




**Product Data Sheet &  
General Processing Conditions**

**RTP 4099 X 134218 B  
Polyphthalamide (PPA)  
Carbon Fiber  
Impact Modified  
Ultra Performance**



**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	1.24	1.24	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0005 - 0.0020 in/in	0.05 - 0.20 %	D 955

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	3.0 ft-lbs/in	160 J/m	D 256
unnotched 1/8 in (3.2 mm) section	24.0 ft-lbs/in	1281 J/m	D 4812
Tensile Strength	35000 psi	241 MPa	D 638
Tensile Elongation	1.0 - 3.0 %	1.0 - 3.0 %	D 638
Tensile Modulus	3.30 x 10 <sup>6</sup> psi	22754 MPa	D 638
Flexural Strength	50000 psi	345 MPa	D 790
Flexural Modulus	2.70 x 10 <sup>6</sup> psi	18616 MPa	D 790

**ELECTRICAL**

Volume Resistivity	< 1E3 ohm.cm	< 1E3 ohm.cm	D 257
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**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	528 °F	276 °C	D 648
Ignition Resistance*			
Flammability	HB @ 1/16 in	HB @ 1.5 mm	UL94
Glow Wire Ignitability Temperature	725 °C @ 1/32 in	725 °C @ 0.8 mm	IEC 60695-2-13
Glow Wire Flammability Index	700 °C @ 1/32 in	700 °C @ 0.8 mm	IEC 60695-2-12

**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.

**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

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Desiccant Type Dryer Required.

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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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