Product Data Sheet &
General Processing Conditions

EMI 333 G FR
Polycarbonate (PC)
20% Glass Fiber
15% Stainless Steel Fiber
Electrically Conductive
EMI/RFI/ESD Protection
Flame Retardant

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.64	1.64	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0020 - 0.0030 in/in	0.20 - 0.30 %	D 955
MECHANICAL			
Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.2 ft-lbs/in	64 J/m	D 256
unnotched 1/8 in (3.2 mm) section	9.8 ft-lbs/in	523 J/m	D 4812
Tensile Strength	15200 psi	105 MPa	D 638
Tensile Elongation	1.0 - 3.0 %	1.0 - 3.0 %	D 638
Tensile Modulus	1.30 x 10^6 psi	8964 MPa	D 638
Flexural Strength	24800 psi	171 MPa	D 790
Flexural Modulus	1.22 x 10^6 psi	8412 MPa	D 790
ELECTRICAL			
Volume Resistivity	< 0 ohm.cm	< 0 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			
MIL-PRF-81705D, 5kV to 50 V, 12% RH	< 0.50 s	< 0.50 s	FTMS101C 4046.1
THERMAL			
Ignition Resistance*			
Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801
EMI			
Shielding Effectiveness @ 2 mm thickness	70 dB @ 300 MHz	70 dB @ 300 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	72 dB @ 500 MHz	72 dB @ 500 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	76 dB @ 700 MHz	76 dB @ 700 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	80 dB @ 1000 MHz	80 dB @ 1000 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	84 dB @ 1300 MHz	84 dB @ 1300 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	85 dB @ 1500 MHz	85 dB @ 1500 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	80 dB @ 300 MHz	80 dB @ 300 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	87 dB @ 500 MHz	87 dB @ 500 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	91 dB @ 700 MHz	91 dB @ 700 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	96 dB @ 1000 MHz	96 dB @ 1000 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	97 dB @ 1300 MHz	97 dB @ 1300 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	99 dB @ 1500 MHz	99 dB @ 1500 MHz	D 4935

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.

* This rating is not intended to reflect hazards of th ual fire conditions.
** Values per RTP Company testing.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	530 - 580 °F	277 - 304 °C
Mold Temperature	160 - 250 °F	71 - 121 °C
Drying	4 hrs @ 250 °F	4 hrs @ 121 °C
Moisture Content	0.02 %	0.02 %
Dew Point	-20 °F	-29 °C

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.
Remove hopper magnets.
Desiccant Type Dryer Required.