



Product Data Sheet & General Processing Conditions

RTP 399 X 115062 F Polycarbonate (PC) Carbon Nanotube Electrically Conductive ESD Protection High Purity

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.21	1.21	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0060 - 0.0080 in/in	0.60 - 0.80 %	D 955

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	2.0 ft-lbs/in	107 J/m	D 256
unnotched 1/8 in (3.2 mm) section	No Break	No Break	D 4812
Tensile Strength	9500 psi	66 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.35 x 10 ⁶ psi	2413 MPa	D 638
Flexural Strength	15000 psi	103 MPa	D 790
Flexural Modulus	0.40 x 10 ⁶ psi	2758 MPa	D 790

ELECTRICAL

Volume Resistivity	1E1 - 1E3 ohm.cm	1E1 - 1E3 ohm.cm	D 257
Surface Resistivity	1E4 - 1E5 ohm/sq	1E4 - 1E5 ohm/sq	D 257
Surface Resistance	1E3 - 1E4 ohm	1E3 - 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	550 - 600 °F	288 - 316 °C
Mold Temperature	180 - 250 °F	82 - 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

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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