



■ Carthage 4%-HD™

Carthage 4%-HD™ is a woven monofilament geotextile of 100% high-tenacity, monofilament polypropylene yarns which are woven into a stable network such that they retain their relative position. Carthage 4%-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.

AASHTO M 288-06: Carthage 4%-HD™ exceeds the geotextile requirements for SUBSURFACE DRAINAGE/CLASSES 2 & 3 (WOVEN – PERCENT 'IN-SITU' SOIL PASSING 0.075 MM = <15) and PERMANENT EROSION CONTROL/CLASSES 1 & 2 (WOVEN – PERCENT 'IN-SITU' SOIL PASSING 0.075 MM = <15).

PROPERTY	TEST METHOD	DATA	
		METRIC	ENGLISH
<input type="checkbox"/> Mechanical			
Grab Tensile Strength	ASTM D 4632	1.78 x 1.40 kN	400 x 315 lbs
Grab Tensile Elongation		15%	
Wide Width Tensile Strength	ASTM D 4595	43.78 x 48.28 kN/m	250 x 230 lbs/in 3000 x 2760 lbs/ft
Mullen Burst	ASTM D 3786	5506 kPa	800 psi
Trapezoidal Tear	ASTM D 4533	0.67 x 0.73 kN	150 x 165 lbs
Puncture	ASTM D 4833	0.67 kN	150 lbs
CBR Puncture	ASTM D 6241	5.12 kN	1150 lbs
<input type="checkbox"/> Endurance			
UV Resistance	ASTM D 4355	90% @ 500 hrs	
<input type="checkbox"/> Hydraulics / Filtration			
Permittivity ⁽¹⁾	ASTM D 4491	0.90 sec ⁻¹	
Water Flow Rate ⁽¹⁾		2851 lpm/m ²	70 gpm/ft ²
Percent Open Area	CW-02215	2-5%	
Apparent Opening Size (AOS) ⁽¹⁾	ASTM D 4751	0.425-0.300 mm	40-50 US Std. Sieve
<input type="checkbox"/> Physical			
Standard Roll Sizes / Packaging / Weight (Custom fabrication and packaging are available.)	Measured (Typical)	4.57m x 91.44 m 418 m ² 132.5 kg	15.0 ft x 300 ft 500 yd ² 292 lbs

⁽¹⁾ 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 07/14/09 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.