



**Product Data Sheet &  
General Processing Conditions**

**RTP 4081 TFE 5  
Polyphthalamide (PPA)  
Carbon Fiber  
PTFE Lubricated**

**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	1.27	1.27	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 - 0.0030 in/in	0.10 - 0.30 %	D 955

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	0.8 ft-lbs/in	43 J/m	D 256
unnotched 1/8 in (3.2 mm) section	6.0 ft-lbs/in	320 J/m	D 4812
Tensile Strength	22000 psi	152 MPa	D 638
Tensile Elongation	1.5 - 3.0 %	1.5 - 3.0 %	D 638
Tensile Modulus	1.45 x 10 <sup>6</sup> psi	9998 MPa	D 638
Flexural Strength	31000 psi	214 MPa	D 790
Flexural Modulus	1.25 x 10 <sup>6</sup> psi	8619 MPa	D 790

**ELECTRICAL**

Volume Resistivity	< 1E6 ohm.cm	< 1E6 ohm.cm	D 257
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**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.