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.ft².°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

PROCESSING NOTES

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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.

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