



## FLUOROSINT®

### Characteristics

- \* Chemical Resistance Comparable to PTFE
- \* Continuous Use Temperature to 500° F (260° C)
- \* Better Wear Resistance than PTFE
  - Higher Load Carrying Capability
  - 1/9 of the Deformation under Load
  - Lower Coefficient of Thermal Expansion

### Description

Fluorosint's unique properties are the result of a proprietary process in which synthetically manufactured mica is chemically linked to PTFE. This bonding results in properties not normally attainable in reinforced PTFE. Fluorosint grades offer an excellent combination of low frictional properties and dimensional stability.

**FLUOROSINT 207** is uniquely positioned to serve FDA 21 CFR 175.300 regulated applications. It is non-permeable in steam. With a wear rate 1/20th the rate of PTFE it is an excellent choice for aggressive service bearings and bushings.

**FLUOROSINT 500** has nine times greater resistance to deformation under load than unfilled PTFE. Its coefficient of linear thermal expansion approaches the expansion rate of Aluminum often eliminating fit and clearance problems.

### Forms Available

ROD	.500 to 8.75 " diameter, Lengths to 48"
TUBE	Custom produced as requested
PLATE	.250" to 3.000" thick, Widths to 12", Lengths to 24"
COLOR	Off White

### Typical Property Values

#### MECHANICAL @ 73°F

Specific Gravity	
Tensile Strength	psi
Tensile Modulus of Elasticity	psi
Tensile Elongation ( at Break )	%
Flexural Strength	psi
Flexural Modulus of Elasticity	psi
Shear Strength	psi
Compressive Strength, 10% Deformation	psi
Compressive Modulus of Elasticity	psi
Rockwell Hardness	R Scale
Izod Impact Strength, Notched	ft-lbs/in. of notch
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.

#### THERMAL

Coefficient of Linear Expansion ( -40°F to 300°F )	in./in./°F
Heat Deflection Temperature @264 psi	°F
Melting Point ( Crystalline )	°F
Continuous Service Temperature in Air	°F
Thermal Conductivity	°F

#### ELECTRICAL

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

#### Fluorosint® 207

2.30
1,500
250,000
50
2,000
350,000
1,700
3,800
225,000
50
1.00
0.10
8,000
30
0.03
$5.7 \times 10^{-5}$
210
621
500
0.008

#### Fluorosint® 500

2.32
1,100
300,000
10
2,200
500,000
2,100
4,000
250,000
55
0.90
0.15
8,000
600
0.10
$2.5 \times 10^{-5}$
270
621
500
5.30
275
>10 <sup>12</sup>
2.85
0.008

( Properties listed above are provided for reference only, they should not be used for design specifications or quality control , Fluorosint is a registered Trademark of Quadrant EPP )