

Polyamide Paper Data Sheet

Property	Unit	.05 mil 12.7µm	1 mil 25µm	2 mil 50µm	3 mil 75µm	5 mil 125µm	Test Method
Ultimate Tensile Strength at 23°C, (73°F) at 200°C (392°F)	psi (MPa)	33,500 (231) 20,000 (138)	33,500 (231) 20,000 (138)	33,500 (231) 20,000 (138)	33,500 (231) 20,000 (138)	33,500 (231) 20,000 (138)	ASTM D-882-91, Method A*
Ultimate Elongation at 23°C, (73°F) at 200°C (392°F)	%	65 68	72 83	72 83	78 83	82 83	ASTM D-882-91, Method A
Tensile Modulus at 23°C, (73°F) at 200°C (392°F)	psi (GPa)	400,000 (2.76) 160,000 (1.10)	400,000 (2.76) 290,000 (2.0)	400,000 (2.76) 290,000 (2.0)	400,000 (2.76) 290,000 (2.0)	400,000 (2.76) 290,000 (2.0)	ASTM D-882-91, Method A
Density	g/cc	1.42	1.42	1.42	1.42	1.42	ASTM D-1505-90
MIT Folding Endurance	cycles	>285,000	285,000	55,000	6,000	5,000	ASTM D-2176-89
Tear Strength-propagating (Elmendorf), N (lbf)	NA	0.07 (0.02)	0.21 (0.02)	0.38 (0.02)	0.58 (0.02)		ASTM D-1922-89
Tear Strength, Initial (Graves), N (lbf)	3.5 (1.6)	7.2 (1.6)	16.3 (1.6)	26.3 (1.6)	46.9 (1.6)		ASTM D-1004-90
Yield Point at 3% at 23°C, (73°F) at 200°C (392°F)	MPa (psi)	69 (10,000) 41 (6,000)	69 (10,000) 41 (6,000)	69 (10,000) 41 (6,000)	69 (10,000) 41 (6,000)	69 (10,000) 41 (6,000)	ASTM D-882-91
Stress to produce 5% elong. at 23°C, (73°F) at 200°C (392°F)	MPa (psi)	90 (13,000) 62 (9,000)	90 (13,000) 62 (9,000)	90 (13,000) 62 (9,000)	90 (13,000) 62 (9,000)	90 (13,000) 62 (9,000)	ASTM D-882-92
Impact Strength at 23°C, (73°F)	N · cm · (ft lb)	78 (0.58)	78 (0.58)	78 (0.58)	78 (0.58)	78 (0.58)	DuPont Pneumatic Impact Test
Coefficient of Friction, kinetic (film-to-film)	0.48	0.48	0.48	0.48	0.48	0.48	ASTM D-1894-90
Coefficient of Friction, static (film-to-film)	0.63	0.63	0.63	0.63	0.63	0.63	ASTM D-1894-90
Refractive Index (sodium D line)	1.70	1.70	1.70	1.70	1.70	1.70	ASTM D-542-90
Poisson's Ratio	0.34	0.34	0.34	0.34	0.34	0.34	Avg: three samples, elongated at 5, 7, 10%
Low temperature flex life	pass	pass	pass	pass	pass	pass	IPC-TM-650, Method 2.6.18

*Specimen size 25 x 150 mm (1.6 in), jaw separation 100 mm (4 in), jaw speed 50mm/min (2 in/min), Ultimate refers to the tensile strength and elongation measured at break.