

Typical Properties for Teflon™ Industrial Coatings

PROPERTY	PTFE	FEP	PFA	ETFE	TEFLON-S	UNITS	ASTM
NON-STICK	Excellent	Excellent	Excellent	Good	Good	---	none
CHEMICAL RESISTANCE	Good	Excellent	Excellent	Very Good	Good	---	none
ABRASION RESISTANCE	Good	Fair	Very Good	Excellent	Excellent	---	none
SALT SPRAY RESISTANCE	Fair	Excellent	Excellent	Excellent	Excellent	---	none
MAXIMUM USE TEMPERATURE							
Continuous	500	400	500	300	300 - 425	deg.F	none
Intermittent	550	450	550	350	300 - 425	deg.F	none
COEFFICIENT OF FRICTION							
Static	.12 - .15	.12 - .20	0.2	.24 - .50	0.1 - 0.4	---	D1894
Dynamic	.05 - .10	.08 - .30	---	.30 - .40	---	---	D1894
HARDNESS	60	55	60	75	60 - 90	Shore D	D2240
SPECIFIC GRAVITY	2.2	2.15	2.15	1.7	---	none	D792
MELTING POINT	627	500	575	520	---	deg. F	DTA, E-168
THERMAL CONDUCTIVITY	1.7	1.35	1.3	1.65	---	see NOTE 1	DuPont
DIELECTRIC STRENGTH	16	53	78	78	Up To 58	volts/micron	D149
SURFACE RESISTIVITY	1.0E+18	1.0E+18	1.0E+18	1.00E+17	---	(ohm)(Sq.)	D257
VOLUME RESISTIVITY	1.0E+18	1.00E+16	1.00E+16	1.00E+16	---	(ohm)(cm.)	D257
TENSILE STRENGTH	20	23	25	45	20 - 80	MPa@23 C	D638
ELONGATION AT BREAK	200 - 400	325	300	300	1 - 150	% @ 23 C	D638
WATER ABSORPTION	<0.01	<0.01	<0.03	<0.007	---	percent	D570
PERMEABILITY						see NOTE 2	
- CO2	Porous	1700	2260	250	---		D1434
- NO2	Porous	320	290	30	---		D1434
- O2	Porous	750	880	100	---		D1434

KEY

E = EXCELLENT

VG = VERY GOOD

G = GOOD

F = FAIR

NOTE 1: THERMAL CONDUCTIVITY UNITS = (BTU) (in) / (ft2) (hr) (deg. F)

NOTE 2: PERMEABILITY UNITS = (cc) (mil thickness) / 100 in2) (24 hr) (atm) @ 77 F