

PolyOne Stat-Tech™ X ST6600-0041 ES NHFR Black Polyamide 66 (Nylon 66)

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

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. Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Stat-Tech-X-ST6600-0041-ES-NHFR-Black-Polyamide-66-Nylon-66.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.38 g/cc	1.38 g/cc	ASTM D792
Linear Mold Shrinkage, Flow	0.00050 - 0.0020 cm/cm	0.00050 - 0.0020 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.021 - 0.022 cm/cm	0.021 - 0.022 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	183 MPa	26500 psi	ASTM D638
Elongation at Break	3.1 %	3.1 %	Type I, 5.1 mm/min; ASTM D638
Flexural Strength	334 MPa	48400 psi	ASTM D790
Flexural Modulus	2.64 GPa	383 ksi	ASTM D790
Izod Impact, Notched	0.570 J/cm @Thickness 3.18 mm, Temperature 23.0 °C	1.07 ft-lb/in @Thickness 0.125 in, Temperature 73.4 °F	Injection Molded; ASTM D256A

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	>= 245 °C	>= 473 °F	Unannealed; ASTM D648
Flammability, UL94	V-1	V-1	Internal Method; UL 94

Electrical Properties	Metric	English	Comments
Volume Resistivity	10 - 1000 ohm-cm	10 - 1000 ohm-cm	ASTM D257
Surface Resistance	100 - 10000 ohm	100 - 10000 ohm	ASTM D257
Static Decay	0.0020 sec	0.0020 sec	(Mil-B-81705C), 12% RH, 5000kV to 50kV

Electrical Properties Shielding Effectiveness	36 dB Metric	36 dB English	Comments 1/8 thickness
	@Frequency 1.00e+9 Hz	@Frequency 1.00e+9 Hz	
	54 dB	54 dB	
	@Frequency 5.00e+9 Hz	@Frequency 5.00e+9 Hz	1/8 thickness
	67 dB	67 dB	
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	1/8 thickness

Processing Properties	Metric	English	Comments
Drying Temperature	71.1 - 82.2 °C	160 - 180 °F	

Descriptive Properties	Value	Comments
Features	Good Chemical Resistance	
	High Stiffness	
	Semi Crystalline	
Filler / Reinforcement	Carbon Fiber Reinforcement, 40% Filler by Weight	
Forms	Pellets	
Generic Material	Nylon 66	
Generic Name	Polyamide 66 (Nylon 66)	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Uses	Aerospace Applications	
	Business Equipment	
	Computer Components	
	Connectors	
	Electrical/Electronic Applications	

Descriptive Properties	Value	Comments
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