




**Product Data Sheet &
General Processing Conditions**

**RTP 200 D FR
Nylon 6/12 (PA)
Unreinforced
Flame Retardant**



PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|---------------------------------|-----------------------|------------------|------------------|
| Specific Gravity | 1.35 | 1.35 | D 792 |
| Molding Shrinkage | | | |
| 1/8 in (3.2 mm) section | 0.0150 - 0.0200 in/in | 1.50 - 2.00 % | D 955 |
| Water Absorption, 24 hrs @ 23°C | 0.350 % | 0.350 % | D 570 |

MECHANICAL

| | | | |
|-----------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod | | | |
| 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 | 4.0 ft-lbs/in | 214 J/m | D 4812 |
| Tensile Strength | 6500 psi | 45 MPa | D 638 |
| Tensile Elongation | 3.0 - 4.0 % | 3.0 - 4.0 % | D 638 |
| Tensile Modulus | 0.45 x 10 ⁶ psi | 3103 MPa | D 638 |
| Flexural Strength | 11500 psi | 79 MPa | D 790 |
| Flexural Modulus | 0.40 x 10 ⁶ psi | 2758 MPa | D 790 |

ELECTRICAL

| | | | |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 500 VPM | 19.7 kV/mm | D 149 |
| Dielectric Constant, 1 MHz, Dry | 3.5 | 3.5 | D 150 |
| Dissipation Factor, 1 MHz, Dry | 0.0200 | 0.0200 | D 150 |
| Volume Resistivity | > 1E13 ohm.cm | > 1E13 ohm.cm | D 257 |

THERMAL

| | | | |
|------------------------|---------------|--------------|-------|
| Deflection Temperature | | | |
| @ 264 psi (1820 kPa) | 190 °F | 88 °C | D 648 |
| @ 66 psi (455 kPa) | 355 °F | 179 °C | D 648 |
| Ignition Resistance* | | | |
| Flammability | V-0 @ 1/32 in | V-0 @ 0.8 mm | UL94 |

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.

GENERAL PROCESSING FOR INJECTION MOLDING

| | English | SI Metric |
|--------------------|-------------------|------------------|
| Injection Pressure | 10000 - 18000 psi | 69 - 124 MPa |
| Melt Temperature | 480 - 545 °F | 249 - 285 °C |
| Mold Temperature | 140 - 200 °F | 60 - 93 °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.