



**Product Data Sheet &  
General Processing Conditions**

**RTP 1403  
Polyethersulfone (PES)  
Glass Fiber**

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	20 %	20 %	
Specific Gravity	1.51	1.51	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0040 in/in	0.40 %	D 955
Water Absorption, 24 hrs @ 23°C	0.400 %	0.400 %	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	11.0 ft-lbs/in	587 J/m	D 4812
Tensile Strength	18000 psi	124 MPa	D 638
Tensile Elongation	2.9 %	2.9 %	D 638
Tensile Modulus	1.00 x 10 <sup>6</sup> psi	6895 MPa	D 638
Flexural Strength	28000 psi	193 MPa	D 790
Flexural Modulus	0.90 x 10 <sup>6</sup> psi	6206 MPa	D 790
Hardness Rockwell, R	122	122	D 785

**ELECTRICAL**

Dielectric Strength, S/T, in oil	375 VPM	14.8 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.9	3.9	D 150
Dissipation Factor, 1 MHz, Dry	0.0070	0.0070	D 150
Arc Resistance	70 s	70 s	D 495
Volume Resistivity	> 1E12 ohm.cm	> 1E12 ohm.cm	D 257

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	420 °F	216 °C	D 648
@ 66 psi (455 kPa)	430 °F	221 °C	D 648
Ignition Resistance* Flammability**	V-0 @ 1/16 in	V-0 @ 1.5 mm	D 3801
Coefficient of Linear Thermal Expansion Flow Direction	1.6 x 10 <sup>-5</sup> /°F	2.9 x 10 <sup>-5</sup> /°C	E 831
Thermal Conductivity Through-plane	2.10 (BTU.in)/(hr.ft <sup>2</sup> .°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**

	<b>English</b>	<b>SI Metric</b>
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	650 - 710 °F	343 - 377 °C
Mold Temperature	275 - 350 °F	135 - 177 °C
Drying	6 hrs @ 300 °F	6 hrs @ 149 °C

Moisture Content  
Dew Point

0.04 %  
-25 °F

0.04 %  
-32 °C

## PROCESSING NOTES

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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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