



**Product Data Sheet &
General Processing Conditions**

**RTP 4406
High Temperature Nylon (HTN)
Glass Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|--|-----------------------|------------------|------------------|
| Primary Additive | 35 % | 35 % | |
| Specific Gravity | 1.46 | 1.46 | D 792 |
| Molding Shrinkage 1/8 in (3.2 mm) section | 0.0020 - 0.0030 in/in | 0.20 - 0.30 % | D 955 |
| Water Absorption, 24 hrs @ 23°C | 0.400 % | 0.400 % | 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 | 13.0 ft-lbs/in | 694 J/m | D 4812 |
| Tensile Strength | 26000 psi | 179 MPa | D 638 |
| Tensile Elongation | 2.4 % | 2.4 % | D 638 |
| Tensile Modulus | 1.60 x 10 ⁶ psi | 11032 MPa | D 638 |
| Flexural Strength | 38000 psi | 262 MPa | D 790 |
| Flexural Modulus | 1.50 x 10 ⁶ psi | 10342 MPa | D 790 |
| Hardness Rockwell, R | 125 | 125 | D 785 |

THERMAL

| | | | |
|--|--------|--------|-------|
| Deflection Temperature @ 264 psi (1820 kPa) | 500 °F | 260 °C | D 648 |
|--|--------|--------|-------|

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.

GENERAL PROCESSING FOR INJECTION MOLDING

| | English | SI Metric |
|--------------------|-------------------|------------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa |
| Melt Temperature | 590 - 650 °F | 310 - 343 °C |
| Mold Temperature | 275 - 325 °F | 135 - 163 °C |
| Drying | 4 hrs @ 175 °F | 4 hrs @ 79 °C |
| Moisture Content | 0.10 % | 0.10 % |
| Dew Point | -40 °F | -40 °C |

PROCESSING NOTES

Desiccant Type Dryer Required.