



**Product Data Sheet &  
General Processing Conditions**

**RTP 285 FR  
Nylon 6/6 (PA)  
Carbon Fiber  
Flame Retardant**

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

| PERMANENCE                      | English               | SI Metric     | ASTM TEST |
|---------------------------------|-----------------------|---------------|-----------|
| Primary Additive                | 30 %                  | 30 %          |           |
| Specific Gravity                | 1.57                  | 1.57          | D 792     |
| Molding Shrinkage               |                       |               |           |
| 1/8 in (3.2 mm) section         | 0.0002 - 0.0006 in/in | 0.02 - 0.06 % | D 955     |
| Water Absorption, 24 hrs @ 23°C | 0.650 %               | 0.650 %       | D 570     |

**MECHANICAL**

|                                   |                            |             |        |
|-----------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod             |                            |             |        |
| notched 1/8 in (3.2 mm) section   | 1.8 ft-lbs/in              | 96 J/m      | D 256  |
| unnotched 1/8 in (3.2 mm) section | 12.5 ft-lbs/in             | 667 J/m     | D 4812 |
| Tensile Strength                  | 31000 psi                  | 214 MPa     | D 638  |
| Tensile Elongation                | 1.0 - 2.0 %                | 1.0 - 2.0 % | D 638  |
| Tensile Modulus                   | 3.30 x 10 <sup>6</sup> psi | 22754 MPa   | D 638  |
| Flexural Strength                 | 48000 psi                  | 331 MPa     | D 790  |
| Flexural Modulus                  | 2.85 x 10 <sup>6</sup> psi | 19651 MPa   | D 790  |

**ELECTRICAL**

|                    |              |              |       |
|--------------------|--------------|--------------|-------|
| Volume Resistivity | < 1E2 ohm.cm | < 1E2 ohm.cm | D 257 |
|--------------------|--------------|--------------|-------|

**THERMAL**

|                        |               |              |        |
|------------------------|---------------|--------------|--------|
| Deflection Temperature |               |              |        |
| @ 264 psi (1820 kPa)   | 500 °F        | 260 °C       | D 648  |
| Ignition Resistance*   |               |              |        |
| 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 | 10000 - 18000 psi | 69 - 124 MPa  |
| Melt Temperature   | 530 - 570 °F      | 277 - 299 °C  |
| Mold Temperature   | 150 - 225 °F      | 66 - 107 °C   |
| Drying             | 4 hrs @ 175 °F    | 4 hrs @ 79 °C |
| Moisture Content   | 0.20 %            | 0.20 %        |
| Dew Point          | 0 °F              | -18 °C        |

**PROCESSING NOTES**

Desiccant Type Dryer Required.