



**Product Data Sheet &
General Processing Conditions**

**RTP 3499-3 X 93110
Liquid Crystal Polymer (LCP)
Encapsulation Grade**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.84	1.84	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0020 in/in	0.20 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.5 ft-lbs/in	80 J/m	D 256
unnotched 1/8 in (3.2 mm) section	4.5 ft-lbs/in	240 J/m	D 4812
Tensile Strength	14500 psi	100 MPa	D 638
Tensile Elongation	1.0 - 1.5 %	1.0 - 1.5 %	D 638
Tensile Modulus	2.50 x 10 ⁶ psi	17238 MPa	D 638
Flexural Strength	24000 psi	165 MPa	D 790
Flexural Modulus	2.40 x 10 ⁶ psi	16548 MPa	D 790

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	515 °F	268 °C	D 648
@ 66 psi (455 kPa)	535 °F	279 °C	D 648
Coefficient of Linear Thermal Expansion Flow Direction	1.4 x 10 ⁻⁵ /°F	2.5 x 10 ⁻⁵ /°C	E 831
Transverse Direction	5.0 x 10 ⁻⁵ /°F	9.0 x 10 ⁻⁵ /°C	E 831

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	12000 - 18000 psi	83 - 124 MPa
Melt Temperature	630 - 690 °F	332 - 366 °C
Mold Temperature	150 - 250 °F	66 - 121 °C
Drying	8 hrs @ 300 °F	8 hrs @ 149 °C
Dew Point	-20 °F	-29 °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.