FIBER INFORMATION CHART

As a leader in fiber and yarn conversion, Atkins & Pearce maintains one of the world's most diverse set of fiber offerings under one roof. Below are some common fibers we have thorough understanding and experience handling, as well as, capability of both pre-processing and post-processing to enhance the natural properties of the raw fiber.

FIBER GROUP	TRADE NAME	TENACITY (g/D)	ELONGATION (%)	SPECIFIC GRAVITY (g/cm3)	MOISTURE REGAIN (@ 70°F and 65% rh)	MELTING POINT (°F)	RESISTANCE[1]			
							to ABRASION	to UV LIGHT	to ACIDS	to ALKALIS
Ultra-high-molecular-weight polyethylene (UHMWPE)	Dyneema®	23.1 - 45.0	3.5 - 4.4	0.975	None	152 - 300	Excellent	Very Good	Excellent	Excellent
	Spectra®	30.0 - 35.0	2.7 - 3.6	0.97	None	290	Excellent	Very Good	Excellent	Excellent
Polyester	Polyester - RT	2.8 - 5.6	24.0 - 42.0	1.38	0.4	480	Excellent	Very Good	Fair	Fair
	Polyester - HT	6.8 - 9.5	12.0 - 25.0	1.38	0.4	480	Excellent	Very Good	Fair	Fair
Liquid-Crystal Polymer (LCP)	Vectran®	28.0	4.3	1.38	0.4	625	Excellent	Poor	Excellent	Excellent
Nylon	Nylon 6 - RT	4.0 - 7.2	17.0 - 45.0	1.14	2.8 -5.0	419 - 430	Excellent	Good	Poor	Excellent
	Nylon 6 - HT	6.5 - 9.2	16.0 - 24.0	1.14	2.8 -5.0	419 - 430	Excellent	Good	Poor	Excellent
	Nylon 6,6 - RT	2.3 - 6.0	25.0 - 65.0	1.14	4.5	480 - 500	Excellent	Good	Poor	Excellent
	Nylon 6,6 - HT	5.9 - 9.8	15.0 - 28.0	1.14	4.5	480 - 500	Excellent	Good	Poor	Excellent
Polypropylene (PP)	Various	2.5 - 9.0	18.0 - 28.0	0.91	0.2	320	Good	Poor	Excellent	Excellent
Cotton	Various	3.0 - 4.9	3.0 - 9.5	1.27	7.0	N/A	Poor	Excellent	Poor	Poor
Fiberglass	S-2 Glass®	2.2	5.7	2.48	Less than 1	1,600	Poor	Excellent	Good	Good
	E-Glass	1.7	4.8	2.54	None	1,400	Poor	Excellent	Fair	Fair
	C-Glass	1.5	4.8	2.49	None	1,400	Poor	Excellent	Good	Good
	Silica	1.7	1.4	2.00	None	3,000	Poor	Excellent	Fair	Fair
	Quartz	1.7	4.6	2.20	None	3,000	Poor	Excellent	Good	Good
Aramids	Twaron®	23.0	3.4	1.44	7.0	930	Good	Fair	Fair	Good
	Technora®	28.0	4.6	1.39	2.0	930	Good	Fair	Fair	Good
	Kevlar®	22.0 - 25.0	2.0 - 3.4	1.44	7.0	900 - 930	Good	Fair	Fair	Good
	Nomex®	4.5	22.0	1.38	4.5	700	Good	Fair	Good	Good
Rayon	Filament-RT	1.9 - 2.3	22.0	1.50	11.0	325	Poor	Good	Fair	Fair
	Filament-HT	4.9 - 5.3	12.0	1.50	11.0	300	Excellent	Excellent	Poor	Poor
Polybenzimidazole (PBI)	Various	2.8	25.0	1.43	15.0	860	Good	Good	Excellent	Excellent
Polyphenylene Sulfide (PPS)	Ryton®	3.0	35.0	1.37	0.6	545	Excellent	Excellent	Good	Good
	Torcon®	4.4	0.7	1.52 - 1.62	6.0	545	Excellent	Excellent	Excellent	Excellent
Ethylene Chlorotrifluoroethylene (ECTFE)	Halar®	2.0	20.0	1.68	Less than 0.1	428	Excellent	Excellent	Excellent	Excellent
Polytetrafluoroethylene (PTFE); PFA	Teflon®	0.8	50.0	2.10	0.0	590	Excellent	Excellent	Excellent	Excellent

NOTES: 1) Resistance classification of Poor, Fair, Good, Very Good, or Excellent.

2) Atkins & Pearce Fiber Information Chart Revision Date: 9/28/2020.

We're proud to share our fiber expertise to help you determine exactly what fiber is right for you.

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