



## Product Data Sheet & General Processing Conditions

### RTP 905 Z Polysulfone (PSU) Glass Fiber FDA Compliant Ingredients

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

PERMANENCE	English	SI Metric	ASTM TEST
Primary Additive	30 %	30 %	
Specific Gravity	1.46	1.46	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0010 in/in	0.10 %	D 955
<b>MECHANICAL</b>			
Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.5 ft-lbs/in	80 J/m	D 256
unnotched 1/8 in (3.2 mm) section	7.2 ft-lbs/in	384 J/m	D 4812
Tensile Strength	15500 psi	107 MPa	D 638
Tensile Elongation	2.1 %	2.1 %	D 638
Tensile Modulus	1.20 x 10 <sup>6</sup> psi	8274 MPa	D 638
Flexural Strength	22000 psi	152 MPa	D 790
Flexural Modulus	1.20 x 10 <sup>6</sup> psi	8274 MPa	D 790
Hardness Rockwell, R	123	123	D 785
<b>ELECTRICAL</b>			
Dielectric Strength, S/T, in oil	430 VPM	16.9 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.6	3.6	D 150
Dissipation Factor, 1 MHz, Dry	0.0050	0.0050	D 150
Arc Resistance	100 s	100 s	D 495
Volume Resistivity	> 1E12 ohm.cm	> 1E12 ohm.cm	D 257
<b>THERMAL</b>			
Deflection Temperature @ 264 psi (1820 kPa)	360 °F	182 °C	D 648
@ 66 psi (455 kPa)	370 °F	188 °C	D 648
Ignition Resistance*			
Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801
Limiting Oxygen Index**	36.0 %	36.00 %	D 2863
Coefficient of Linear Thermal Expansion			
Flow Direction	1.2 x 10 <sup>-5</sup> /°F	2.2 x 10 <sup>-5</sup> /°C	E 831
Transverse Direction	5.0 x 10 <sup>-5</sup> /°F	9.0 x 10 <sup>-5</sup> /°C	E 831
Thermal Conductivity Through-plane	2.10 (BTU.in)/(hr.ft².°F)	0.30 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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