



**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 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 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 ⁶ psi | 2344 MPa | D 638 |
| Flexural Strength | 18000 psi | 124 MPa | D 790 |
| Flexural Modulus | 0.40 x 10 ⁶ psi | 2758 MPa | D 790 |
| Hardness Rockwell, R | 128 | 128 | D 785 |

THERMAL

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