



**Product Data Sheet &
General Processing Conditions**

**RTP 4087
Polyphthalamide (PPA)
Carbon Fiber Reinforced**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE		STANDARD
Primary Additive	40 %	
Density	1.38 g/cm ³	ISO 1183
Shrinkage, 4 mm Thickness		
Flow direction	0.05 - 0.20 %	ASTM D 955
MECHANICAL		
Impact Strength, Izod		
Notched, 4 mm thickness	7 kJ/m ²	ISO 180/1A
Unnotched, 4 mm thickness	45 kJ/m ²	ISO 180/1U
Tensile Strength	300 MPa	ISO 527
Tensile Elongation	1.0 %	ISO 527
Tensile Modulus	35000 MPa	ISO 527
Flexural Strength	435 MPa	ISO 178
Flexural Modulus	29000 MPa	ISO 178
ELECTRICAL		
Volume Resistivity	< 1E2 ohm.cm	IEC 60093
THERMAL		
Heat Deflection Temperature		
@ 1.80 MPa	277 °C	ISO 75
Ignition Resistance*		
Flammability**	HB @ 1.5 mm	ISO 1210

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

Injection Pressure	70 - 125 MPa
Injection Pressure	680 - 1240 bar
Melt Temperature	300 - 330 °C
Mold Temperature	135 - 160 °C
Drying	4 - 6 hrs @ 105 °C
Moisture Content	0.05 %
Dew Point	-30 °C

PROCESSING NOTES

Desiccant Type Dryer Required.

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.

No information supplied by RTP Company constitutes a warranty regarding product performance or use. Any information regarding performance or use is only offered as suggestion for investigation for use, based upon RTP Company or other customer experience. RTP Company makes no warranties, expressed or implied, concerning the suitability or fitness of any of its products for any particular purpose. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use. The disclosure of information herein is not a license to operate under, or a recommendation to infringe any patents.

RTP COMPANY • 580 EAST FRONT STREET • WINONA, MN 55987 • 507-454-6900