



PCTFE Properties

Property	ASTM Method	Unit	M-300P	M-400H
Mechanical/Physical				
Zero Strength Time	D-1430	seconds	200-300	301-450
Specific Gravity	D-792	g/cm ³	2.11-2.17	2.11-2.17
Water Absorption, 24 Hr.	D-570	%	0	0
Tensile Strength, 23°C	D-638	psi	4,640-5,365	4,860-5,710
Elongation, 23°C	D-638	%	50-200	100-250
Compressive Strength, 23°C at 0.2% offset	D-695	psi	5,710-6,430	5,280-6,000
Compressive Strength, 23°C at 1% Strain	D-695	psi	1,710-2,000	1,570-1,860
Impact Strength, 23°C, Notched Izod	D-256	ft-lb/in	2.5-3.5	2.5-3.5
Flexural Strength	D-790	psi	9,860-10,600	9,570-10,300
Durometer Hardness, Shore D	D-2240	D	85-95	85-95
Deformation Under Load, 25°C, 24 hrs/70/kg	D-621	%	£ 0.2	£ 0.2
Thermal				
Melting Point	D-1430	°C	210-212	210-212
Deflection Temperature (66 PSI)	D-648	°C	126	126
Maximum Service Temperature		°C	193	193
Thermal Conductivity		Btu/ft-hr-°F	1.45	1.45
Thermal Expansion (+ 30°C to -30°C)	D-696	cm/cm/°C	7.0 X 10 ⁻⁵	7.0 X 10 ⁻⁵
Thermal Expansion (- 30°C to -100°C)	D-696	cm/cm/°C	5.1 X 10 ⁻⁵	5.1 X 10 ⁻⁵
Flammability	D-635		non-flammable	non-flammable
Electrical				
Surface Resistivity, 100% R.H.	D-257	ohm-sq	1015	1015
Volume Resistivity, 50% R.H.	D-257	ohm-cm	2 X 10 ¹⁷	2 X 10 ¹⁷
Dielectric Strength, (68 mil film)	D-149	Volts/mil	500	500
Dielectric Constant, 23°C, 103 Hz	D-150		2.6	2.6
Dissipation Factor, 23°C, 103 Hz	D-150		0.02	0.02
Arc Resistance	D-495	seconds	360	360