



**Product Data Sheet &  
General Processing Conditions**

**RTP 1403 N  
Polyethersulfone (PES)  
Glass Fiber  
High Viscosity**

**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	0.0030 in/in	0.30 %	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	1.4 ft-lbs/in	75 J/m	D 256
unnotched 1/8 in (3.2 mm) section	14.0 ft-lbs/in	747 J/m	D 4812
Tensile Strength	19000 psi	131 MPa	D 638
Tensile Elongation	3.8 %	3.8 %	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
Compressive Strength	20000 psi	138 MPa	D 695
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	1.9 x 10 <sup>-5</sup> /°F	3.4 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	0.04 %	0.04 %
Dew Point	-25 °F	-32 °C

**PROCESSING NOTES**

Desiccant Type Dryer Required.