



■ Carthage 12%HD™

Carthage 12%HD is a woven filtration geotextile made of high-tenacity, monofilament polypropylene yarns which are woven into a stable network such that they retain their relative position. Carthage 12%HD is part of the [Carthage % Open Area Series](#) of woven monofilament filtration geotextiles, is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

PROPERTY	TEST METHOD	DATA	
		METRIC	ENGLISH
<input type="checkbox"/> Mechanical			
Grab Tensile Strength	ASTM D 4632	1.78 x 1.49 kN	400 x 335 lbs
Grab 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
Trapezoidal Tear	ASTM D 4533	0.65 x 0.56 kN	145 x 125 lbs
CBR Puncture	ASTM D 6241	5.56 kN	1250 lbs
<input type="checkbox"/> Endurance			
UV Resistance	ASTM D 4355	90% @ 500 hrs	
<input type="checkbox"/> Hydraulics / Filtration			
Permittivity ⁽¹⁾	ASTM D 4491	1.50 sec ⁻¹	
Water Flow Rate ⁽¹⁾		4686 lpm/m ²	115 gpm/ft ²
Percent Open Area	CW-02215	8-12%	
Apparent Opening Size (AOS) ^{(1) (2)}	ASTM D 4751	0.600 mm	30 US Std. Sieve
<input type="checkbox"/> Physical			
Standard Roll Sizes / Packaging / Weight (Custom fabrication and packaging are available.)	Measured (Typical)	3.81 m x 91.44 m 348.7 m ² 103 kg	12.5 ft x 300 ft 417 yd ² 228 lbs
		4.6 m x 91.5 m 418 m ² 147.4 kg	15 ft x 300 ft 500 yd ² 325 lbs

NOTES: Mullen Burst Strength ASTM D 3786 is no longer recognized by ASTM D35 on Geosynthetics. Puncture Strength ASTM D 4833 is not recognized by AASHTO M 288 and has been replaced with CBR Puncture ASTM D 6241.

- ⁽¹⁾ At the time of manufacturing. Handling, storage and shipping may change these properties.
- ⁽²⁾ AOS, typically referred to as a MARV, is actually reported as a MAXIMUM allowable opening when in English US Sieve units; or as the SMALLEST allowable opening when in Metric units (mm).
 - Unless otherwise stated, all values stated here are Minimum Average Roll Values (MARV).
 - The properties reported above are effective 01-01-2022 and are subject to change without notice.

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