PRODUCT SELECTION GUIDE

FIBER-LINE™

High Performance Synthetic Fibers

AVIENT™

FIBER-LINE™ HIGH PERFORMANCE SYNTHETIC FIBERS

	Kevlar® Para-Aramid		Nomex® Meta-Aramid	Vectran® LCP		Zylon® PBO		Carbon Fiber	UHMWPE		PET Polyester		Fiberglass		Novoloid	Technora® Filament Yarn
TECHNICAL PROPERTIES	Standard Modulus	High Modulus	Standard Modulus	Standard Modulus	High Modulus	Standard Modulus	High Modulus	Standard Modulus	Standard Modulus	High Modulus	High Tenacity	Low Shrink	E-Glass	S-Glass	Standard Modulus	Standard Modulus
Breaking Tenacity (g/d)	23.0	23.6	5.0	23.0	30.0	42.0	42.0	23.0	28.0	38	9.3	8.4	6.0 - 7.3	6.7 - 9.4	1.5	28.0
Specific Gravity (Ratio)	1.44	1.44	1.38	1.40	1.40	1.54	1.56	1.80	0.97	0.97	1.38	1.38	2.58	2.48	1.27	1.39
Elongation at Break (%)	3.5	2.5	30.0	3.8	2.8	3.5	2.5	1.5	3.5	3.1	14.6	19.5	3.5	5.5	30.0 - 40.0	4.6
Tensile Modulus (g/d)	555	885	125	600	830	1200	1800	1480	850	1250	120	70	200–275	140–170	2.5–5.0	590
Equilibrium Moisture Regain at 55% RH (%)	5.0	5.0	4.5	<0.1	<0.1	2.0	0.6	0	<0.1	<0.1	0.4	0.4	<0.03	<0.03	6.0	2.0
Creep at 40–48% ult tensile strength (%)	<0.03	<0.03	–	<0.4	<0.4	0	0	0	1.7–5.0	1.7–5.0	1.0–12.0	1.0–12.0	10.0–20.0	5.0–15.0	–	<1.5
Shrinkage: dry air 177°C 30 mins (%)	<0.02	<0.02	0.4	<0.20	<0.20	<1.0	<1.0	0	Melts	Melts	8.0 - 15.0	3.0 - 8.0	0	0	<0.1	<0.1
Melt Point (°C)	–	–	–	350	350	–	–	–	135	135	256	256	846	1056	–	–
Decomposition Temp (°C)	425–480	425–480	750	–	–	650	650	400	–	–	–	–	–	–	150–250	500
RELATIVE PERFORMANCE PROPERTIES																
Abrasion Resistance	✔		✔	✔		○		○	✔		✔		✘		○	✔
Yarn on Yarn Abrasion	○		✘	✔		✘		✘	✔		✔		✘		✔	○
Ultraviolet (UV) Resistance	✘		✔	✘		✘		✔	✔		✔		○		✔	✘
Flame Resistance	✔		✔	✔		✔		✔	✘		✘		✔		✔	✔
Chemical Resistance (Acid)	✔		✔	✔		○		✔	✔		✔		✔		✔	✔
Chemical Resistance (Alkali)	✔		✔	✔		○		✔	✔		○		✔		✔	✔
Chemical Resistance (Organic Solvent)	✔		✔	✔		✔		✔	✔		✔		✔		✔	✔
High Temperature Resistance	○		✔	✘		○		✔	✘		○		✔		✘	○

MOVING HIGH PERFORMANCE FIBERS FORWARD

Knowledge of fiber technology is the essence of what we offer to our customers. Since 1987, we have processed a myriad of high performance synthetic fibers for a wide variety of markets and applications. We strive to pass our fiber knowledge, expertise, and decades of experience on to our customers.

Contact us today to determine the fiber-based solution that is right for your product.

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