Stat-Tech™ Stat-Tech™ X0300-8001 EDS BK001

Polycarbonate

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, 8.0% Filler by Weight		
Additive	• Antistatic		
Features	• Antistatic • Electromagnetic Shielding (EMI)	• ESD Protection • Flame Retardant	• 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	1.24	1.24	ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 3.0E-3 in/in	0.20 to 0.30 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	300000 psi	2070 MPa	ASTM D638
Tensile Strength [2] (Yield)	12500 psi	86.2 MPa	ASTM D638
Tensile Elongation [2] (Break)	5.0 to 10 %	5.0 to 10 %	ASTM D638
Flexural Modulus	400000 psi	2760 MPa	ASTM D790
Flexural Strength	25000 psi	172 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	1.7 ft·lb/in	91 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)	282 °F	139 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	271 °F	133 °C	
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Surface Resistivity	5.0E+8 to 5.0E+12 ohms	5.0E+8 to 5.0E+12 ohms	ASTM D257

Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			Internal Method
0.031 in (0.79 mm)	V-0	V-0	
0.06 in (1.5 mm)	V-0	V-0	
0.12 in (3.2 mm)	V-0	V-0	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	248 to 266 °F	120 to 130 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Rear Temperature	554 to 590 °F	290 to 310 °C
Middle Temperature	554 to 590 °F	290 to 310 °C
Front Temperature	554 to 590 °F	290 to 310 °C
Mold Temperature	176 to 230 °F	80 to 110 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] Type I, 0.20 in/min (5.1 mm/min)

Beyond Polymers.

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