



**Product Data Sheet &  
General Processing Conditions**

**RTP 4405 FR  
High Temperature Nylon (HTN)  
Glass Fiber  
Flame Retardant**

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	30 %	30 %	
Specific Gravity	1.65	1.65	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0015 - 0.0030 in/in	0.15 - 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	2.0 ft-lbs/in	107 J/m	D 256
unnotched 1/8 in (3.2 mm) section	12.0 ft-lbs/in	641 J/m	D 4812
Tensile Strength	24000 psi	165 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	2.00 x 10 <sup>6</sup> psi	13790 MPa	D 638
Flexural Strength	32000 psi	221 MPa	D 790
Flexural Modulus	1.90 x 10 <sup>6</sup> psi	13100 MPa	D 790
Hardness Rockwell, R	125	125	D 785

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	525 °F	274 °C	D 648
Ignition Resistance* Flammability**	V-0 @ 1/32 in	V-0 @ 0.8 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**

	<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.