



**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 |
| MECHANICAL | | | |
| 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 ⁶ psi | 8274 MPa | D 638 |
| Flexural Strength | 22000 psi | 152 MPa | D 790 |
| Flexural Modulus | 1.20 x 10 ⁶ psi | 8274 MPa | D 790 |
| Hardness Rockwell, R | 123 | 123 | D 785 |
| ELECTRICAL | | | |
| 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 |
| THERMAL | | | |
| 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 ⁻⁵ /°F | 2.2 x 10 ⁻⁵ /°C | E 831 |
| Transverse Direction | 5.0 x 10 ⁻⁵ /°F | 9.0 x 10 ⁻⁵ /°C | E 831 |
| Thermal Conductivity Through-plane | 2.10 (BTU.in)/(hr.ft ² .°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 |
