



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

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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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