



**Product Data Sheet &  
General Processing Conditions**

**RTP 4481  
High Temperature Nylon (HTN)  
Carbon Fiber**

**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	10 %	10 %	
Specific Gravity	1.22	1.22	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0020 - 0.0050 in/in	0.20 - 0.50 %	D 955
Water Absorption, 24 hrs @ 23°C	0.500 %	0.500 %	D 570

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	0.6 ft-lbs/in	32 J/m	D 256
unnotched 1/8 in (3.2 mm) section	5.0 ft-lbs/in	267 J/m	D 4812
Tensile Strength	20000 psi	138 MPa	D 638
Tensile Elongation	1.5 %	1.5 %	D 638
Tensile Modulus	1.40 x 10 <sup>6</sup> psi	9653 MPa	D 638
Flexural Strength	28000 psi	193 MPa	D 790
Flexural Modulus	1.10 x 10 <sup>6</sup> psi	7584 MPa	D 790
Hardness Rockwell, R	124	124	D 785

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	450 °F	232 °C	D 648
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**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**

	<b>English</b>	<b>SI Metric</b>
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.