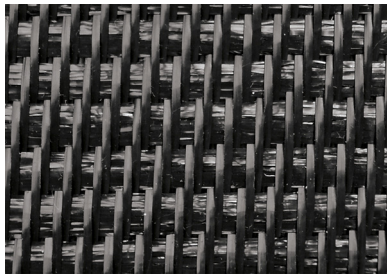




FX[®] High-Performance Polypropylene Geotextiles

CARTHAGE FX[®]-MF AND TF HIGH-PERFORMANCE SERIES OF WOVEN POLYPROPYLENE GEOTEXTILES

SEPARATION | REINFORCEMENT | FILTRATION | CONFINEMENT



SERIES DESCRIPTION

Carthage Mills' FX[®]-MF and TF High-Performance Series of woven polypropylene geotextiles were developed to deliver the higher strengths and long-term performance that cannot be achieved by typical woven slit-film geotextiles.

The FX[®]-MF and TF High-Performance Series of geotextiles are produced of 100% high-tenacity polypropylene yarns. Utilizing a variety of unique weave patterns, they are designed for separation, stabilization and reinforcement, while still providing excellent filtration and drainage in a wide range of applications from moderate to severe site conditions.

Whether the emphasis is on filtration, high tensile properties, and/or long-term performance, these versatile and durable geotextiles

can provide quick and easy solutions to other costly alternatives.

FEATURES AND BENEFITS

Carthage Mills' FX[®]-MF and TF High-Performance Series of woven polypropylene geotextiles are designed to provide cost-saving solutions in a wide range of applications and varying site conditions, making them one of the most complete and versatile lines of geosynthetics in the industry.

- SEPARATION and FILTRATION
Unique weave patterns prevent dissimilar materials from intermixing while providing free flowing drain-age assuring long-term functionality of materials.
- STABILIZATION AND REINFORCEMENT
High tensile modulus at low strains and excellent soil interaction delivers immediate support in moderate to severe conditions.
- DURABILITY
Superior resistance to installation damage assures long-term performance.
- HIGH SEAM STRENGTHS
Achieve the high seam strengths that are essential in all closure and confinement applications; and allows for seaming to run

perpendicular to the centerline in highway construction.

- COST SAVINGS
When low-cost and high performance is combined, savings in *structural materials* and *labor costs* can be as much as 35-40%.

APPLICATIONS

The combination of strengths, durability and filtration/flow characteristics make the Carthage FX[®]-MF and TF High-Performance Series of woven geotextiles uniquely versatile in their ability to deliver in:

- Base Course Reinforcement for highways, railways, roads, and parking lots.
- Reinforcement for Mechanically Stabilized Earth (MSE) structures or walls
- Embankments and Dikes on soft soils and foundations
- Voids Bridging in landfills (liner support), highways and runways
- Reinforcement in steepened slopes
- Capping/Closures in landfills and other hazardous waste sites
- Erosion Control; shoreline protection under large riprap
- Containment





■ FX[®]-MF and TF High-Performance Geotextiles

Carthage Mills' FX[®]-MF and TF Series of High-Performance woven geotextiles are produced of 100% high-tenacity polypropylene yarns, are inert to biological degradation, and resistant to naturally encountered chemicals, alkalis and acids.

PROPERTY	ASTM TEST	UNIT	FX [®] -200MF	FX [®] -270MF	FX [®] -270TF	FX [®] -300MF	FX [®] -320TF	FX [®] -370MF	FX [®] -370TF	FX [®] -400MF	FX [®] -400TF
□ Mechanical/Performance											
Wide Width Tensile Ultimate	D 4595	lbs/in	200	220 x 205	250	300	333 x 300	300 x 225	350 x 340	400	430 x 425
		lbs/ft	2400	2640 2460	3000	3600	3996 3600	3600 2700	4200 4080	4800	5160 5100
Wide Width Elongation @ Ult.		%	12 x 8	10 x 9	12 x 8	15 x 10	12 x 10	NP	11 x 7	9	11 x 8
Wide Width Tensile @ 2%		lbs/in	NP	40 x 49	40 x 65	NP	45 x 45	45 x 45	63 x 103	80 x 110	49 x 115
Wide Width Tensile @ 5%			65 x 117	101 x 113	110 x 147	116 x 145	113 x 113	125 x 130	159 x 222	200 x 225	169 x 254
Wide Width Tensile @ 10%			NP	195 x 200	225 x 250	NP	200 x 200	200	315 x 340	400	375 x 425
□ Mechanical/Index											
Grab Tensile Strength	D 4632	lbs	315	290 x 255	387 x 350	450 x 350	350 x 350	400 x 250	430 x 400	475 x 440	600 x 550
Grab Tensile Elongation		%	15	15	24 x 18	15 x 6	15	15 x 10	21 x 16	12 x 6	20 x 15
Mullen Burst	D 3786	psi	800	650	800	1000	1000	800	1000	1200	1350
Trapezoidal Tear	D 4533	lbs	125	120 x 140	125	180 x 170	150	170 x 125	145 x 135	180	230 x 200
Puncture	D 4833		140	120	169	180	180	180	211	200	230
CBR Puncture	D 6241		NP	1000	1000	1600	1000	1300	1200	2000	1400
□ Endurance											
UV Resistance	D 4355	%	80	80	80	80	70	80	80	80	80
□ Hydraulics/Filtration											
Permittivity	D 4491	sec ⁻¹	0.70	0.70	0.21	0.52	0.70	0.52	0.21	0.40	0.13
Water Flow Rate		gpm/ft ²	50	50	15.5	40	45	40	15.5	30	15
Apparent Opening Size (AOS)	D 4751	US Std Sieve	40	30	35	30	30	30	40	30	80
□ Physical											
Standard Roll Sizes Packaging Weight	Measured (Typical)	ft yd ² lbs	15 x 300 500 260	13.1 x 164 239 102	15 x 300 500 231	12.5 x 360 500 338	15 x 300 500 312	15 x 300 500 266	15 x 300 500 304	15 x 300 500 475	15 x 300 500 398
		ft yd ² lbs	— —	— —	17.1 x 327 622 287	15 x 300 500 342	— —	— —	17.1 x 327 622 379	— —	17.1 x 327 622 490

- Unless otherwise stated, all values stated here are Minimum Average Roll Values (MARV), are calculated as the Typical minus two standard deviations and are based on a 97.7% confidence level.
- The properties reported above are effective 04/09/10 and are subject to change without notice.

NOTE: Carthage Mills has additional High-Performance geotextiles not listed above; i.e. FX[®]-400/600MF which was designed specifically for Capping/Closure applications requiring high 'seam strengths'. Please call or e-mail for additional information.

Seller makes no warranty, expressed or implied, concerning the product furnished hereunder other than at the time of delivery it shall be of the quality and specification stated herein. Any implied warranty of fitness for a particular purpose is expressly excluded, and, to the extent that it is contrary to the foregoing sentence, any implied warranty of merchantability is expressly excluded. Any recommendations made by seller concerning the uses or applications of said product are believed reliable and seller makes no warranty of results to be obtained. If the product does not meet Carthage Mills current published specifications, and the customer gives notice to Carthage Mills before installing the product, then Carthage Mills will replace the product without charge or refund the purchase price.