

PolyOne Stat-Tech™ LC-20NCF/000 V3 Natural Liquid Crystal Polymer (LCP)

Category : Polymer , Thermoplastic , Liquid Crystal Polymer (LCP)

Material Notes:

Stat-Tech™ Electrically Conductive Compounds are specifically engineered to provide anti-static, ESD and RFI/EMI shielding performance for critical electronic equipment applications. These compounds combine the performance of select engineering resins with reinforcing additives such as carbon powder, carbon fiber, nickel-coated carbon fiber and stainless steel fiber for low to high levels of conductivity depending upon application requirements. Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Stat-Tech-LC-20NCF000-V3-Natural-Liquid-Crystal-Polymer-LCP.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.52 g/cc	1.52 g/cc	ASTM D792
Linear Mold Shrinkage, Transverse	0.0070 - 0.010 cm/cm	0.0070 - 0.010 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	93.8 MPa	13600 psi	ASTM D638
Elongation at Break	1.0 %	1.0 %	Type I, 5.1 mm/min; ASTM D638
Tensile Modulus	15.8 GPa	2290 ksi	Type I, 5.1 mm/min; ASTM D638
Flexural Strength	145 MPa	21000 psi	ASTM D790
Flexural Modulus	12.2 GPa	1770 ksi	ASTM D790
Izod Impact, Notched	0.270 J/cm @Thickness 3.18 mm, Temperature 23.0 °C	0.506 ft-lb/in @Thickness 0.125 in, Temperature 73.4 °F	Injection Molded; ASTM D256A

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	260 °C @Thickness 6.35 mm	500 °F @Thickness 0.250 in	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	206 °C @Thickness 6.35 mm	403 °F @Thickness 0.250 in	Unannealed; ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	100 - 10000 ohm-cm	100 - 10000 ohm-cm	ASTM D257
Surface Resistance	100 - 10000 ohm	100 - 10000 ohm	ASTM D257
Static Decay			(Mil-B-81705C), 12% RH, 500 kV to 50

Electrical Properties	0.0020 sec Metric	0.0020 sec English	kV Comments
Shielding Effectiveness	30 - 80 dB @Frequency 2.00e+7 - 1.80e+10 Hz	30 - 80 dB @Frequency 2.00e+7 - 1.80e+10 Hz	1/8 thickness

Processing Properties	Metric	English	Comments
Melt Temperature	299 - 316 °C	570 - 601 °F	

Descriptive Properties	Value	Comments
Features	Antistatic	
	Conductive	
	Electrically Conductive	
	Electromagnetic Shielding (EMI)	
	Radio Frequency Shielding (RFI)	
	Statically Conductive	
Filler / Reinforcement	Carbon Fiber Reinforcement, 20% Filler by Weight	
Forms	Pellets	
Generic Material	LCP	
Generic Name	Liquid Crystal Polymer (LCP)	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Aerospace Applications	
	Automotive Electronics	
	Business Equipment	
	Computer Components	
	Connectors	

Descriptive Properties	Electrical Housing Value	Comments
	Electrical/Electronic Applications	
	Housings	

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