



**Product Data Sheet &  
General Processing Conditions**

**RTP 4081  
Polyphthalamide (PPA)  
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	1.24	1.24	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 - 0.0040 in/in	0.10 - 0.40 %	D 955

**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	5.5 ft-lbs/in	294 J/m	D 4812
Tensile Strength	22000 psi	152 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	1.60 x 10 <sup>6</sup> psi	11032 MPa	D 638
Flexural Strength	31000 psi	214 MPa	D 790
Flexural Modulus	1.20 x 10 <sup>6</sup> psi	8274 MPa	D 790

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	480 °F	249 °C	D 648
Ignition Resistance* Flammability**	HB @ 1/16 in	HB @ 1.5 mm	D 635

**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 - 18000 psi	69 - 124 MPa
Melt Temperature	575 - 625 °F	302 - 329 °C
Mold Temperature	275 - 325 °F	135 - 163 °C
Drying	4 - 6 hrs @ 225 °F	4 - 6 hrs @ 107 °C
Moisture Content	0.05 %	0.05 %
Dew Point	-25 °F	-32 °C

**PROCESSING NOTES**

Desiccant Type Dryer Required.