Stat-Tech™ PP-16CP/000 2 HI BLACK

Polypropylene

Key Characteristics

Product Description			
Stat-Tech™ electrically conductive compounds are specifically engineered to provide anti-static, ESD and RFI/EMI shielding performance for critical electronic 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.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Powder, 16% Filler by Weight		
Features	• Antistatic • Conductive	• Electrically Conductive • Statically Conductive	
Uses	• Aerospace Applications • Automotive Electronics • Business Equipment	• Computer Components • Connectors • Electrical Housing	• Electrical/Electronic Applications • Housings
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.03	1.03	ASTM D792
Molding Shrinkage - Flow	8.0E-3 to 0.010 in/in	0.80 to 1.0 %	ASTM D955
Molding Shrinkage - Across Flow	8.0E-3 to 0.010 in/in	0.80 to 1.0 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength (Yield)	3700 psi	25.5 MPa	ASTM D638
Tensile Elongation [2] (Break)	12 %	12 %	ASTM D638
Flexural Modulus	245000 psi	1690 MPa	ASTM D790
Flexural Strength	6150 psi	42.4 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	6.0 ft·lb/in	320 J/m	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	208 °F	98.0 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	122 °F	50.0 °C	
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Volume Resistivity	1.0E+3 to 1.0E+5 ohms·cm	1.0E+3 to 1.0E+5 ohms·cm	ASTM D257
Static Decay - (Mil-B-81705C), 12% RH, 5000 kV to 50 kV	2 msec	2 msec	
Surface Resistivity	1000 to 100000 ohms/sq	1000 to 100000 ohms/sq	ASTM D257

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Rear Temperature	425 to 460 °F	218 to 238 °C
Middle Temperature	415 to 450 °F	213 to 232 °C
Front Temperature	405 to 440 °F	207 to 227 °C
Nozzle Temperature	415 to 450 °F	213 to 232 °C
Mold Temperature	150 to 180 °F	65.6 to 82.2 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] Type I, 0.20 in/min (5.1 mm/min)

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