

Fiber Properties

Fiber Type	Density (g/cc)	Moisture Regain (%)	Elongation at Break (%)	Breaking Tenacity (g/Denier)	Initial Modulus (CN/tex)	Thermal Shrinkage (@ 177 C)	L.O.I.	Melting Point (C/F)
Nylon	1.14	2.8 to 5.0	17 to 45	4.0 to 7.2	400	N/A	-	216/419
Polyester (PET)	1.38	0.4	15.3	9.2	998	11.6	-	256/493
Kevlar 29®	1.44	7	3.6	23	4,900	< 0.1	28	427/800 T
Kevlar 49®	1.44	3.5	2.4	23.6	7,814	< 0.1	28	427/800 T
Nomex®	1.38	4.5	28	4.9	839	0.4	29-30	371/700 T
Vectran®	1.41	< 0.1	3.3	23	4,635	< 0.5	35	330/625
Technora®	1.39	2	4.6	28	5,209	< 0.5	35	330/625
Twaron®	1.44	6.5	3.6	22.3	4,900	< 0.1	25	500/932 T
Carbon / Graphite	1.77	None	1	21.3	-	< 0.1	-	315/600 T
Fiberglass								
e - glass	2.54	None	4.8	15.3	2,900	< 0.1	-	1121/2050
s - glass	2.48	None	5.7	19.8	3,500	< 0.1	-	1493/2719
PBI	1.43	15	28.5	2.7	280	< 0.1	41	460/860 T
PTFE (Teflon)	2.1	None	35	1.7	110	7	N/A	327/621 TT
Spectra® / Dyneema®	0.97	< 0.1	2.7-3.5	26 to 34	10,595	N/A	-	147/297

T – Does not melt, begins to decompose

TT – Does not melt, but begins to Gel

Source - Producers Literature