



**Product Data Sheet &  
General Processing Conditions**

**RTP 3400 M-350  
Liquid Crystal Polymer (LCP)  
Mineral**

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

| PERMANENCE                                   | English      | SI Metric | ASTM TEST |
|----------------------------------------------|--------------|-----------|-----------|
| Specific Gravity                             | 1.86         | 1.86      | D 792     |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0002 in/in | 0.02 %    | D 955     |
| Water Absorption, 24 hrs @ 23°C              | 0.100 %      | 0.100 %   | D 570     |

**MECHANICAL**

|                                                          |                            |             |        |
|----------------------------------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.1 ft-lbs/in              | 59 J/m      | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 10.0 ft-lbs/in             | 534 J/m     | D 4812 |
| Tensile Strength                                         | 13000 psi                  | 90 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                                        | 16000 psi                  | 110 MPa     | D 790  |
| Flexural Modulus                                         | 1.50 x 10 <sup>6</sup> psi | 10342 MPa   | D 790  |
| Compressive Strength                                     | 7500 psi                   | 52 MPa      | D 695  |

**ELECTRICAL**

|                                  |         |            |       |
|----------------------------------|---------|------------|-------|
| Dielectric Strength, S/T, in oil | 900 VPM | 35.4 kV/mm | D 149 |
| Dielectric Constant, 1 MHz, Dry  | 3.5     | 3.5        | D 150 |
| Dissipation Factor, 1 MHz, Dry   | 0.0340  | 0.0340     | D 150 |

**THERMAL**

|                                                |               |              |        |
|------------------------------------------------|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 470 °F        | 243 °C       | D 648  |
| Ignition Resistance*<br>Flammability**         | V-0 @ 1/16 in | V-0 @ 1.5 mm | D 3801 |

**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**

|                    | 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.