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Ponciplastics.com



## Product Data Sheet & General Processing Conditions

### RTP 287 Nylon 6/6 (PA) Carbon Fiber

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

| PERMANENCE                                   | English               | SI Metric     | ASTM TEST |
|----------------------------------------------|-----------------------|---------------|-----------|
| Primary Additive                             | 40 %                  | 40 %          |           |
| Specific Gravity                             | 1.31                  | 1.31          | D 792     |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0005 - 0.0020 in/in | 0.05 - 0.20 % | D 955     |

#### MECHANICAL

|                                                          |                            |             |        |
|----------------------------------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 2.2 ft-lbs/in              | 117 J/m     | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 20.0 ft-lbs/in             | 1068 J/m    | D 4812 |
| Tensile Strength                                         | 40000 psi                  | 276 MPa     | D 638  |
| Tensile Elongation                                       | 1.0 - 2.0 %                | 1.0 - 2.0 % | D 638  |
| Tensile Modulus                                          | 4.10 x 10 <sup>6</sup> psi | 28270 MPa   | D 638  |
| Flexural Strength                                        | 54000 psi                  | 372 MPa     | D 790  |
| Flexural Modulus                                         | 3.70 x 10 <sup>6</sup> psi | 25512 MPa   | D 790  |

#### ELECTRICAL

|                    |              |              |       |
|--------------------|--------------|--------------|-------|
| Volume Resistivity | < 1E1 ohm.cm | < 1E1 ohm.cm | D 257 |
|--------------------|--------------|--------------|-------|

#### THERMAL

|                                                |              |             |       |
|------------------------------------------------|--------------|-------------|-------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 485 °F       | 252 °C      | D 648 |
| Ignition Resistance*<br>Flammability**         | HB @ 1/16 in | HB @ 1.5 mm | D 635 |

#### 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.