

**Fluorosint® HPV Mica-filled PTFE**

Mica-filled PTFE provides a unique blend of strength and dimensional stability along with an excellent wear enhancing additive technology. This product provides excellent wear and stability in addition to FDA compliance.

<b>Physical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Specific Gravity	2.06 g/cc	2.06 g/cc	ASTM D792
Water Absorption	0.150 %	0.150 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.430 %	0.430 %	Immersion; ASTM D570(2)
Deformation	3.20 %	3.20 %	2000 psi; 122°F (50°C)
<b>Mechanical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Hardness, Rockwell R	44	44	ASTM D785
Tensile Strength, Ultimate	10.0 MPa	1450 psi	ASTM D638
Elongation at Break	90.0 %	90.0 %	ASTM D638
Tensile Modulus	1.45 GPa	210 ksi	ASTM D638
Flexural Modulus	1.14 GPa	165 ksi	ASTM D790
Flexural Yield Strength	17.2 MPa	2500 psi	ASTM D790
Compressive Strength	20.7 MPa	3000 psi	10% Def., 73°F; ASTM D695
Compressive Modulus	0.758 GPa	110 ksi	ASTM D695
Shear Strength	17.2 MPa	2500 psi	ASTM D732
Coefficient of Friction	0.150	0.150	Dry vs. Steel; QTM 55007
K (wear) Factor	76.5 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M	38.0 x 10 <sup>-10</sup> in <sup>3</sup> -min/ft-lb-hr	QTM 55010
Limiting Pressure Velocity	0.7006 MPa-m/sec	20000 psi-ft/min	4:1 safety factor; QTM 55007
Izod Impact, Notched	0.961 J/cm	1.80 ft-lb/in	ASTM D256 Type A
<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Surface Resistivity per Square	>= 1.00e+13 ohm	>= 1.00e+13 ohm	EOS/ESD S11.11
<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
CTE, linear	88.2 µm/m-°C	49.0 µin/in-°F	ASTM E831
	@Temperature -40.0 - 149 °C	@Temperature -40.0 - 300 °F	
Melting Point	327 °C	621 °F	Crystalline, Peak; ASTM D3418
Maximum Service Temperature, Air	260 °C	500 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	82.2 °C	180 °F	ASTM D648
Flammability, UL94	V-0	V-0	1/8 inch (Estimated Rating)

<b>Chemical Resistance Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Acids, Strong (pH 1-3)	Acceptable	Acceptable	Service in Strong Acids; Acceptable
Acids, Weak	Acceptable	Acceptable	Service in Weak Acids; Acceptable
Alcohols	Acceptable	Acceptable	Service in Alcohols; Acceptable
Alkalies, Strong (pH 11-14)	Unacceptable	Unacceptable	Service in Strong Alkalies; Unacceptable
Alkalies, Weak	Acceptable	Acceptable	Service in Weak Alkalies; Acceptable
Chlorinated Solvents	Acceptable	Acceptable	Service in Chlorinated Solvents; Acceptable
Continuous Sunlight	Acceptable	Acceptable	Service in Sunlight; Acceptable
Hydrocarbons - Aliphatic	Acceptable	Acceptable	Service in Aliphatic Hydrocarbons; Acceptable
Hydrocarbons - Aromatic	Acceptable	Acceptable	Service in Aromatic Hydrocarbons; Acceptable
Ketones, Esters	Acceptable	Acceptable	Service in Ketones; Acceptable

### **Descriptive Properties**

Machinability	2	1-10, 1=Easier to Machine
Service in Alcohols	Acceptable	
Service in Aliphatic Hydrocarbons	Acceptable	
Service in Aromatic Hydrocarbons	Acceptable	
Service in Chlorinated Solvents	Acceptable	
Service in Ethers	Acceptable	
Service in Ketones	Acceptable	
Service in Strong Acids	Acceptable	
Service in Strong Alkalies	Unacceptable	
Service in Sunlight	Acceptable	
Service in Weak Acids	Acceptable	
Service in Weak Alkalies	Acceptable	

Call **PROFESSIONAL PLASTICS, INC.** at **(888) 995-7767**

E-Mail: [sales@proplas.com](mailto:sales@proplas.com)

Order Online at [www.professionalplastics.com](http://www.professionalplastics.com)

Asia Customers Call + **65-6266-6193**

E-Mail: [asia-sales@proplas.com](mailto:asia-sales@proplas.com)