



**Product Data Sheet &
General Processing Conditions**

RTP 4083 AR 10 TFE 15 SI 2
Polyphthalamide (PPA)
Carbon Fiber
Aramid Fiber
PTFE Lubricated
Silicone Lubricated

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	15 %	15 %	
Specific Gravity	1.39	1.39	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	1.1 ft-lbs/in	59 J/m	D 256
unnotched 1/8 in (3.2 mm) section	9.7 ft-lbs/in	518 J/m	D 4812
Tensile Strength	23500 psi	162 MPa	D 638
Tensile Elongation	1.0 - 2.0 %	1.0 - 2.0 %	D 638
Tensile Modulus	2.85 x 10 ⁶ psi	19651 MPa	D 638
Flexural Strength	34000 psi	234 MPa	D 790
Flexural Modulus	2.55 x 10 ⁶ psi	17582 MPa	D 790
ELECTRICAL			
Volume Resistivity	1E1 - 1E3 ohm.cm	1E1 - 1E3 ohm.cm	D 257
THERMAL			
Deflection Temperature @ 264 psi (1820 kPa)	> 500 °F	> 260 °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 - 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.