Product Data Sheet &
General Processing Conditions

ESD C 280 FR
Nylon 6/6 (PA)
Carbon Fiber
Flame Retardant
ESD Protection
Electrically Conductive

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.47	1.47	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0010 - 0.0020 in/in	0.10 - 0.20 %	D 955
MECHANICAL			
Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.7 ft-lbs/in	91 J/m	D 256
unnotched 1/8 in (3.2 mm) section	11.0 ft-lbs/in	587 J/m	D 4812
Tensile Strength	24000 psi	165 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	D 638
Tensile Modulus	1.90 x 10^6 psi	13100 MPa	D 638
Flexural Strength	35000 psi	241 MPa	D 790
Flexural Modulus	1.65 x 10^6 psi	11377 MPa	D 790
ELECTRICAL			
Volume Resistivity	< 1E3 ohm.cm	< 1E3 ohm.cm	D 257
Surface Resistivity	< 1E6 ohm/sq	< 1E6 ohm/sq	D 257
Surface Resistance	< 1E5 ohm	< 1E5 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			
Deflection Temperature			
@ 264 psi (1820 kPa)	421 °F	216 °C	D 648
Ignition Resistance*			
Flammability	V-0 @ 1/16 in	V-0 @ 1.5 mm	UL94
EMI			
Shielding Effectiveness @ 2 mm thickness	30 dB @ 30 MHz	30 dB @ 30 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	30 dB @ 150 MHz	30 dB @ 150 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	30 dB @ 300 MHz	30 dB @ 300 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	29 dB @ 500 MHz	29 dB @ 500 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	29 dB @ 700 MHz	29 dB @ 700 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	29 dB @ 1000 MHz	29 dB @ 1000 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	30 dB @ 1300 MHz	30 dB @ 1300 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	32 dB @ 1500 MHz	32 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 this or any other material under actual fire conditions.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 18000 psi	69 - 124 MPa
Melt Temperature	530 - 570 °F	277 - 299 °C
Mold Temperature	150 - 225 °F	66 - 107 °C
Drying	4 hrs @ 175 °F	4 hrs @ 79 °C
Moisture Content	0.20 %	0.20 %
Dew Point	0 °F	-18 °C

PROCESSING NOTES

Desiccant Type Dryer Required.