



**Product Data Sheet &  
General Processing Conditions**

**RTP 900  
Polysulfone (PSU)**

**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
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 <sup>6</sup> psi	2551 MPa	D 638
Flexural Strength	15000 psi	103 MPa	D 790
Flexural Modulus	0.39 x 10 <sup>6</sup> 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 <sup>-5</sup> /°F	5.6 x 10 <sup>-5</sup> /°C	E 831
Thermal Conductivity Through-plane	1.80 (BTU.in)/(hr.ft <sup>2</sup> .°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**

	<b>English</b>	<b>SI Metric</b>
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