Stat-Tech™ AS-20CF/000 BK001

Acrylonitrile Butadiene Styrene

Key Characteristics

Product Description			
20 % carbon fiber reinforced ABS compound			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight		
Features	• ESD Protection		
Uses	• Aerospace Applications • Automotive Under the Hood	• Business Equipment • Electrical/Electronic Applications	• Housings • Printer Parts
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.15	1.15	ASTM D792
Molding Shrinkage - Flow	1.5E-3 to 2.0E-3 in/in	0.15 to 0.20 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength [2] (Yield)	14500 psi	100 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	7600 MPa	ASTM D790
Flexural Strength	20300 psi	140 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.250 in (6.35 mm), Injection Molded	0.94 ft·lb/in	50 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)	185 °F	85.0 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	167 °F	75.0 °C	
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Surface Resistivity	1.0E+4 to 1.0E+6 ohms	1.0E+4 to 1.0E+6 ohms	ASTM D257
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating	HB	HB	Internal Method

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 to 185 °F	80.0 to 85.0 °C
Drying Time	4.0 hr	4.0 hr

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	428 to 482 °F	220 to 250 °C
Mold Temperature	149 to 185 °F	65.0 to 85.0 °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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