



**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.

21 Jan 2005 CDH

This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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