



**Product Data Sheet &  
General Processing Conditions**

**RTP 4004 FR A HS  
Polyphthalamide (PPA)  
Glass Fiber  
Flame Retardant  
Heat Stabilized**

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	25 %	25 %	
Specific Gravity	1.68	1.68	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0020 - 0.0040 in/in	0.20 - 0.40 %	D 955
Water Absorption, 24 hrs @ 23°C	0.200 %	0.200 %	D 570

**MECHANICAL**

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.2 ft-lbs/in	64 J/m	D 256
unnotched 1/8 in (3.2 mm) section	9.0 ft-lbs/in	481 J/m	D 4812
Tensile Strength	20000 psi	138 MPa	D 638
Tensile Elongation	1.5 %	1.5 %	D 638
Tensile Modulus	1.75 x 10 <sup>6</sup> psi	12066 MPa	D 638
Flexural Strength	27000 psi	186 MPa	D 790
Flexural Modulus	1.60 x 10 <sup>6</sup> psi	11032 MPa	D 790

**ELECTRICAL**

Volume Resistivity	> 1E15 ohm.cm	> 1E15 ohm.cm	D 257
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**THERMAL**

Deflection Temperature			
@ 264 psi (1820 kPa)	485 °F	252 °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 - 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.