



Product Data Sheet & General Processing Conditions

RTP 1400 R-5100 Polyphenylsulfone (PPSU)



PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.29	1.29	D 792
Melt Flow Rate @ 365 °C, / 5 kg	14.00 - 22.00 g/10 min	14.00 - 22.00 g/10 min	D 1238
Molding Shrinkage 1/8 in (3.2 mm) section	0.0060 in/in	0.60 %	D 955
Water Absorption, 24 hrs @ 23°C	0.370 %	0.370 %	D 570

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	13.0 ft-lbs/in	694 J/m	D 256
Tensile Strength	10100 psi	70 MPa	D 638
Tensile Elongation	90.0 %	90.0 %	D 638
Tensile Modulus	0.34 x 10 ⁶ psi	2344 MPa	D 638
Flexural Strength	13200 psi	91 MPa	D 790
Flexural Modulus	0.35 x 10 ⁶ psi	2413 MPa	D 790

ELECTRICAL

Volume Resistivity	> 1E12 ohm.cm	> 1E12 ohm.cm	D 257
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THERMAL

Deflection Temperature @ 264 psi (1820 kPa)	408 °F	209 °C	D 648
Ignition Resistance* Flammability	V-0 @ 1/32 in	V-0 @ 0.8 mm	UL94

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.

GENERAL PROCESSING FOR INJECTION MOLDING

	English	SI Metric
Injection Pressure	10000 - 20000 psi	69 - 138 MPa
Melt Temperature	650 - 730 °F	343 - 388 °C
Mold Temperature	280 - 325 °F	138 - 163 °C
Drying	6 hrs @ 300 °F	6 hrs @ 149 °C
Moisture Content	0.04 %	0.04 %
Dew Point	-25 °F	-32 °C

PROCESSING NOTES

Desiccant Type Dryer Required.

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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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