



Fluorosint HPV (Quadrant)

Fluorosint HPV, Mica-filled PTFE material

Material Notes:

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.

Physical Properties	Metric	English	Comments
Specific Gravity	2.06 g/cc	0.0744 lb/in ³	ASTM D792
Water Absorption	0.15 %	0.15 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.43 %	0.43 %	Immersion; ASTM D570(2)
Deformation	3.2 %	3.2 %	2000 psi; 122°F (50°C)

Mechanical Properties

Hardness, Rockwell R	44	44	ASTM D785
Tensile Strength, Ultimate	10 MPa	1450 psi	ASTM D638
Elongation at Break	90 %	90 %	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	0.15	0.15	Dry vs. Steel; QTM 55007
K (wear) Factor	76.5 x 10 ⁻⁸ mm ³ /N-M	38 x 10 ⁻¹⁰ in ³ -min/ft-lb-hr	QTM 55010
Limiting Pressure Velocity	0.701 MPa-m/sec	20000 psi-ft/min	4:1 safety factor; QTM 55007
Izod Impact, Notched	0.961 J/cm	1.8 ft-lb/in	ASTM D256 Type A

Electrical Properties

Surface Resistivity per Square	Min 1e+013 ohm	Min 1e+013 ohm	EOS/ESD S11.11
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Thermal Properties

CTE, linear 68°F	88.2 µm/m-°C	49 µin/in-°F	(-40°F to 300°F); ASTM E831
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 (Estimated Rating)	V-0	V-0	1/8 inch