



**Product Data Sheet &
General Processing Conditions**

**RTP 204 D FR
Nylon 6/12 (PA)
Glass Fiber
Flame Retardant**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|---------------------------------|-----------------------|------------------|------------------|
| Primary Additive | 25 % | 25 % | |
| Specific Gravity | 1.56 | 1.56 | D 792 |
| Molding Shrinkage | | | |
| 1/8 in (3.2 mm) section | 0.0025 - 0.0040 in/in | 0.25 - 0.40 % | D 955 |
| Water Absorption, 24 hrs @ 23°C | 0.200 % | 0.200 % | D 570 |

MECHANICAL

| | | | |
|-----------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod | | | |
| notched 1/8 in (3.2 mm) section | 1.4 ft-lbs/in | 75 J/m | D 256 |
| unnotched 1/8 in (3.2 mm) section | 12.0 ft-lbs/in | 641 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 | 1.30 x 10 ⁶ psi | 8964 MPa | D 638 |
| Flexural Strength | 25000 psi | 172 MPa | D 790 |
| Flexural Modulus | 1.00 x 10 ⁶ psi | 6895 MPa | D 790 |
| Hardness | | | |
| Rockwell, R | 116 | 116 | D 785 |

ELECTRICAL

| | | | |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 475 VPM | 18.7 kV/mm | D 149 |
| Dielectric Constant, 1 MHz, Dry | 4.1 | 4.1 | D 150 |
| Dissipation Factor, 1 MHz, Dry | 0.0140 | 0.0140 | D 150 |
| Volume Resistivity | > 1E13 ohm.cm | > 1E13 ohm.cm | D 257 |

THERMAL

| | | | |
|------------------------|---------------|--------------|--------|
| Deflection Temperature | | | |
| @ 264 psi (1820 kPa) | 380 °F | 193 °C | D 648 |
| @ 66 psi (455 kPa) | 390 °F | 199 °C | D 648 |
| Ignition Resistance* | | | |
| Flammability** | V-0 @ 1/16 in | V-0 @ 1.5 mm | D 3801 |

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 | 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 |