

PTFE All

				Virgin PTFE	25% Glass Reinforced PTFE	FluorosInt 207	FluorosInt 500	Semitron ESD500
		Units	ASTM Test Method	Polytetrafluoroethylene	25% Glass Filled Polytetrafluoroethylene	FDA Synthetic Mica-Filled PTFE	Synthetic Mica-Filled PTFE	Electrostatic Dissapative PTFE
MECHANICAL	Strength to Weight Ratio	ksi						
	Specific Gravity @73 F		D792	2.16	2.22	2.30	2.32	2.30
	Tensile Strength @73 F, (ult)(yld)	psi	D638	4500 (ult)	2800 (ult)	1500	1100	1500
	Tensile Modulus of Elasticity @ 73 F	psi	D638			250000	300000	250000
	Tensile Elongation at Break @ 73 F	%	D638	400	325	50	10	50
	Flexural Strength @ 73 F	psi	D790			2000	2200	2200
	Flexural Modulus of Elasticity @ 73 F	psi	D790	50000-90000		350000	500000	350000
	Shear Strength @ 73 F	psi	D732			1700	2100	1700
	Compressive Strength, (% Deformation) @73 F	psi	D695	600 (1)	1000 (1)	3800 (10)	4000 (10)	3800 (10)
	Compressive Modulus of Elasticity @73 F	psi	D695			225000	250000	225000
	Hardness, Rockwell, Scale as noted @73 F		D785			(R50)	(R55)	(R50)
	Hardness, Durometer, Shore D @73 F		D2240	D55	D54	D65	D70	D65
	Izod Impact, (Notched) @73 F	ft-lb/in of notch	D256 TypeA	3.0		1.0	0.9	1.0
	Coefficient of Friction, (Dry vs. Steel) Dynamic			.05-.08	.10-.13	0.17	0.18	0.17
Limiting PV, (with 4 to 1 factor of safety applied)	psi-ft/min				8000	8000	8000	
THERMAL	Coefficient of Linear Thermal Expansion @73 F	in/in/F	E-831 (TMA)	7.0E-05	3-8E-05	5.7E-05	2.4E-05	5.7E-05
	Heat Deflection Temperature @ 264 psi	F	D648	115		210	270	210
	Tg-Glass transition temperature, (Amorphous)	F	D3418					
	Melting Point, (VS=Vicat Softening Temp.)	F	D3418	621	621	621	621	621
	Continuous Service Temperature in Air, (Max.)	F		500	500	500	500	500
	Thermal Conductivity	BTU-in/hr-ft ² -F		1.70	2.60		5.30	
ELECTRICAL	Dielectric Strength, Short Term	Volts/mil	D149	600		200	275	
	Volume Resistivity	ohm-cm	D257	>10E+18		>1E13	>1E14	1E11-1E13
	Dielectric Constant @ 10E6 Hz		D150			2.7	2.9	
	Dissipation Factor @ 10E6 Hz		D150			0.008	0.008	
	Flammability @ 3.1 mm unless noted		UL94	V-0		V-0	V-0	V-0
H₂O	Water Absorbtion, Immersion, 24 Hrs	% by wt.	D570(7)	0.00		0.03	0.10	0.03
	Water Absorbtion, Saturation	% by wt.	D570(7)			2.00	3.00	2.00