



**Product Data Sheet &  
General Processing Conditions**

**RTP 3499-3 X 113393 A  
Liquid Crystal Polymer (LCP)  
Glass Fiber  
LDS Platable**

Dielectric Constant K: 4.18 at 1 GHz, 4.02 at 3 GHz, 4.04 at 5 GHz Dissipation factor DF: 0.0067 at 1 GHz, 0.0059 at 3 GHz, 0.0056 at 5 GHz

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Specific Gravity	1.76	1.76	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0015 in/in	0.15 %	D 955

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	3.9 ft-lbs/in	208 J/m	D 256
unnotched 1/8 in (3.2 mm) section	14.0 ft-lbs/in	747 J/m	D 4812
Tensile Strength	17900 psi	123 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	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	1.80 x 10 <sup>6</sup> psi	12411 MPa	D 790

**ELECTRICAL**

Dielectric Constant, 1 MHz, Dry	3.8	3.8	D 150
Dissipation Factor, 1 MHz, Dry	0.0300	0.0300	D 150

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	455 °F	235 °C	D 648
@ 66 psi (455 kPa)	530 °F	277 °C	D 648
Ignition Resistance* Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801
Coefficient of Linear Thermal Expansion Flow Direction	0.3 x 10 <sup>-5</sup> /°F	0.6 x 10 <sup>-5</sup> /°C	E 831
Transverse Direction	3.6 x 10 <sup>-5</sup> /°F	6.5 x 10 <sup>-5</sup> /°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.

\* This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

\*\* Values per RTP Company testing.

**GENERAL PROCESSING FOR INJECTION MOLDING**

	<b>English</b>	<b>SI Metric</b>
Injection Pressure	12000 - 18000 psi	83 - 124 MPa
Melt Temperature	620 - 680 °F	327 - 360 °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.

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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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