

Mitsubishi Chemical Advanced Materials Fluorosint® MT-01 Proprietary fluoropolymer reinforced with carbon fibers and organometallic fillers(ASTM Product Data Sheet)
Categories: Polymer; Thermoplastic; Fluoropolymer; Polytetrafluoroethylene (PTFE); Polytetrafluoroethylene (PTFE), Molded

Material Notes: Quadrant Engineering Plastic Products is now Mitsubishi Chemical Advanced Materials.

Physical Properties	Metric	English	Comments
Specific Gravity	2.27 g/cc	2.27 g/cc	ASTM D792
Water Absorption	0.10 %	0.10 %	Immersion, 24hr; ASTM D570(2)
Deformation	0.20 %	0.20 %	2000 psi; 122°F (50°C)

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	74	74	ASTM D785
Tensile Strength	14.5 MPa	2100 psi	ASTM D638
Tensile Strength at 150°C (300°F)	3.45 MPa	500 psi	ASTM D638
Tensile Strength at 65°C (150°F)	10.3 MPa	1500 psi	ASTM D638
Elongation at Break	40 %	40 %	ASTM D638
Tensile Modulus	2.25 GPa	326 ksi	ASTM D638
Flexural Strength	27.6 MPa	4000 psi	ASTM D790
Flexural Modulus	3.34 GPa	485 ksi	ASTM D790
Compressive Strength	23.4 MPa	3400 psi	10% Def.; ASTM D695
Compressive Modulus	1.72 GPa	250 ksi	ASTM D695
Shear Strength	17.9 MPa	2600 psi	ASTM D732
Coefficient of Friction, Dynamic	0.18	0.18	dry vs. steel; QTM55007
K (wear) Factor	403 x 10 ⁻⁸ mm ³ /N-M	200 x 10 ⁻¹⁰ in ³ -min/ft-lb-hr	QTM55010
Limiting Pressure Velocity	0.158 MPa-m/sec	4500 psi-ft/min	4:1 safety factor applied; QTM 55010

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	<= 1.0e+6 ohm	<= 1.0e+6 ohm	ANSI/ESD STM 11.11

Thermal Properties	Metric	English	Comments
CTE, linear	54.0 µm/m-°C @Temperature -40.0 - 150 °C	30.0 µin/in-°F @Temperature -40.0 - 302 °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	V-0 @Thickness 3.17 mm	V-0 @Thickness 0.125 in	

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
Canada AG	No	No	
FDA	No	No	
NSF	No	No	
USDA	No	No	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Acceptable	Acceptable	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Acceptable	Acceptable	
Alkalies, Weak	Acceptable	Acceptable	
Chlorinated Solvents	Acceptable	Acceptable	
Conductive / Static Dissipative	No	No	
Continuous Sunlight	Acceptable	Acceptable	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Acceptable	Acceptable	
Hydrocarbons - Aromatic	Acceptable	Acceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Acceptable	Acceptable	

Descriptive Properties



Email: info@polymershapes.com

Call: 1 (866) 437-7427

www.polymershapes.com