




**Product Data Sheet &  
General Processing Conditions**

**RTP 2583 HEC FR  
Polycarbonate/ABS Alloy (PC/ABS)  
Nickel-Coated Carbon Fiber  
EMI/RFI Shielding  
Electrically Conductive  
Flame Retardant  
UL94 V-0**



**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	20 %	20 %	
Specific Gravity	1.42	1.42	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0005 - 0.0015 in/in	0.05 - 0.15 %	D 955
Water Absorption, 24 hrs @ 23°C	0.100 %	0.100 %	D 570

**MECHANICAL**

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	0.8 ft-lbs/in	43 J/m	D 256
unnotched 1/8 in (3.2 mm) section	5.4 ft-lbs/in	288 J/m	D 4812
Tensile Strength	17800 psi	123 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	1.80 x 10 <sup>6</sup> psi	12411 MPa	D 638
Flexural Strength	24000 psi	165 MPa	D 790
Flexural Modulus	1.50 x 10 <sup>6</sup> psi	10342 MPa	D 790

**ELECTRICAL**

Volume Resistivity	< 1E1 ohm.cm	< 1E1 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

**THERMAL**

Ignition Resistance*			
Flammability	V-0 @ 1/16 in	V-0 @ 1.5 mm	UL94
Flammability	5VA @ 1/8 in	5VA @ 3.0 mm	UL94

**EMI**

Shielding Effectiveness @ 2 mm thickness	62 dB @ 300 MHz	62 dB @ 300 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	62 dB @ 500 MHz	62 dB @ 500 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	65 dB @ 700 MHz	65 dB @ 700 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	69 dB @ 1000 MHz	69 dB @ 1000 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	73 dB @ 1300 MHz	73 dB @ 1300 MHz	D 4935
Shielding Effectiveness @ 2 mm thickness	77 dB @ 1500 MHz	77 dB @ 1500 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	77 dB @ 300 MHz	77 dB @ 300 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	83 dB @ 500 MHz	83 dB @ 500 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	88 dB @ 700 MHz	88 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	101 dB @ 1300 MHz	101 dB @ 1300 MHz	D 4935
Shielding Effectiveness @ 3 mm thickness	103 dB @ 1500 MHz	103 dB @ 1500 MHz	D 4935

## PROPERTY NOTES

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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 - 15000 psi	69 - 103 MPa
Melt Temperature	470 - 525 °F	243 - 274 °C
Mold Temperature	125 - 200 °F	52 - 93 °C
Drying	4 hrs @ 200 °F	4 hrs @ 93 °C
Moisture Content	0.02 %	0.02 %
Dew Point	-20 °F	-29 °C

## PROCESSING NOTES

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Remove hopper magnets.

Desiccant Type Dryer Required.

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This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein.

Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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