

Fluoroplastics

	FEP	KEL-F	PFA	PVDF KYNAR	RULON A	TEFZEL	TFE	TURCITE A
PHYSICAL								
SPECIFIC GRAVITY	2.12 - 2.17	2.08 - 2.185		1.75 - 1.79	2.24	1.7	2.1 - 2.3	1.50
WATER ABSORPTION, 24 hr. (%)	<0.01	0.00		.04	0.00	<0.3%	.000 - .005	.06
MECHANICAL								
TENSILE								
Strength, Yield (10 ³ psi) @ 73°F	3.0 - 4.0	5.7	3.6	5.0 - 7.0	1.2	6.5	1.5 - 5.0	5.5
Elongation, Ultimate (%) @ 73°F	300	150	300	50 - 250	100	300	75 - 350	12
Modulus, Yield (10 ³ psi) @ 73°F		207		200 - 350			50 - 90	
FLEXURAL								
Strength, (10 ³ psi) @ 73°F		8.5		8.6 - 16.0			No break	11.7
Modulus, Yield (10 ³ psi) @ 73°F	95	180	90	180 - 337		140	90 - 110	
COMPRESSIVE STRENGTH								
2% Offset, (10 ³ psi)		5.5						
IMPACT STRENGTH								
Izod, Notched (ft.-lb./in.) @ 73°F	No break	5.0		3.0 - 6.0	6.0			
HARDNESS	D55	D75		D76-80	D60-75		R10-20	D75
COEFFICIENT OF STATIC FRICTION								
Against self								
Against steel				.14 - .17			.04 - .10	
THERMAL								
CONDUCTIVITY								
(BTU/Hr/Sq.Ft./°F/in.)		1.0		.70 - .87	2.3			
COEFF. OF THERMAL EXPANSION								
(10 ⁻⁵ /°F)		3.99	5.4	6.6		14	5.5 - 7.5	5.5
SPECIFIC HEAT								
(BTU/lb./°F)		0.215		.30 - .34				
HEAT DEFLECTION TEMP.								
(°F)								
At 66 psi	158	258		257 - 284				
At 264 psi		167		188 - 239			100 - 140	
MAX. CONTINUOUS TEMP. (°F)	400	380		300	550		500	160
ELECTRICAL								
VOLUME RESISTIVITY								
(Ohm/cm)	>10 ¹⁶	1.2 x 10 ¹⁸		5 X 10 ¹⁴	1 x 10 ¹⁵		>10 ¹⁷	
DIELECTRIC STRENGTH								
(V/Mil)	2100	500	4000/5000	260 - 1280		7000	500 - 650	
DIELECTRIC CONSTANT								
At 60 HZ	2.1	3.0	2.06	10.0		2.6	2.0 - 2.1	
At 1 MHZ	2.1	2.5	2.06	7.5		2.6	2.0 - 2.1	
DISSIPATION FACTOR								
At 60 HZ	0.0002	0.005		0.050		.004		
At 1 MHZ	0.007	0.007		0.184				
ARC RESISTANCE (SECONDS)	300	360		300	180-240			

