



**Product Data Sheet &
General Processing Conditions**

**RTP 4085 A SI 2
(Hot Water Moldable) Polyphthalamide
(PPA)
Carbon Fiber
Silicone Lubricated**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	30 %	30 %	
Specific Gravity	1.30	1.30	D 792

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	11.2 ft-lbs/in	598 J/m	D 4812
Tensile Strength	37250 psi	257 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	3.55 x 10 ⁶ psi	24477 MPa	D 638
Flexural Strength	53000 psi	365 MPa	D 790
Flexural Modulus	2.80 x 10 ⁶ psi	19306 MPa	D 790

ELECTRICAL

Volume Resistivity	< 1E5 ohm.cm	< 1E5 ohm.cm	D 257
--------------------	--------------	--------------	-------

THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	> 525 °F	> 274 °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

	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	625 - 650 °F	329 - 343 °C
Mold Temperature	150 - 325 °F	66 - 163 °C
Drying	4 - 6 hrs @ 225 °F	4 - 6 hrs @ 107 °C
Moisture Content	0.10 %	0.10 %
Dew Point	-20 °F	-29 °C

PROCESSING NOTES

Desiccant Type Dryer Required.