



# LEHIGH VALLEY PLASTICS

We Shape The Industry

## Fluorosint® 207 (CM), PTFE, synthetic mica-filled, FDA compliant, compression molded

**Material Notes:** Fluorosint 207's unmatched dimensional stability, excellent creep resistance and white color uniquely position this material to serve FDA regulated applications. It is non-permeable in steam and complies with the FDA's regulation 21 CFR 175.300. Its relative wear rate is 1/20 the rate of PTFE below 300°F (150°C).

MECHANICAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Specific Gravity	2.3	ASTM D792	2.3
Tensile Strength, psi	1500	ASTM D638	10 MPa
Tensile Modulus, psi	250000	ASTM D638	1,724 MPa
Elongation, %	50	ASTM D638	50 %
Flexural Strength, psi	2000	ASTM D790	14 MPa
Flexural Modulus, psi	350000	ASTM D790	2,413 MPa
Shear Strength, psi	1700	ASTM D732	12 MPa
Compressive Strength, psi	3800	ASTM D695, 10% Def.	26 MPa
Compressive Modulus, psi	225000	ASTM D695	1,551 MPa
Hardness, Rockwell R	50	ASTM D785	50
Hardness, Durometer, Shore D Scale	65	ASTM D2240	65
Izod Impact (Notched), ft-lb/in	1	ASTM D256 Type A	53 J/m
Coefficient of Friction, Dynamic	0.1	Dry vs. Steel, QTM55007	0.1
Limiting PV, psi-fpm	8000	4:1 safety factor; QTM 55007	0.28 MPa-m/sec
k (wear) factor, 10 <sup>-10</sup> in <sup>3</sup> -min/lb-ft-hr	30	QTM 55010	30 10 <sup>-10</sup> in <sup>3</sup> -min/lb-ft-hr
Relative Machinability	1	1-10, 1=Easier to Machine	1
THERMAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Coefficient of Thermal Expansion, 10E-4/°F	0.57	ASTM E831 (-40°F to 300°F)	1.0 10 <sup>-4</sup> /K
Deflection Temperature 264 psi, °F	210	ASTM D648	99 °C
Melting Point (Crystalline) Peak, °F	621	ASTM D3418	327 °C
Continuous Service in Air (Max), °F	500	Long Term	260 °C
ELECTRICAL PROPERTIES	VALUES	COMMENTS	METRIC VALUES
Dielectric Strength, Short Term, Volts/mil	200	ASTM D149	7.9 kV/mm
Surface Resistance, Ohm/Square	1E+12	Lower Limit; EOS/ESD S11.111E+12 Ohm/Square	
Dielectric Constant, 1 MHz	2.65	ASTM D150	2.65
Dissipation Factor, 1 MHz	0.008	ASTM D150	0.008
CHEMICAL PROPERTIES	ENGLISH VALUES	COMMENTS	METRIC VALUES
Water Absorption Immersion, 24 hr., %	0.03	ASTM D570(2)	0.03 %
Water Absorption Immersion Sat, %	2	ASTM D570(2)	2 %
Acids, Weak (acetic, dilute HCl)	3	Acceptable Service	3
Acids, Strong (conc. HCl or sulfuric)	3	Acceptable Service	3
Alkalies, Weak (dilute NaOH)	3	Acceptable Service	3
Alkalies, Strong (conc. NaOH)	1	Unacceptable	1
Hydrocarbons, Aromatic (toluene)	3	Acceptable Service	3
Hydrocarbons, Aliphatic (gasoline)	3	Acceptable Service	3
Ketones, Esters (acetone)	3	Acceptable Service	3
Ethers (diethyl ether, THF)	3	Acceptable Service	3
Chlorinated Solvents (methylene chloride)	3	Acceptable Service	3
Alcohols (methanol, anti-freeze)	3	Acceptable Service	3
Continuous Sunlight	3	Acceptable Service	3
COMPLIANCE	ENGLISH VALUES	COMMENTS	METRIC VALUES
Flammability, UL94 (5=V-0; 4=V-1; 3=V-2; 1=HB)	5 (V-0)	UL94; 1/8 inch	5
FDA (1=Yes)	1	Compliant	1

IMPORTANT: The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained therefrom. Lehigh Valley Plastics, Inc. will not be held responsible for the use of this information relative to actual application.