

MONOFILAMENT GEOTEXTILES

Monofilament geotextiles are unique high-strength geotextiles. They are used in applications where high water flow rates are required, such as flowing rivers and along shorelines with tidal action.

These engineered filtration geotextiles are designed for long-term performance in problematic soil or site conditions to ensure clogging resistance, soil retention in erosion control, and subsurface drainage applications. Woven from polypropylene monofilaments, they allow water to pass freely while preventing contamination of the base material and adding tensile properties to the soil.

April 2023

Monofilament Geotextiles – US Values

Material Properties	Style	Test Method	Unit	FW300	FW402	FW403	FW404	FW500	FW700
	Grab Tensile Strength MD/CD	ASTM D4632	lbs	400 / 335	365 / 200	425 / 350	400 / 320	375 / 375	370 / 250
	Grab Tensile Elongation MD/CD	ASTM D4632	%	20 / 15	24 / 10	21 / 21	15 / 15	15 / 8	15 / 15
	Trapezoidal Tear MD/CD	ASTM D4533	lbs	145 / 125	115 / 75	145 / 125	150 / 165	120 / 120	100 / 60
	CBR Puncture	ASTM D6241	lbs	1250	675	1340	1150	1200	950
	UV Resistance (at 500 hours) ²	ASTM D4355	% of strength retained	90	90	90	90	90	90
	Percent Open Area ³	COE-02215	%	8	10	6	1	3	4
	Permittivity ³	ASTM D4491	sec ⁻¹	1.50	2.1	0.96	0.90	0.20	0.28
	Apparent Opening Size (AOS) ¹	ASTM D4751	U.S. Sieve	30	40	40	40	50	70
	Water Flow Rate ³	ASTM D4491	gal/min/f t ²	115	145	70	70	15	18
Roll Size		ft	12.5 x 300	12.5 x 300	12.5 x 300	15 x 300	15 x 300	12 x 300	
Roll Weight		lbs	221	169	243	292		164	

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Monofilament Geotextiles – Metric Values

Style	Test Method	Unit	FW300	FW402	FW403	FW404	FW500	FW700
Grab Tensile Strength MD/CD	ASTM D4632	N	1780/1491	1624/890	1891/1402	1780/1402	1669/1669	1647/1113
Grab Tensile Elongation MD/CD	ASTM D4632	%	20 / 15	24 / 10	21 / 21	15 / 15	15 / 8	15 / 15
Trapezoidal Tear MD/CD	ASTM D4533	N	645 / 556	512 / 334	645 / 556	668 / 734	534 / 534	445 / 267
CBR Puncture	ASTM D6241	N	5563	3004	5963	5118	5340	4228
UV Resistance (at 500 hours) ²	ASTM D4355	% of strength retained	90	90	90	90	90	90
Percent Open Area ³	COE-02215	%	8	10	6	1	3	4
Permittivity ³	ASTM D4491	sec ⁻¹	1.50	2.1	0.96	0.90	0.20	0.28
Apparent Opening Size (AOS) ¹	ASTM D4751	mm	0.60	0.425	0.425	0.425	0.30	0.212
Water Flow Rate ³	ASTM D4491	l/min/m ²	4685	5907	2852	2852	611	733
Roll Size		m	3.8 x 91.4	3.8 x 91.4	3.8 x 91.4	4.57 x 91.4	4.57 x 91.4	3.7 x 91.4
Roll Weight		kg	100	77	110	132		74

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