



**Product Data Sheet &
General Processing Conditions**

**EMI 1363
Polyphenylene Sulfide (PPS)
Stainless Steel Fiber
Electrically Conductive
EMI/RFI/ESD Protection**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	20 %	20 %	
Specific Gravity	1.55	1.55	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0040 - 0.0060 in/in	0.40 - 0.60 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	0.5 ft-lbs/in	27 J/m	D 256
unnotched 1/8 in (3.2 mm) section	4.0 ft-lbs/in	214 J/m	D 4812
Tensile Strength	11000 psi	76 MPa	D 638
Tensile Elongation	2.0 %	2.0 %	D 638
Tensile Modulus	0.80 x 10 ⁶ psi	5516 MPa	D 638
Flexural Strength	20000 psi	138 MPa	D 790
Flexural Modulus	0.80 x 10 ⁶ psi	5516 MPa	D 790

ELECTRICAL

Volume Resistivity	< 1E0 ohm.cm	< 1E0 ohm.cm	D 257
Surface Resistivity	< 1E4 ohm/sq	< 1E4 ohm/sq	D 257
Surface Resistance	< 1E3 ohm	< 1E3 ohm	ESD STM11.11
Static Decay	< 0.50 s	< 0.50 s	FTMS101C 4046.1

PROPERTY NOTES

Data herein is typical and not to be construed as specifications.

Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	585 - 615 °F	307 - 324 °C
Mold Temperature	275 - 350 °F	135 - 177 °C
Drying	6 hrs @ 300 °F	6 hrs @ 149 °C
Moisture Content	0.04 %	0.04 %

PROCESSING NOTES

Use a reverse barrel profile. Remove hopper magnets. Allow 4 - 5 shots to properly disperse the conductive fibers. The surface finish should have a silver streaking appearance, not clumps.

Use a reverse barrel profile. To maximize fiber length, the following injection barrel, screw, and tip designs should be followed. L/D ratio 16/1 - 22/1, Compression ratio 2:1, Flight depth 0.200 in (5 mm) minimum, in feed section, Screw diameter 0.65 - 0.80 in (16.5 - 20 mm) minimum, Compression section length 12 - 13 diameters, Check ring valve assembly - free flow type no restrictions, Nozzle orifice 0.250 in (6 mm) diameter. Feed throat from hopper to machine must have sufficient opening to prevent bridging of long pellet composition.