (115x75)	1.6x0.9 (365x200)/24x10	2, 3	D	7.0 (40)	8.8 (50)	35 (200)	24.5 (140)	NA	NA	E, F
Mirafi FW404 (W/PP)	NA	1	0.43 (40)	0.9/2852 (70), CH	5.1 (1150)	0.7 x 0.7 (150x165)	1.8x1.4 (400x315)/15x15	1, 2, 3	D, E	17.5 (100)	17.5 (100)	43.8 (250)	40.3 (230)	NA	NA	F
Mirafi FW500 (W/PP)	NA	4	0.30 (50)	0.5/1426 (35), CH	4.5 (1000)	0.6 x 0.7 (135x150)	1.4x1.9 (325x425)/15x15	2, 3	D	9.6 (55)	NA	32.1 (183)	43.8 (250)	NA	NA	E, F
Mirafi FW700 (W/PP)	NA	4	0.212 (70)	0.28/733 (18), CH	4.2 (950)	0.4 x 0.3 (100x60)	1.6x1.1 (370x250)/15x15	2, 3	D, E	12.3 (70)	7.0 (40)	39.4 (225)	25.4 (145)	NA	NA	F
Mirafi HP270 (W/PP)	NA	NA	0.60 (30)	0.70 / 2037 (50), CH	4.5 (1000)	0.5x0.6 (120x140)	1.3 x 1.1 (290 x 255)	2, 3	SP	17.7 (101)	19.8 (113)	38.5 (220)	35.9 (205)	NA	NA	R, ST

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		Filtration/Hydraulic Properties				Physical Properties				Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

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Mirafi HP370 (W/PP)	NA	NA	0.60 (30)	0.52/1630 (40), CH	5.8 (1300)	0.8 x 0.6 (170x125)	1.8x1.1 (400x250)/15x10	2, 3	SP	21.9 (125)	22.8 (130)	52.5 (300)	39.4 (225)	NA	NA	R, ST
Mirafi HP570 (W/PP)	NA	NA	0.60 (30)	0.40/1222 (30), CH	8.9 (2000)	0.8 x 0.8 (180x180)	2.1x2.0 (475x440)/12x6	1, 2, 3	SP	35.0 (200)	39.4 (225)	70.0 (400)	70.0 (400)	NA	NA	R, ST
Mirafi HP665 (W/PP)	NA	NA	0.43 (40)	0.26/815 (20), CH	8.9 (2000)	0.8 x 1.2 (180x275)	2.7x3.1 (600x700)/15x15	1, 2, 3	SP, ST	17.5 (100)	61.3 (350)	70.0 (400)	96.3 (550)	NA	NA	R, E
Mirafi HP770 (W/PP)	NA	NA	0.60 (30)	0.23/611 (15), CH	8.5 (1900)	1.1 x 1.3 (250x300)	2.4x2.0 (550x450) 12x6	1, 2, 3	SP, ST	52.5 (300)	52.5 (300)	105.1 (600)	84.0 (480)	NA	NA	R
Mirafi PET70/70 (W/PET)	NA	NA	0.43 (40)	0.1/407 (10), CH	NA	NA	NA	NA	NA	15.8 (90)	35.0 (200)	70.0 (400)	70.0 (400)	42.0 (240)	33.2 (190)	R
Mirafi PET100 (W/PET)	NA	NA	0.85 (20)	0.32/815 (20), CH	NA	NA	NA	NA	NA	35.0 (200)	NP	105.1 (600)	NP	63.0 (360)	49.9 (285)	R
Mirafi PET200 (W/PET)	NA	NA	0.60 (30)	0.32/2037 (50), CH	NA	NA	NA	NA	NA	87.6 (500)	NP	201.4 (1150)	NP	120.8 (690)	95.5 (545)	R
Mirafi PET300 (W/PET)	NA	NA	0.85 (20)	0.1/407 (10), CH	NA	NA	NA	NA	NA	122.6 (700)	NP	300 (1715)	NP	180.2 (1029)	148.9 (850)	R
Mirafi PET400/50	NA	NA	NA	NA	NA	NA	NA	NA	NA	140 (800)	NP	400 (2284)	50 (286)	240 (1371)	198.3 (1133)	R
Mirafi PET600/100	NA	NA	NA	NA	NA	NA	NA	NA	NA	210 (1200)	NP	600 (3427)	100 (571)	360 (2056)	297.5 (1700)	R
Mirafi S600	203 (6.0)	NA	0.18 (80)	1.5/4481 (110), CH	2.0(450)	0.3 x 0.3 (65x65)	0.7x0.7 (160x160)/50x50	NA	NA	NA	NA	NA	NA	NA	NA	ST, P
Mirafi S800	271 (8.0)	NA	0.15 (100)	1.36/4074 (100), CH	2.7 (600)	0.4 x 0.4 (90x90)	1.0x1.0 (230x230)/50x50	NA	NA	NA	NA	NA	NA	NA	NA	ST, P
Mirafi S1600	542 (16.0)	NA	0.15 (100)	0.7/2037 (50), CH	5.3 (1200)	0.6 x 0.6 (145x145)	1.9x1.9 (425x425)/50x50	NA	NA	NA	NA	NA	NA	NA	NA	ST, P
MPV 400 (NW-P/pp)	119 (3.5)	NA	NA	NA	NA	NA	0.4x0.4 (90x90)/50x50	NA	NA	NA	NA	NA	NA	NA	NA	A/O
MPV 500 (NW-P/pp)	140 (4.1)	NA	NA	NA	NA	NA	0.4x0.4 (101x101)/50x50	NA	A/O	NA	NA	NA	NA	NA	NA	A/O

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- [6] For a minimum of 10,000 hours, extrapolated to a 75 year time period
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Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
MD	XD	MD	XD													

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GlasPave® 25	136 (4.0)	N/A	N/A	N/A	N/A	N/A	1250 N/50mm (140 lb/in) / <5%*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A/O, PR
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*Tensile strength per ASTM D 5035.

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120EX (NW-PP)	NP	NP	0.21 (70)	2.2/6519 (160), FH	0.979 (220)	0.156 (35)	0.356 (80)/50	NP	NP	NP	NP	NP	NP	NP	NP	A/O, F, D
125EX (NW-PP)	NP	NP	0.21 (70)	2.1/6315 (155), FH	1.179 (265)	0.178 (40)	0.401 (90)/50	NP	NP	NP	NP	NP	NP	NP	NP	A/O, F, D
130EX (NW-PP)	NP	NP	0.21 (70)	2.0/5908 (145), FH	1.335 (300)	0.200 (45)	0.467 (105)/50	NP	NP	NP	NP	NP	NP	NP	NP	A/O, F, D
140EX (NW-PP)	NP	NP	0.21 (70)	1.8/5501 (135), FH	1.513 (340)	0.223 (50)	0.534 (120)/50	3	ST, SP, D, A/O	NP	NP	NP	NP	NP	NP	E, F
145EX (NW-PP)	NP	NP	0.21 (70)	1.5/4486 (115), FH	1.602 (360)	0.267 (60)	0.623 (140)/50	NP	ST, SP, D	NP	NP	NP	NP	NP	NP	E, F
150EX (NW-PP)	NP	NP	0.18 (80)	1.5/4482 (110), FH	1.780 (400)	0.289 (65)	0.734 (165)/50	2, 3	ST, SP, D	NP	NP	NP	NP	NP	NP	E, F
160EX (NW-PP)	NP	NP	0.15 (100)	1.5/4482 (110), FH	2.114 (475)	0.334 (75)	0.801 (180)/50	2, 3	ST, SP, D	NP	NP	NP	NP	NP	NP	E, F
180EX (NW-PP)	NP	NP	0.15 (100)	1.5/4482 (110), FH	2.380 (535)	0.356 (80)	0.912 (205)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	F, P
225EX (NW-PP)	NP	NP	0.15 (100)	1.3/3871 (95), FH	2.670 (600)	0.378 (85)	0.957 (215)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	F, P
245EX (NW-PP)	NP	NP	0.15 (100)	1.2/3463 (85), FH	3.115 (700)	0.445 (100)	1.112 (250)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F
250EX (NW-PP)	NP	NP	0.15 (100)	1.2/3463 (85), FH	3.226 (725)	0.445 (100)	1.202 (270)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F
275EX (NW-PP)	NP	NP	0.15 (100)	0.9/2648 (65), FH	3.694 (830)	0.512 (115)	1.335 (300)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F
350EX (NW-PP)	NP	NP	0.15 (100)	0.7/2037 (50), FH	4.67 (1050)	0.645 (145)	1.691 (380)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F
AOL (NW-PP)	NP	NP	NP	NP	NP	NP	.401 (90)/50	NP	NP	NP	NP	NP	NP	NP	NP	A/O
AOM (NW-PP)	NP	NP	NP	NP	NP	NP	.450 (101)/50	NP	A/O	NP	NP	NP	NP	NP	NP	A/O
AOH (NW-PP)	NP	NP	NP	NP	NP	NP	.534 (120)/50	NP	A/O	NP	NP	NP	NP	NP	NP	A/O
AOE (NW-PP)	NP	NP	NP	NP	NP	NP	.668 (150)/50	NP	A/O	NP	NP	NP	NP	NP	NP	A/O
GTF180 (W-PP)	NP	NP	0.60 (30)	0.15/407 (10), FH	1.112 (250)	0.223 (50)	0.55 x 0.45 (123x101)/15	NP	NP	NP	NP	NP	NP	NP	NP	S/F
GTF190 (W-PP)	NP	NP	0.60 (30)	0.15/407 (10), FH	1.112 (250)	0.223 (50)	0.55 x 0.45 (123x101)/15	NP	NP	NP	NP	NP	NP	NP	NP	S/F
GTF100 (W-PP)	NP	NP	0.60 (30)	0.08/228 (5.6), FH	1.558 (350)	0.178 (40)	0.67 x 0.45 (150x100)/15	NP	NP	NP	NP	NP	NP	NP	NP	SP
GTF200S (W-PP)	NP	NP	0.425 (40)	0.08/244 (6), FH	2.448 (550)	0.312 (70)	0.801 (180)/15	3	ST, SP	NP	NP	NP	NP	NP	NP	SP

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Product Name (Structure [1]/ Polymer Type [2])	Mass Per Unit Area ASTM D 5261 g/m ² (oz/yd ²)	M288 Transportation-Related Applications								Reinforcement Applications						
		Filtration/Hydraulic Properties			Physical Properties					Wide Width Tensile/Elongation ASTM D 4595 kN/m (lb/in)/%				Creep Limited Strength-MD ASTM D 5262 [6] kN/m (lb/ft)	LTDS GRI GT7-MD (in sand) [7] kN/m (lb/ft)	Other Manufacturer's Suggested Applications [8]
		Percent Open Area CWO-22125 %	Apparent Opening Size ASTM D 4751 mm (U.S. sieve)	Permittivity ASTM D 4491 sec-1 Flow Rate (FH or CH) [3] l/min/m ² (gal/min/ft ²)	Puncture ASTM D 6241 kN (lb)	Trapezoid Tearing Strength ASTM D 4533 kN (lb)	Grab Tensile/Elongation ASTM D 4632 kN (lb)/%	M288 Survivability Class	M288 Applications [4]	Strength @ 5% Strain [5]		Ultimate Strength % (Tult) [5]				
										MD	XD	MD	XD			

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GTF200 (W-PP)	NP	1	0.425 (40)	0.08/244 (6), FH	3.115 (700)	0.334 (75)	0.890 (200)/15	3	ST, SP	NP	NP	NP	NP	NP	NP	SP
GTF250 (W-PP)	NP	NP	0.425 (40)	0.05/163 (4), FH	4.005 (900)	0.400 (90)	1.110 (250)/15	2, 3	ST, SP	NP	NP	NP	NP	NP	NP	SP
GTF270 (W-PP)	NP	NP	0.425 (40)	0.05/163 (4), FH	4.116 (925)	0.445 (100)	1.201 (270)/20	2, 3	ST, SP	NP	NP	NP	NP	NP	NP	SP
GTF300 (W-PP)	NP	1	0.30 (50)	0.05/163 (4), FH	4.45 (1000)	0.512 (115)	1.401 (315)/15	1, 2, 3	ST, SP	NP	NP	30.6 (175)	30.6 (175)	NP	NP	ST, SP
GTF350 (W-PP)	NP	NP	0.50 (35)	0.150/660 (16), FH	4.45 (1000)	0.53 x 0.53 (120 x 120)	1.56 x 1.56 (350x350) 20/15	NP	NP	NP	NP	43.8 (250)	43.8 (250)	NP	NP	ST, SP, R
GTF400 (W-PP)	NP	NP	0.425 (40)	0.16/660 (16), FH	5.34 (1200)	0.60 x 0.60 (135 x 135)	1.78 x 1.78 (400x400) 20/15	NP	NP	NP	NP	58.4 (333)	58.4 (333)	NP	NP	ST, SP, R
GTF500 (W-PP)	NP	NP	0.180 (80)	0.136/368 (9), FH	6.23 (1400)	.89 x 0.89 (200 x 200)	2.67 x 2.45 (600x550) 20/15	NP	NP	NP	NP	70.1 (400)	70.1 (400)	NP	NP	ST, SP, R
GTF700 (W-PP)	NP	NP	0.180 (80)	0.109/368 (9), FH	7.57 (1700)	1.11 x 1.11 (250 x 250)	3.12 x 3.12 (700x700) 20/15	NP	NP	NP	NP	90 (514)	90 (514)	NP	NP	ST, SP, R
GTF 400E (W-PP)	NP	4 - 6	0.21 (70)	0.28/733 (18), FH	4.23 (950)	0.45 x 0.27 (100 x 60)	1.65 x 1.11 (370x250)/15	2, 3	D, E	NP	NP	40 (225)	26 (145)	NP	NP	F
GTF 400EO (W-PP)	NP	10	0.425 (40)	2.1/5908 (145), FH	3.004 (675)	0.51 x 0.33 (115 x 75)	1.62 x 0.89 (365x200)/10	3	D	NP	NP	35 (200)	24 (140)	NP	NP	E, F
GTF 404 (W-PP)	NP	NP	0.425 (40)	0.90/2852 (70), FH	5.12 (1150)	0.67 x 0.73 (150x165)	1.78 x 1.40 (400x315)/15	1, 2, 3	D, E	NP	NP	44 (250)	40 (230)	NP	NP	F
GTF 320 (W-PP)	NP	NP	0.425 (40)	0.70/2037 (50)FH	NP	0.53 x 0.56 (120x140)	1.29 x 1.14 (290x255)/20	2, 3	SP	17.5 (100)	22.8 (130)	38.5 (220)	38.5 (220)	NP	NP	R, ST
GTF370 (W-PP)	NP	NP	0.6 (30)	.52/1630 (40), FH	NP	0.76 x 0.49 (180x110)	1.78 x 1.11 (400x250)15/6	1	SP	21.9 (125)	22.8 (130)	52.5 (300)	39.4 (225)	NP	NP	R, ST
GTF 570 (W-PP)	NP	NP	0.600 (30)	0.40/1222 (30), FH	8.90 (2000)	0.80 x 0.80 (180 x 180)	2.11 x 1.95 (475x440)12/6	1, 2, 3	SP	35 (200)	39.4 (225)	70 (400)	70 (400)	NP	NP	R, ST
600EX (NW-PP)	NP	NP	0.18 (80)	1.5/4482 (110), FH	1.936 (435)	0.289 (65)	0.712 (160)/50	2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	E, F, P
800EX (NW-PP)	NP	NP	0.15 (100)	1.4/4075 (100), FH	2.559 (575)	0.401 (90)	0.979 (220)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	E, F, P
1000EX (NW-PP)	NP	NP	0.15 (100)	1.2/3463 (85), FH	3.226 (725)	0.445 (100)	1.202 (270)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F, P
1200EX (NW-PP)	NP	NP	0.15 (100)	.9/2648 (65), FH	3.694 (830)	0.534 (120)	1.380 (310)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F, P
1600EX (NW-PP)	NP	NP	0.15 (100)	0.5/1630 (40), FH	5.34 (1200)	0.645 (145)	1.891 (425)/50	1, 2, 3	ST, SP, D, E	NP	NP	NP	NP	NP	NP	P, F, P

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										MD	XD	MD	XD			

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PRM-1A (W-PP)			0.600 (30)	0.05/405 (10), FH	0.356 (80)	0.356 (80)	0.801 (180)/20	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
PRM-2 (W-PP)			0.425 (40)	0.05/162 (4), FH	0.401 (90)	0.378 (85)	0.890 (200)/20	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
PRM-2A (W-PP)			0.425 (40)	0.05/162 (4), FH	0.490 (110)	0.445 (100)	0.979 (220)/20	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
PRM-3A (W-PP)			0.425 (40)	0.05/162 (4), FH	0.534 (120)	0.534 (120)	1.202 (270)/20	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
PRM-3B (W-PP)			0.425 (40)	0.05/162 (4), FH	0.511 (115)	0.489 (110)	1.112 (250)/20	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
PRM-4A (W-PP)			0.425 (40)	0.05/162 (4), FH	0.623 (140)	0.601 (135)	1.402 (315)/20	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
PRM-5 (W-PP)			0.250 (60)	0.05/162 (4), FH	0.668 (150)	0.668 (150)	1.558 (350)/15	NP	NP	NP	NP	NP	NP	NP	NP	R,SP,ST
SF-1 (W-PP)			0.600 (30)	0.05/607 (15), FH	0.178 (40)	0.178 (40)	0.356 (80)/20	NP	NP	NP	NP	NP	NP	NP	NP	S/F
SF-2 (W-PP)			0.600 (30)	0.05/607 (15), FH	0.223 (50)	0.223 (50)	0.445 (100)/20	NP	NP	NP	NP	NP	NP	NP	NP	S/F
SF-3 (W-PP)			0.600 (30)	0.05/607 (15), FH	0.289 (65)	0.289 (65)	0.579 (130)/20	NP	NP	NP	NP	NP	NP	NP	NP	S/F

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