



**Product Data Sheet &  
General Processing Conditions**

**RTP 4287  
Thermoplastic Polyimide (TPI)  
Carbon Fiber**

Properties are based on annealed specimens.

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

| <b>PERMANENCE</b>                            | <b>English</b> | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|----------------|------------------|------------------|
| Primary Additive                             | 40 %           | 40 %             |                  |
| Specific Gravity                             | 1.42           | 1.42             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0010 in/in   | 0.10 %           | D 955            |

**MECHANICAL**

|  |                            |           |        |
|--|----------------------------|-----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.6 ft-lbs/in              | 85 J/m    | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 12.0 ft-lbs/in             | 641 J/m   | D 4812 |
| Tensile Strength   | 35000 psi                  | 241 MPa   | D 638  |
| Tensile Elongation                                       | 1.5 %                      | 1.5 %     | D 638  |
| Tensile Modulus  | 4.20 x 10 <sup>6</sup> psi | 28959 MPa | D 638  |
| Flexural Strength  | 50000 psi                  | 345 MPa   | D 790  |
| Flexural Modulus   | 3.70 x 10 <sup>6</sup> psi | 25512 MPa | D 790  |

**THERMAL**

|  |               |              |        |
|--|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | > 600 °F      | > 316 °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 | 20000 - 28000 psi | 138 - 193 MPa    |
| Melt Temperature   | 750 - 780 °F      | 399 - 416 °C     |
| Mold Temperature   | 350 - 450 °F      | 177 - 232 °C     |
| Drying             | 6 hrs @ 400 °F    | 6 hrs @ 204 °C   |
| Moisture Content   | 0.01 %            | 0.01 %           |
| Dew Point          | -40 °F            | -40 °C           |

**PROCESSING NOTES**

Desiccant Type Dryer Required.