



# 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 <sup>1</sup>

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 <sup>2</sup>	189000 psi	1300 MPa	ASTM D638
Tensile Strength (Yield)	5220 psi	36.0 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (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

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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	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

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 0.20 in/min (5.1 mm/min)

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