



## Carthage 12%-HD™

Carthage 12%-HD™ is a woven geotextile of 100% high-tenacity, monofilament polypropylene yarns which are woven into a stable network such that they retain their relative position. Carthage 12%-HD™ is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

The Carthage Mills' line of monofilament geotextiles feature unique physical, hydraulic and filtration properties – in particular "Percent Open Area" – making them the premier choice for most any application where *long-term* filtration/drainage is critical.

PROPERTY	TEST METHOD	DATA	
		METRIC	ENGLISH
<input type="checkbox"/> <b>Mechanical</b>			
Grab Tensile Strength	ASTM D 4632	1.78 x 1.49 kN	400 x 335 lbs
Garb Tensile Elongation		20 x 15%	
Wide Width Tensile Strength	ASTM D 4595	40.28 x 39.41 kN/m	230 x 225 lbs/in 2760 x 2700 lbs/ft
Mullen Burst	ASTM D 3786	4481 kPa	650 psi
Trapezoidal Tear	ASTM D 4533	0.65 x 0.56 kN	145 x 125 lbs
Puncture	ASTM D 4833	0.56 kN	125 lbs
CBR Puncture	ASTM D 6241	NA	NA
<input type="checkbox"/> <b>Endurance</b>			
UV Resistance	ASTM D 4355	90% @ 500 hrs	
<input type="checkbox"/> <b>Hydraulics / Filtration</b>			
Permittivity <sup>(1)</sup>	ASTM D 4491	1.50 sec <sup>-1</sup>	
Water Flow Rate <sup>(1)</sup>		4686 lpm/m <sup>2</sup>	115 gpm/ft <sup>2</sup>
Percent Open Area	CW-02215	10-14%	
Apparent Opening Size (AOS) <sup>(1)</sup>	ASTM D 4751	0.600-0.425 mm	30-40 US Std. Sieve
<input type="checkbox"/> <b>Physical</b>			
Standard Roll Sizes / Packaging / Weight (Custom fabrication and packaging are available.)	Measured (Typical)	3.81 m x 91.44 m 348.7 m <sup>2</sup> 100.3 kg	12.5 ft x 300 ft 417 yd <sup>2</sup> 221 lbs

<sup>(1)</sup> At the time of manufacturing. Handling, storage and shipping may change these properties.

- 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 01/05/09 and are subject to change without notice.

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.