



**Product Data Sheet &  
General Processing Conditions**

**RTP 2199 X 115079 B  
Polyetherimide (PEI)  
Carbon Nanotube  
Electrically Conductive  
ESD Protection  
High Purity**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|-----------------------|------------------|------------------|
| Specific Gravity                             | 1.29                  | 1.29             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0045 - 0.0075 in/in | 0.45 - 0.75 %    | D 955            |

**MECHANICAL**

|  |                            |             |        |
|--|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 0.5 ft-lbs/in              | 27 J/m      | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 10.5 ft-lbs/in             | 561 J/m     | D 4812 |
| Tensile Strength   | 14000 psi                  | 97 MPa      | D 638  |
| Tensile Elongation                                       | 2.0 - 5.0 %                | 2.0 - 5.0 % | D 638  |
| Tensile Modulus  | 0.48 x 10 <sup>6</sup> psi | 3310 MPa    | D 638  |
| Flexural Strength  | 23500 psi                  | 162 MPa     | D 790  |
| Flexural Modulus   | 0.56 x 10 <sup>6</sup> psi | 3861 MPa    | D 790  |

**ELECTRICAL**

|                     |              |              |                    |
|---------------------|--------------|--------------|--------------------|
| Volume Resistivity  | < 1E2 ohm.cm | < 1E2 ohm.cm | D 257              |
| Surface Resistivity | < 1E6 ohm/sq | < 1E6 ohm/sq | D 257              |
| Surface Resistance  | < 1E5 ohm    | < 1E5 ohm    | ESD STM11.11       |
| Static Decay        | < 0.50 s     | < 0.50 s     | FTMS101C<br>4046.1 |

**THERMAL**

|  |               |              |        |
|--|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 390 °F        | 199 °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**

|                    | <b>English</b>    | <b>SI Metric</b> |
|--------------------|-------------------|------------------|
| Injection Pressure | 12000 - 18000 psi | 83 - 124 MPa     |
| Melt Temperature   | 670 - 750 °F      | 354 - 399 °C     |
| Mold Temperature   | 275 - 350 °F      | 135 - 177 °C     |
| Drying             | 4 hrs @ 300 °F    | 4 hrs @ 149 °C   |
| Moisture Content   | 0.04 %            | 0.04 %           |
| Dew Point          | -20 °F            | -29 °C           |