



Long Term Filtration and Drainage

Woven “Monofilament” Geotextiles

Woven monofilament geotextiles can provide 'long term' solutions for nearly any drainage/filtration application, thus making them the filter fabric of choice for bulkheads, subsurface drainage systems and under hard armor. Effective levels of *Percent Open Area*, a property found critical to long term filtration, are unique to woven monofilaments. Values $\geq 4\%$ indicate that a sufficient quantity of 'direct paths' through the fabric exist to allow for the release of troublesome migrating fines. The subsequent formation of a free flowing *filter cake* against the surface of a free flowing *filter fabric* is the designers' insurance against long term clogging of their systems.



Erosion Control/ Bulkheads



Leachate Filtration/Collection



Channels

Carthage Mills' woven monofilaments were America's *first* filter fabrics and the *only* ones that have been used successfully for more than 50 years. They can be found in literally tens of thousands of projects designed and managed by the US Army Corps of Engineers, all levels of foreign and local governments, and private entities around the world. Carthage Mills can quickly fabricate custom widths and lengths for your specific project thereby reducing waste and installation times.

(Partial Listing)

PROPERTY	ASTM METHOD	UNITS	Carthage 6%™	Carthage 15%™	Carthage 30%™	Carthage 4%HD™
<input type="checkbox"/> Hydraulics/Filtration						
Apparent Opening Size	D 4751	US Std Sieve	70	30 - 40	20 - 30	40 - 50
Percent Open Area	CW-02215¹	%	4 - 6%	11 - 15%	20 - 30%	2 - 5%
Permittivity	D 4491	sec ¹	0.28	2.10	1.50	0.90
Flow Rate		gpm/ft ²	18	145	200	70
<input type="checkbox"/> Mechanical						
Grab Tensile	D 4632	lbs	370 x 250	365 x 200	255 x 275	400 x 315
Grab Tensile Elongation		%	15%	15%	15%	15%
Mullen Burst	D 3786	psi	450	450	420	800
Puncture	D 4833	lbs	120	90	135	150
Trapezoidal Tear	D 4533	lbs	100 x 60	115 x 75	40 x 50	150 x 165
<input type="checkbox"/> Endurance						
UV Resistance	D 4355	%	90%	90%	90%	90%

¹ This is not an ASTM test but rather a USACOE document that describes the test.

- Please see papers entitled *Why Percent Open Area?* and *Independent Research on Fabric Clogging* included with our information package.
- The properties reported above are effective 02/01/09 and are subject to change without notice.

Distributed By:

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