



## Product Data Sheet & General Processing Conditions

### RTP 1399 X 68907 A Polyphenylene Sulfide (PPS) Long Glass Fiber

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

PERMANENCE		STANDARD
Primary Additive	40 %	
Density	1.69 g/cm <sup>3</sup>	ISO 1183
Shrinkage, 4 mm Thickness		
Flow direction	0.10 - 0.20 %	ASTM D 955

#### MECHANICAL

Impact Strength, Izod		
Notched, 4 mm thickness	23 kJ/m <sup>2</sup>	ISO 180/1A
Unnotched, 4 mm thickness	40 kJ/m <sup>2</sup>	ISO 180/1U
Tensile Strength	165 MPa	ISO 527
Tensile Elongation	1.5 %	ISO 527
Tensile Modulus	15500 MPa	ISO 527
Flexural Strength	235 MPa	ISO 178
Flexural Modulus	15000 MPa	ISO 178

#### ELECTRICAL

Surface Resistivity	> 1E13 ohm	IEC 60093
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#### THERMAL

Heat Deflection Temperature		
@ 1.80 MPa	266 °C	ISO 75
Ignition Resistance*		
Flammability**	V-0 @ 1.5 mm	ISO 1210

#### 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

Injection Pressure	70 - 105 MPa
Injection Pressure	680 - 1030 bar
Melt Temperature	305 - 330 °C
Mold Temperature	135 - 175 °C
Drying	6 hrs @ 150 °C
Moisture Content	0.04 %
Dew Point	-25 °C

#### PROCESSING NOTES

Use a reverse barrel profile. To maximize fiber length, the following injection barrel, screw, and tip designs should be followed. L/D ratio 16/1 - 22/1, Compression ratio 2:1, Flight depth 5 mm minimum, in feed section, Screw diameter 16.5 - 20 mm minimum, Compression section length 12 - 13 diameters, Check ring valve assembly - free flow type no restrictions, Nozzle orifice 6 mm

diameter. Feed throat from hopper to machine must have sufficient opening to prevent bridging of long pellet composition.

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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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