Stat-Tech™ ST7300-0005

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	5.0E-4 to 2.0E-3 in/in	0.050 to 0.20 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [2] (Yield)	10200 psi	70.3 MPa	ASTM D638
Flexural Modulus	1.40E+6 psi	9650 MPa	ASTM D790
Flexural Strength	15000 psi	103 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	1.0 ft·lb/in	53 J/m	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	212 °F	100 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	203 °F	95.0 °C	
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
Volume Resistivity	1.0E+2 to 5.0E+4 ohms·cm	1.0E+2 to 5.0E+4 ohms·cm	ASTM D257

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)