



Stat-Tech™ CTX-1125 Natural

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	• Nickel-Coated Carbon Fiber		
Features	• Electromagnetic Shielding (EMI)		
Uses	• Aerospace Applications • Automotive Electronics	• Computer Components • Connectors	• Electrical Housing • Electrical/Electronic Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.33	1.33	ASTM D792
Molding Shrinkage - Flow	1.0E-4 to 2.0E-3 in/in	0.010 to 0.20 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength (Break)	11000 psi	75.8 MPa	ASTM D638
Tensile Elongation ² (Break)	1.5 %	1.5 %	ASTM D638
Flexural Modulus	1.00E+6 psi	6890 MPa	ASTM D790
Flexural Strength	17000 psi	117 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	228 °F	109 °C	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	10 to 1.0E+5 ohms	10 to 1.0E+5 ohms	ASTM D257
Volume Resistivity	10 to 1.0E+5 ohms·cm	10 to 1.0E+5 ohms·cm	ASTM D257
Charge Decay Time - (Mil-B-81705C), 12% RH, 5000kV to 50kV	2 msec	2 msec	
Shielding Effectiveness			
10GHz, 1/8" thickness	36 dB	36 dB	
1GHz, 1/8" thickness	16 dB	16 dB	
5GHz, 1/8" thickness	26 dB	26 dB	
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (Internal Method)	HB	HB	UL 94

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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

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)

CONTACT INFORMATION

Americas

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

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