



**Product Data Sheet &  
General Processing Conditions**

**RTP 200 FR UV  
Nylon 6/6 (PA)  
Unreinforced  
Flame Retardant  
UV Stabilized**

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

| PERMANENCE                                   | English               | SI Metric     | ASTM TEST |
|----------------------------------------------|-----------------------|---------------|-----------|
| Specific Gravity                             | 1.36                  | 1.36          | D 792     |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0110 - 0.0170 in/in | 1.10 - 1.70 % | D 955     |
| Water Absorption, 24 hrs @ 23°C              | 0.900 %               | 0.900 %       | D 570     |

**MECHANICAL**

|                                                          |                            |             |        |
|----------------------------------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 0.7 ft-lbs/in              | 37 J/m      | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 10.0 ft-lbs/in             | 534 J/m     | D 4812 |
| Tensile Strength                                         | 10000 psi                  | 69 MPa      | D 638  |
| Tensile Elongation                                       | 4.0 - 6.0 %                | 4.0 - 6.0 % | D 638  |
| Tensile Modulus                                          | 0.55 x 10 <sup>6</sup> psi | 3792 MPa    | D 638  |
| Flexural Strength                                        | 16500 psi                  | 114 MPa     | D 790  |
| Flexural Modulus                                         | 0.50 x 10 <sup>6</sup> psi | 3448 MPa    | D 790  |
| Hardness<br>Rockwell, R                                  | 115                        | 115         | D 785  |

**ELECTRICAL**

|                                  |               |               |       |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 500 VPM       | 19.7 kV/mm    | D 149 |
| Dielectric Constant, 1 MHz, Dry  | 3.7           | 3.7           | D 150 |
| Dissipation Factor, 1 MHz, Dry   | 0.0200        | 0.0200        | D 150 |
| Volume Resistivity               | > 1E15 ohm.cm | > 1E15 ohm.cm | D 257 |

**THERMAL**

|                                                |               |              |        |
|------------------------------------------------|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 165 °F        | 74 °C        | D 648  |
| @ 66 psi (455 kPa)                             | 410 °F        | 210 °C       | D 648  |
| Ignition Resistance*                           |               |              |        |
| Flammability**                                 | V-0 @ 1/32 in | V-0 @ 0.8 mm | D 3801 |
| Limiting Oxygen Index**                        | 33.0 %        | 33.00 %      | D 2863 |

**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        |