



Stat-Tech™ AS-13CF/000 Black

Acrylonitrile Butadiene Styrene

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 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.

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 13% 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	1.10	1.10	ASTM D792
Molding Shrinkage - Flow	4.0E-4 to 2.0E-3 in/in	0.040 to 0.20 %	ASTM D955
Molding Shrinkage - Across Flow	2.0E-3 to 6.0E-3 in/in	0.20 to 0.60 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	1.12E+6 psi	7720 MPa	ASTM D638
Tensile Strength (Yield)	11400 psi	78.6 MPa	ASTM D638
Tensile Elongation ² (Break)	1.0 %	1.0 %	ASTM D638
Flexural Modulus	1.25E+6 psi	8620 MPa	ASTM D790
Flexural Strength	17800 psi	123 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	0.80 ft-lb/in	43 J/m	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	210 °F	98.9 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	204 °F	95.6 °C	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+2 to 1.0E+5 ohms	1.0E+2 to 1.0E+5 ohms	ASTM D257
Volume Resistivity	1.0E+2 to 1.0E+5 ohms-cm	1.0E+2 to 1.0E+5 ohms-cm	ASTM D257

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Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Static Decay - (Mil-B-81705C), 12% RH, 5000 kV to 50 kV	2 msec	2 msec	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	190 °F	88 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.010 to 0.15 %	0.010 to 0.15 %
Rear Temperature	400 to 475 °F	204 to 246 °C
Middle Temperature	400 to 475 °F	204 to 246 °C
Front Temperature	400 to 475 °F	204 to 246 °C
Nozzle Temperature	420 to 500 °F	216 to 260 °C
Processing (Melt) Temp	440 to 460 °F	227 to 238 °C
Mold Temperature	140 to 200 °F	60 to 93 °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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