



## KEL-F PCTFE

### Characteristics

- \* Excellent Mechanical Properties
- \* Low Outgassing
- \* Chemically Resistant
- \* Wide Temperature Use Range
- \* Minimal Moisture Absorbtion

### Description

**Kel-F PCTFE** is a fluorocarbon based plastic that offers a unique combination of physical and mechanical properties. Included are chemical resistance, nonflammability, near zero moisture absorption, and superior electrical resistance.

With a useful temperature range of -400 degree F to + 400 degree F Kel-F also offers extremely low outgassing making it an ideal material for many environmentally challenging applications.

### Forms Available

ROD	.187 to 8" diameter, Lengths to 120"
TUBE	Custom produced as requested
PLATE	.125" to 4.000" thick, Widths to 24", Lengths to 48"
COLOR	White

### Typical Property Values

#### MECHANICAL @ 73°F

Specific Gravity		
Density	lbs/in.	0.077
Tensile Strength	psi	5,300
Tensile Elongation ( at Break )	%	150
Tensile Modulus of Elasticity	psi	207,000
Flexural Modulus of Elasticity	psi	180,000
Flexural Strength	psi	8,500
Compressive Strength	psi	5,500.00
Compressive Modulus	psi	180,000
Rockwell Hardness	D Scale	90
Izod Impact Strength, Notched	ft-lbs/in. of notch	5.0
Coefficient of Friction, Dynamic ( Dry vs. Steel )		
Limiting PV ( 4 :1 Safety Factor Applied )	ft.lbs/in. <sup>2</sup> min	
Wear Factor	in <sup>3</sup> -min/ft.lbs. hr.	
Water Absorption 24 hrs	% by wt.	< .01

#### THERMAL

Coefficient of Linear Expansion ( -40°F to 300°F )	in./in./°F	7 x 10 <sup>-5</sup>
Heat Deflection Temperature @264 psi	°F	258
Melting Point	°F	415
Continuous Service Temperature in Air	°F	270
Deformation Under Load (2000 psi @ 122 F)	%	

#### ELECTRICAL

Dielectric Strength, Short Term	Volts/mil	500
Surface Resistivity	Ohms/Sq.	
Dielectric Constant	1 MHz	
Dissipation Factor	1 MHz	

#### Kel-F PCTFE

0.077
5,300
150
207,000
180,000
8,500
5,500.00
180,000
90
5.0
< .01
7 x 10 <sup>-5</sup>
258
415
270
500

( Properties listed above are provided for reference only, they should not be used for design specifications or quality control )