



**Product Data Sheet &
General Processing Conditions**

**RTP 681 HEC
Acrylonitrile Butadiene Styrene
(ABS)
Nickel-Coated Carbon Fiber
EMI/RFI/ESD Protection**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	10 %	10 %	
Specific Gravity	1.12	1.12	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0015 - 0.0025 in/in	0.15 - 0.25 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.0 ft-lbs/in	53 J/m	D 256
unnotched 1/8 in (3.2 mm) section	4.0 ft-lbs/in	214 J/m	D 4812
Tensile Strength	10000 psi	69 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	0.80 x 10 ⁶ psi	5516 MPa	D 638
Flexural Strength	15000 psi	103 MPa	D 790
Flexural Modulus	0.75 x 10 ⁶ psi	5171 MPa	D 790

ELECTRICAL

Volume Resistivity	< 100 ohm.cm	< 100 ohm.cm	D 257
Surface Resistivity	< 1E5 ohm/sq	< 1E5 ohm/sq	D 257
Surface Resistance	< 1E4 ohm	< 1E4 ohm	ESD STM11.11
Static Decay MIL-PRF-81705D, 5kV to 50 V, 12% RH	< 2.00 s	< 2.00 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	400 - 460 °F	204 - 238 °C
Mold Temperature	145 - 185 °F	63 - 85 °C
Drying	2 hrs @ 180 °F	2 hrs @ 82 °C
Moisture Content	0.10 %	0.10 %
Dew Point	0 °F	-18 °C

PROCESSING NOTES

Remove hopper magnets.
Desiccant Type Dryer Required.