Stat-Tech™ AS-1000 AS 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
Features	• Antistatic	• Non-Sloughing	
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	1.09	1.09	ASTM D792
Molding Shrinkage - Flow	1.0E-3 to 9.0E-3 in/in	0.10 to 0.90 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	189000 psi	1300 MPa	ASTM D638
Tensile Strength (Yield)	5220 psi	36.0 MPa	ASTM D638
Tensile Elongation [2] (Break)	12 %	12 %	ASTM D638
Flexural Modulus	230000 psi	1590 MPa	ASTM D790
Flexural Strength	7250 psi	50.0 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	2.6 ft·lb/in	140 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)	180 °F	82.0 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	156 °F	69.0 °C	
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Surface Resistivity	1.0E+9 to 1.0E+11 ohms	1.0E+9 to 1.0E+11 ohms	ASTM D257
Volume Resistivity	1.0E+9 to 1.0E+11 ohms·cm	1.0E+9 to 1.0E+11 ohms·cm	ASTM D257

Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Static Decay			
(Mil-B-81705C), 12% RH, 5000 kV to 50 kV	0.3 sec	0.3 sec	
(Mil-B-81705C), 50% RH, 5000 kV to 50 kV	0.1 sec	0.1 sec	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	190 °F	87.8 °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
Mold Temperature	140 to 200 °F	60.0 to 93.3 °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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