



**Product Data Sheet &
General Processing Conditions**

**RTP 900
Polysulfone (PSU)**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.24	1.24	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0070 in/in	0.70 %	D 955
Water Absorption, 24 hrs @ 23°C	0.220 %	0.220 %	D 570

MECHANICAL

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	1.0 ft-lbs/in	53 J/m	D 256
unnotched 1/8 in (3.2 mm) section	45.0 ft-lbs/in	2403 J/m	D 4812
Tensile Strength	10500 psi	72 MPa	D 638
Tensile Elongation	> 10.0 %	> 10.0 %	D 638
Tensile Modulus	0.37 x 10 ⁶ psi	2551 MPa	D 638
Flexural Strength	15000 psi	103 MPa	D 790
Flexural Modulus	0.39 x 10 ⁶ psi	2689 MPa	D 790
Compressive Strength	14000 psi	97 MPa	D 695
Hardness			
Rockwell, R	120	120	D 785

ELECTRICAL

Dielectric Strength, S/T, in oil	425 VPM	16.7 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.0	3.0	D 150
Dissipation Factor, 1 MHz, Dry	0.0030	0.0030	D 150
Arc Resistance	122 s	122 s	D 495
Volume Resistivity	> 1E15 ohm.cm	> 1E15 ohm.cm	D 257

THERMAL

Deflection Temperature			
@ 264 psi (1820 kPa)	345 °F	174 °C	D 648
@ 66 psi (455 kPa)	358 °F	181 °C	D 648
Ignition Resistance*			
Flammability**	V-1 @ 1/16 in	V-1 @ 1.5 mm	D 3801
Coefficient of Linear Thermal Expansion			
Flow Direction	3.1 x 10 ⁻⁵ /°F	5.6 x 10 ⁻⁵ /°C	E 831
Thermal Conductivity			
Through-plane	1.80 (BTU.in)/(hr.ft ² .°F)	0.26 W/(m.K)	E 1530

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	630 - 700 °F	332 - 371 °C
Mold Temperature	200 - 300 °F	93 - 149 °C
Drying	4 hrs @ 275 °F	4 hrs @ 135 °C
Moisture Content	0.15 %	0.15 %
Dew Point	-25 °F	-32 °C