



**Product Data Sheet &
General Processing Conditions**

**RTP 3481-1
Liquid Crystal Polymer (LCP)
Carbon Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	10 %	10 %	
Specific Gravity	1.43	1.43	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 in/in	0.10 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	6.0 ft-lbs/in	320 J/m	D 256
unnotched 1/8 in (3.2 mm) section	16.0 ft-lbs/in	854 J/m	D 4812
Tensile Strength	26000 psi	179 MPa	D 638
Tensile Elongation	3.0 - 4.0 %	3.0 - 4.0 %	D 638
Tensile Modulus	2.00 x 10 ⁶ psi	13790 MPa	D 638
Flexural Strength	32000 psi	221 MPa	D 790
Flexural Modulus	1.70 x 10 ⁶ psi	11722 MPa	D 790

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	420 °F	216 °C	D 648
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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	5000 - 12000 psi	34 - 83 MPa
Melt Temperature	520 - 575 °F	271 - 302 °C
Mold Temperature	100 - 200 °F	38 - 93 °C
Drying	4 hrs @ 300 °F	4 hrs @ 149 °C

PROCESSING NOTES

The key to successfully molding this material is to start mold open cycles as soon as the screw reaches its retracted position.

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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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