



PTFE/PEEK/PVDF Properties					
Property	Unit	ASTM or UL Test	PTFE	PEEK	PVDF
PHYSICAL					
Density	lb/in. ³ g/cm ³	D729	0.078 (2.2)	0.047 (1.31)	0.064 (1.77)
Water Absorption	24 hr.(%)	D570	<0.01	0.1	0.03
MECHANICAL					
Strength/Weight Ratio	g/cc	Tensile Strength/Density	1800	12200	4000
Tensile Strength	psi	D638	3,900	16,000	7,000
Tensile Modules	psi	D638	80,000	500,000	290,000
Tensile Elongation at Break	%	D638	300	20	50
Flexural Strength	psi	D790	No Break	25,000	97,000
Flexural Modulus	psi	D790	72,000	630,000	290,000
Hardness Rockwell,R/M Scale	—	D785	R58	R126	R80
IZOD Impact Notched	ft-lb/in	D256	3.5	1.6	3
THERMAL					
Coefficient of Linear Thermal Expansion	10-5 in./in./°F	D696	7.5	2.6	6.6
Heat Deflection Temperature	at 264 psi,(°F/°C)	D648	132/55	320/160	230/110
Melting Temperature	°F/°C	D3418	635/335	644/340	332/166
Max. Operating Temperature	°F/°C	—	500/260	480/249	300/150
Thermal Conductivity	BTU- in./ft.2-hr.-°F	C177	1.7	1.8	1.2
Flammability Rating	—	UL94	V-0	V-0	—
ELECTRICAL					
Dielectric Strength	short time, 1/8" thick,(V-mil)	D149	600	480	1700
Dielectric Constant at 1 MHz	—	D150	2.1	3.3	8.5
Dissipation Factor at 1 MHz	—	D150	<0.0002	0.003	0.015
Volume Resistivity	at 50% RH ,(ohm-cm)	D257	>10 ¹¹	10 ¹⁶	2*10 ¹⁴
APPROVALS					
Approval	—	FDA	YES	YES	YES
Approval	—	RoHS	YES	YES	YES