Fluorosint MT-01 (Quadrant)

Fluorosint MT-01, Enhanced PTFE material

Physical Properties	Metric	English	Comments
Specific Gravity	2.27 g/cc	0.082 lb/in³	ASTM D792
Water Absorption	0.1 %	0.1 %	Immersion, 24hr; ASTM D570(2)
Deformation	0.2 %	0.2 %	2000 psi; 122°F (50°C)
Mechanical Properties			
Hardness, Rockwell R	74	74	ASTM D785
Tensile Strength, Ultimate	14.5 MPa	2100 psi	ASTM D638
Elongation at Break	40 %	40 %	ASTM D638
Tensile Modulus	2.25 GPa	326 ksi	ASTM D638
Flexural Modulus	3.36 GPa	488 ksi	ASTM D790
Flexural Yield Strength	27.6 MPa	4000 psi	ASTM D790
Compressive Strength	23.4 MPa	3400 psi	10% Def., 73°F; ASTM D695
Compressive Modulus	1.72 GPa	250 ksi	ASTM D695
Shear Strength	17.9 MPa	2600 psi	ASTM D732
Coefficient of Friction	0.18	0.18	Dry vs. Steel; QTM 55007
K (wear) Factor	403×10^{-8} mm³/N-M	200×10^{-10} in³-min/ft-lb-hr	QTM55010
Limiting Pressure Velocity	0.158 MPa-m/sec	4500 psi-ft/min	QTM 55007
Thermal Properties			
CTE, linear 68°F	54 µm/m-°C	30 µin/in-°F	(-40°F to 300°F); ASTM E831
Maximum Service Temperature, Air	316 °C	600 °F	Continuous
Deflection Temperature at 1.8 MPa (264 psi)	93.3 °C	200 °F	ASTM D648
Flammability, UL94 (Estimated Rating)	V-0	V-0	3.1 mm (1/8 in.)
Qualitative Processing Properties			
Machinability	5		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	Acceptable		
Service in Sunlight	Acceptable		
Service in Weak Acids	Acceptable		
Service in Weak Alkalies	Acceptable		