



Stat-Tech™ AS-15CF/000

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, 15% Filler by Weight		
Features	• Electrically Conductive • Electromagnetic Shielding (EMI)	• ESD Protection • Radio Frequency Shielding (RFI)	
Uses	• Aerospace Applications • Automotive Under the Hood	• Business Equipment • Electrical/Electronic Applications	• Housings • Printer Parts
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.11	1.11	ASTM D792
Molding Shrinkage - Flow	1.5E-3 to 2.0E-3 in/in	0.15 to 0.20 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	0.15 %	0.15 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	575000 psi	3960 MPa	ASTM D638
Tensile Strength ² (Yield)	14800 psi	102 MPa	ASTM D638
Tensile Elongation ² (Break)	2.5 to 4.0 %	2.5 to 4.0 %	ASTM D638
Flexural Modulus	1.10E+6 psi	7580 MPa	ASTM D790
Flexural Strength	20500 psi	141 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.250 in (6.35 mm), Injection Molded	1.4 ft·lb/in	76 J/m	ASTM D256A
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	185 °F	85.0 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	167 °F	75.0 °C	ASTM D648
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+2 to 5.0E+4 ohms	1.0E+2 to 5.0E+4 ohms	ASTM D257

Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Volume Resistivity	1.0E+2 to 5.0E+4 ohms·cm	1.0E+2 to 5.0E+4 ohms·cm	ASTM D257
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	HB	HB	UL 94

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 to 185 °F	80 to 85 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	430 to 480 °F	221 to 249 °C
Mold Temperature	149 to 185 °F	65 to 85 °C

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)