



**Product Data Sheet &
General Processing Conditions**

**RTP 203 A FR
Nylon 6 (PA)
Glass Fiber
Flame Retardant**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|---------------------------------|-----------------------|------------------|------------------|
| Primary Additive | 20 % | 20 % | |
| Specific Gravity | 1.58 | 1.58 | D 792 |
| Molding Shrinkage | | | |
| 1/8 in (3.2 mm) section | 0.0030 - 0.0050 in/in | 0.30 - 0.50 % | D 955 |
| Water Absorption, 24 hrs @ 23°C | 1.400 % | 1.400 % | 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 | 11.0 ft-lbs/in | 587 J/m | D 4812 |
| Tensile Strength | 16000 psi | 110 MPa | D 638 |
| Tensile Elongation | 2.0 - 3.0 % | 2.0 - 3.0 % | D 638 |
| Tensile Modulus | 1.25 x 10 ⁶ psi | 8619 MPa | D 638 |
| Flexural Strength | 27000 psi | 186 MPa | D 790 |
| Flexural Modulus | 1.10 x 10 ⁶ psi | 7584 MPa | D 790 |
| Hardness | | | |
| Rockwell, R | 118 | 118 | D 785 |

ELECTRICAL

| | | | |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 475 VPM | 18.7 kV/mm | D 149 |
| Dielectric Constant, 1 MHz, Dry | 4.0 | 4.0 | D 150 |
| Dissipation Factor, 1 MHz, Dry | 0.0150 | 0.0150 | D 150 |
| Volume Resistivity | > 1E14 ohm.cm | > 1E14 ohm.cm | D 257 |

THERMAL

| | | | |
|------------------------|---------------|--------------|--------|
| Deflection Temperature | | | |
| @ 264 psi (1820 kPa) | 370 °F | 188 °C | D 648 |
| @ 66 psi (455 kPa) | 400 °F | 204 °C | D 648 |
| Ignition Resistance* | | | |
| Flammability** | V-0 @ 1/16 in | V-0 @ 1.5 mm | D 3801 |
| Flammability** | 5VA @ 1/8 in | 5VA @ 3.0 mm | D 5048 |

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 | 470 - 535 °F | 243 - 279 °C |
| Mold Temperature | 130 - 200 °F | 54 - 93 °C |
| Drying | 2 hrs @ 180 °F | 2 hrs @ 82 °C |
| Moisture Content | 0.20 % | 0.20 % |
| Dew Point | 0 °F | -18 °C |