



**Product Data Sheet &  
General Processing Conditions**

**RTP 1400 N  
Polyethersulfone (PES)  
High Viscosity**

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Specific Gravity	1.37	1.37	D 792
Melt Flow Rate @ 385 °C, / 2.16 kg	30.00 g/10 min	30.00 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	0.540 %	0.540 %	D 570

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.6 ft-lbs/in	85 J/m	D 256
Tensile Strength	12000 psi	83 MPa	D 638
Tensile Elongation	6.5 %	6.5 %	D 638
Tensile Modulus	0.39 x 10 <sup>6</sup> psi	2689 MPa	D 638
Flexural Strength	16100 psi	111 MPa	D 790
Flexural Modulus	0.42 x 10 <sup>6</sup> psi	2896 MPa	D 790
Hardness Rockwell, R	127	127	D 785

**ELECTRICAL**

Dielectric Strength, S/T, in oil	380 VPM	15.0 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.5	3.5	D 150
Dissipation Factor, 1 MHz, Dry	0.0056	0.0056	D 150
Volume Resistivity	> 1E12 ohm.cm	> 1E12 ohm.cm	D 257

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	400 °F	204 °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	2.7 x 10 <sup>-5</sup> /°F	4.9 x 10 <sup>-5</sup> /°C	E 831

**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