SHIVA CO.
The Coaters
An ISO 9001:2000 Company

Typical Properties of Fluoropolymers

	Properties	PTFE	FEP	PFA	ETFE	ECTFE	CTFE	PVDF
Physical	Tensil Strength, X 10^3 psi @ Break @ 77°F	2.00	3.10	4.15	6.55	7.00	5.15	6.35
	Elongation, % @ 77°F	300	330	330	250	250	160	100
	Hardness Rockwell R Shore D	 58 60	 45 55	 60 60	 50 75	 95 80	 115 80	 110 80
	Coeff of Friction against Steel Dynamic Static	 0.03 0.04	 0.06 0.05	 0.10 0.09	 0.40 0.30	 0.50 0.40	 0.25 0.15	 0.18 0.14
	Specific Gravity	2.20	2.15	2.15	1.70	1.68	2.10	1.75
	Abrasion Resistance, Taber CS-17 Wheel, 1 kg Load, 1,000 cycles, wt loss in mg	-	15	-	13	11	25	7
	Critical Surface Tension	18	17	-	26	31	-	25
Thermal	Melting Point, °F	621	545	590	520	460	420	340
	Operating Temperature (°F) Continuous Intermittent	 500 550	 400 450	 500 550	 300 350	 300 330	 400 -	 250 275
	Specific Heat	0.25	0.28	-	0.46	0.28	0.22	0.33
	Thermal Conductivity (BTU/hr/in	1.75	1.40	1.80	1.65	1.06	1.55	1.50
	Coefficient of Linear Thermal Expansion, in/in/°FX10^{-6}	75	50	55	65	60	75	80
	Limiting Oxigen Index	95	95	95	30	55	95	44
	UL-94 Flammability	V-O	V-O	V-O	V-O	V-O	V-O	V-1
Electrical	Dieletric Strength, V/mil	450	1300	2000	2000	2000	500	1500
	Volume Resistivity, ohm-cm	>10^{16}	>10^{16}	>10^{16}	>10^{16}	3 X 10^{14}	>10^{16}	2 X 10^{16}
	Surface Resistivity, ohms	-	10^{15}	-	-	-	>10^{15}	>10^{13}
	Dielectric Constant @ 60 Hz @ 10^6 Hz	 2.1 2.1	 2.1 2.1	 2.1 2.1	 2.6 2.6	 2.6 2.5	 - -	 8.4 6.1
	Dissipation Factor @ 60 Hz @ 10^6 Hz	 0.0002 0.0002	 0.0003 0.0003	 0.0002 0.0003	 0.0006 0.0050	 0.0009 0.0030	 - -	 0.0490 0.1560
	Arc Resistance, seconds	>200	>160	-	75	135	-	60
Chemical	Water Absorption, % in 24 hr	<0.01	<0.01	<0.03	<0.02	<0.05	0.00	<0.04
	Water Vapor Transmission, mg/100 in^2/mil/24 hr	-	0.32	0.35	1.60	2.66	<0.02	1.66
	Permeation Rate, cc/100 in^2/24 hr Carbon Dioxide Helium Oxygen Nitrogen	 - - - -	 1670 4500 750 320	 2260 4500 880 291	 250 900 100 30	 100 1100 25 10	 - - - -	 - - - -

www.shivacoaters.com wwwindiamart.com/shivaco sales@shivacoaters.com
Works: Plot No.1, Khasra No 19/2, Tekchand Colony, Nilothi Road, Nangloi , New Delhi 110041 INDIA
Office: GH13/583, Paschim Vihar, New Delhi 110087 INDIA
+919873244372 +447507440619 +9111165462722