



**Product Data Sheet &
General Processing Conditions**

**RTP 4099 X 137099 D
Polyphthalamide (PPA)
Thermally Conductive
Electrically Conductive**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
-------------------	----------------	------------------	------------------

Specific Gravity	1.63	1.63	D 792
------------------	------	------	-------

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	0.8 ft-lbs/in	40 J/m	D 256
unnotched 1/8 in (3.2 mm) section	5.0 ft-lbs/in	267 J/m	D 4812
Tensile Strength	15000 psi	103 MPa	D 638
Tensile Elongation	1.0 %	1.0 %	D 638
Tensile Modulus	1.70 x 10 ⁶ psi	11722 MPa	D 638
Flexural Strength	20000 psi	138 MPa	D 790
Flexural Modulus	1.80 x 10 ⁶ psi	12411 MPa	D 790

ELECTRICAL

Surface Resistivity	< 1E6 ohm/sq	< 1E6 ohm/sq	D 257
---------------------	--------------	--------------	-------

THERMAL

Deflection Temperature			
@ 264 psi (1820 kPa)	> 450 °F	> 232 °C	D 648
Thermal Conductivity			
Through-plane	8.33 (BTU.in)/(hr.ft ² .°F)	1.20 W/(m.K)	E 1530
In-plane	41.66 (BTU.in)/(hr.ft ² .°F)	6.00 W/(m.K)	E 1461-92

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.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
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.

29 Dec 2015 DBG

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