

Product Data Sheet

Fluorosint® 500 PTFE



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, and is 1/5 that of PTFE--often eliminating fit and clearance problems. It is 1/3 harder than PTFE, has better wear characteristics and maintains low frictional properties. Fluorosint 500 is also non-abrasive to most mating materials.

Property	Method	Unit	Value
Mechanical			
Specific Gravity, 73°F	D792		2.32
Tensile Strength, 73°F	D638	psi	1,100
Tensile Modulus of Elasticity, 73°F	D638	psi	300,000
Elongation, 73°F	D638	%	10.0
Flexural Strength, 73°F	D790	psi	2,200
Flexural Modulus, 73°F	D790	psi	500,000
Shear Strength, 73°F	D732	psi	2,100
Compressive Strength, 10% Def., 73°F	D695	psi	4,000
Compressive Modulus of Elasticity, 73°F	D695	psi	250,000
Hardness, Rockwell, Scale as noted, 73°F	D785		R55
Hardness, Durometer, Shore D scale, 73°F	D2240		D70
Izod Impact (notched), 73°F	D256 Type A	ft-lb/in	0.9
Coefficient of Friction (Dry vs Steel) Dynamic	PTM55007		0.15
Limiting PV, 73°F	PTM55007	psi-fpm	8,000
k (wear) factor	PTM55010		600
Thermal			
Coefficient of linear Thermal Expansion	E-831(TMA)	in/in/°F	2.50 x 10 ⁻⁵
Deflection Temperature 264 psi	D648	°F	270
Melting Point (crystalline) peak	D3418	°F	621
Continuous Service Temperature in Air (Max.)		°F	500
Thermal Conductivity		BTU-in/(hr-ft ² °F)	5.30

For additional information about our products call 1-800-366-0300 or via e-mail at select.support@qplas.com

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Electrical			
Dielectric Strength, Short Term	D149(2)	Volts/mil	275
Surface Resistivity	EOS/ESD S11.11	Ohm/square	>10 ¹³
Dielectric Constant, 10 ⁶ Hz	D150(2)		2.85
Dissipation Factor, 10 ⁶ Hz	D150(2)		0.008
Chemical			
Acids, Weak, 73°F/23°C, acetic acid, dilute hydrochloric or sulfuric			Acceptable Service
Acids, Strong, 73°F/23°C, conc. hydrochloric or sulfuric			Acceptable Service
Alkalies, Weak, 73°F/23°C, dilute ammonia or sodium hydroxide			Acceptable Service
Alkalies, Strong, 73°F/23°C, conc. ammonia or sodium hydroxide			Acceptable Service
Hydrocarbons-Aromatic, 73°F/23°C, benzene, toluene			Acceptable Service
Hydrocarbons-Aliphatic, 73°F/23°C, gasoline, hexane, grease			Acceptable Service
Ketones, Esters, 73°F/23°C, acetone, methyl ethyl ketone			Acceptable Service
Ethers, 73°F/23°C, diethyl ether, tetrahydrofuran			Acceptable Service
Chlorinated Solvents, 73°F/23°C, methylene chloride, chloroform			Acceptable Service
Alcohols, 73°F/23°C, methanol, ethanol, anti-freeze			Acceptable Service
Inorganic Salt Solutions, 73°F/23°C, sodium chloride, potassium cyanate			Acceptable Service
Continuous Sunlight, 73°F/23°C			Acceptable Service
Miscellaneous			
Water Absorption Immersion, 24 hr	D570	%	0.10
Water Absorption Immersion, Sat.	D570	%	3.00
Compliance			
UL94			V-0

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