PTFE CNC COMPONENT

Table 1

Property	Unit	Resin Type				Finish	ASTM
		PTFE	FEP	PFA	ETFE	*Teflon®* S	
Nonstick	—	E	E	VG	G	G	None
Chemical Resistance	—	—	E	E	VG	G	None
Abrasion Resistance	—	F	G	VG	E	E	None
Salt Spray Resistance	—	F	E	E	E	E	None
Water Absorption	%	<0.01	<0.01	<0.03	<0.007	—	D570
Coefficient of Friction							
Kinetic	—	0.08	0.08	0.1	0.24	0.1–0.4	D1894
Static		0.1	0.2	0.2	0.4	0.15–0.35	
Specific Gravity	none	2.20	2.15	2.15	1.70	—	
Melt Point	°F	627	500	575	520	—	
Hardness	Shore D	60	55	60	75	60–90	D2240
Maximum Continuous Use Temperature	°C °F	260 500	205 400	260 500	150 300	150–260 300–500	None
Thermal Conductivity	(Btu) (in)/(ft^2) (hr) (°F)	1.70	1.35	1.30	1.65	—	DuPont Method
Coefficient of Linear Thermal Expansion	in/in/°F	5.5	5.4	7.6	5.0	—	D-696 at 70°–212°F
Dielectric Strength (short-term 10-mil film)	V/mil	1200	2000	2000	2000	Up to 1400	D149
Surface Resistivity	ohm/sq	1.0E18	1.0E18	1.0E18	1.0E17	—	D257
Volume Resistivity	ohm cm	1.0E18	1.0E16	1.0E16	1.0E16	—	D257
Tensile Strength	MPa at 23°C	20	23	25	45	20–80	D1708
Elongation at Break	% at 23°C	300	325	300	300	1–150	D1708

Note: The values shown represent average experience and are not intended to be specifications.