



**Product Data Sheet &
General Processing Conditions**

**RTP 1402
Polyethersulfone (PES)
Glass Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
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Primary Additive	15 %	15 %	
Specific Gravity	1.47	1.47	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0030 in/in	0.30 %	D 955

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	11.0 ft-lbs/in	587 J/m	D 4812
Tensile Strength	17500 psi	121 MPa	D 638
Tensile Elongation	3.5 %	3.5 %	D 638
Tensile Modulus	0.85 x 10 ⁶ psi	5861 MPa	D 638
Flexural Strength	25500 psi	176 MPa	D 790
Flexural Modulus	0.70 x 10 ⁶ psi	4826 MPa	D 790
Compressive Strength	18000 psi	124 MPa	D 695
Hardness Rockwell, R	121	121	D 785

ELECTRICAL

Dielectric Strength, S/T, in oil	375 VPM	14.8 kV/mm	D 149
Dielectric Constant, 1 MHz, Dry	3.8	3.8	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)	405 °F	207 °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	2.2 x 10 ⁻⁵ /°F	4.0 x 10 ⁻⁵ /°C	E 831
Thermal Conductivity Through-plane	2.00 (BTU.in)/(hr.ft ² .°F)	0.29 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 - 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