



## ■ Carthage 15%™

Carthage 15% 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 15% 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"/> <b>Mechanical</b>			
Grab Tensile Strength	ASTM D 4632	1.62 x 0.89 kN	365 x 200 lbs
Grab Tensile Elongation		24% x 10%	
Trapezoidal Tear	ASTM D 4533	0.51 x 0.33 kN	115 x 75 lbs
CBR Puncture	ASTM D 6241	3.00 kN	675 lbs
<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	2.10 sec <sup>-1</sup>	
Water Flow Rate <sup>(1)</sup>		5907 lpm/m <sup>2</sup>	145 gpm/ft <sup>2</sup>
Percent Open Area	CW-02215	10-15%	
Apparent Opening Size (AOS) <sup>(1) (2)</sup>	ASTM D 4751	0.425 mm	40 US Std. Sieve
<input type="checkbox"/> <b>Physical</b>			
Standard Roll Sizes / Packaging / Weight (Custom fabrication and packaging are available.)	Measured (Typical)	1.83 m x 91.5 m 167 m <sup>2</sup> 39.6 kg	6.0 ft x 300 ft 200 yd <sup>2</sup> 87.5 lbs
		3.65 m x 91.44 m 334.4 m <sup>2</sup> 79 kg	12.0 ft x 300 ft 400 yd <sup>2</sup> 175 lbs
		3.81 m x 91.44 m 348.39 m <sup>2</sup> 81 kg	12.5 ft x 300 ft 416.7 yd <sup>2</sup> 178 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 01-01-2023 and are subject to change without notice.

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