



Stat-Tech™ AS-1000 AS Black

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
Features	• Antistatic	• Non-Sloughing	
Uses	• Aerospace Applications • Automotive Electronics • Business Equipment	• Computer Components • Connectors • Electrical Housing	• Electrical/Electronic Applications • Housings
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.09	1.09	ASTM D792
Molding Shrinkage - Flow	1.0E-3 to 9.0E-3 in/in	0.10 to 0.90 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	189000 psi	1300 MPa	ASTM D638
Tensile Strength (Yield)	5220 psi	36.0 MPa	ASTM D638
Tensile Elongation ² (Break)	12 %	12 %	ASTM D638
Flexural Modulus	1600 psi	11.0 MPa	ASTM D790
Flexural Strength	7250 psi	50.0 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	2.6 ft·lb/in	140 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)	180 °F	82.0 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	156 °F	69.0 °C	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+9 to 1.0E+11 ohms	1.0E+9 to 1.0E+11 ohms	ASTM D257
Volume Resistivity	1.0E+9 to 1.0E+11 ohms·cm	1.0E+9 to 1.0E+11 ohms·cm	ASTM D257

Copyright © 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Static Decay			
(Mil-B-81705C), 12% RH, 5000 kV to 50 kV	0.3 sec	0.3 sec	
(Mil-B-81705C), 50% RH, 5000 kV to 50 kV	0.1 sec	0.1 sec	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	440 to 460 °F	227 to 238 °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

Mexico - Toluca
+52 722 2790200

United States - Avon Lake
+1 440 930 1000

Asia

China - Shanghai
+86 21 5080 1188

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Tianjin
+86 22 2532 8818

India - Pune

Japan - Tokyo
+81-3-6261-3980

Singapore - Singapore
+65 6861 9325

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

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314

Turkey - Esenyurt - Istanbul – Turkey
+90 212 549 2256



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

Copyright ©, 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.