



**Product Data Sheet &
General Processing Conditions**

**RTP 4483
High Temperature Nylon (HTN)
Carbon Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|--|-----------------------|------------------|------------------|
| Primary Additive | 20 % | 20 % | |
| Specific Gravity | 1.26 | 1.26 | D 792 |
| Molding Shrinkage 1/8 in (3.2 mm) section | 0.0005 - 0.0030 in/in | 0.05 - 0.30 % | D 955 |
| Water Absorption, 24 hrs @ 23°C | 0.450 % | 0.450 % | D 570 |

MECHANICAL

| | | | |
|--|----------------------------|-----------|--------|
| Impact Strength, Izod notched 1/8 in (3.2 mm) section | 1.0 ft-lbs/in | 53 J/m | D 256 |
| unnotched 1/8 in (3.2 mm) section | 10.0 ft-lbs/in | 534 J/m | D 4812 |
| Tensile Strength | 32000 psi | 221 MPa | D 638 |
| Tensile Elongation | 1.6 % | 1.6 % | D 638 |
| Tensile Modulus | 2.50 x 10 ⁶ psi | 17238 MPa | D 638 |
| Flexural Strength | 44000 psi | 303 MPa | D 790 |
| Flexural Modulus | 2.20 x 10 ⁶ psi | 15169 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.