



**Product Data Sheet &  
General Processing Conditions**

**RTP 200 E  
Amorphous Nylon (PA)**

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

| PERMANENCE                                   | English               | SI Metric     | ASTM TEST |
|----------------------------------------------|-----------------------|---------------|-----------|
| Specific Gravity                             | 1.18                  | 1.18          | D 792     |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0050 - 0.0070 in/in | 0.50 - 0.70 % | D 955     |
| Water Absorption, 24 hrs @ 23°C              | 0.450 %               | 0.450 %       | D 570     |

**MECHANICAL**

|                                                          |                            |          |        |
|----------------------------------------------------------|----------------------------|----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.5 ft-lbs/in              | 80 J/m   | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | No Break                   | No Break | D 4812 |
| Tensile Strength                                         | 14000 psi                  | 97 MPa   | D 638  |
| Tensile Elongation                                       | > 10.0 %                   | > 10.0 % | D 638  |
| Tensile Modulus                                          | 0.34 x 10 <sup>6</sup> psi | 2344 MPa | D 638  |
| Flexural Strength                                        | 18000 psi                  | 124 MPa  | D 790  |
| Flexural Modulus                                         | 0.40 x 10 <sup>6</sup> psi | 2758 MPa | D 790  |
| Hardness<br>Rockwell, R                                  | 128                        | 128      | D 785  |

**THERMAL**

|                                                           |                            |                            |        |
|-----------------------------------------------------------|----------------------------|----------------------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa)            | 253 °F                     | 123 °C                     | D 648  |
| @ 66 psi (455 kPa)                                        | 261 °F                     | 127 °C                     | D 648  |
| Ignition Resistance*<br>Flammability**                    | V-2 @ 1/16 in              | V-2 @ 1.5 mm               | D 3801 |
| Coefficient of Linear Thermal Expansion<br>Flow Direction | 3.4 x 10 <sup>-5</sup> /°F | 6.1 x 10 <sup>-5</sup> /°C | E 831  |

**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 - 15000 psi | 69 - 103 MPa  |
| Melt Temperature   | 520 - 570 °F      | 271 - 299 °C  |
| Mold Temperature   | 150 - 210 °F      | 66 - 99 °C    |
| Drying             | 4 hrs @ 175 °F    | 4 hrs @ 79 °C |
| Moisture Content   | 0.10 %            | 0.10 %        |
| Dew Point          | -30 °F            | -34 °C        |

**PROCESSING NOTES**

Desiccant Type Dryer Required.