



Product Data Sheet & General Processing Conditions

RTP 199 X 70815 Polypropylene (PP) Long Glass Fiber Chemically Coupled Heat Stabilized

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE		STANDARD
Primary Additive	30 %	
Density	1.13 g/cm ³	ISO 1183
Shrinkage, 4 mm Thickness		
Flow direction	0.10 - 0.30 %	ASTM D 955

MECHANICAL

Impact Strength, Izod		
Notched, 4 mm thickness	21 kJ/m ²	ISO 180/1A
Unnotched, 4 mm thickness	60 kJ/m ²	ISO 180/1U
Tensile Strength	110 MPa	ISO 527
Tensile Elongation	2.0 - 3.0 %	ISO 527
Tensile Modulus	7100 MPa	ISO 527
Flexural Strength	170 MPa	ISO 178
Flexural Modulus	6500 MPa	ISO 178

THERMAL

Heat Deflection Temperature		
@ 1.80 MPa	157 °C	ISO 75
Ignition Resistance*		
Flammability**	HB @ 1.5 mm	ISO 1210
Automotive**	≤ 100 mm/min @ 1.6 mm	ISO 3795
Glow Wire Ignitability Temperature**	775 °C @ 0.8 mm	IEC 60695-2-13
Coefficient of Linear Thermal Expansion		
Flow Direction	2.4 x 10 ⁻⁵ /°K	ASTM E 831
Transverse Direction	12.3 x 10 ⁻⁵ /°K	ASTM 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

Injection Pressure	70 - 105 MPa
Injection Pressure	680 - 1030 bar
Melt Temperature	230 - 260 °C
Mold Temperature	30 - 65 °C
Drying	2 hrs @ 80 °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.

16 Feb 2015 MAB

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.

No information supplied by RTP Company constitutes a warranty regarding product performance or use. Any information regarding performance or use is only offered as suggestion for investigation for use, based upon RTP Company or other customer experience. RTP Company makes no warranties, expressed or implied, concerning the suitability or fitness of any of its products for any particular purpose. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use. The disclosure of information herein is not a license to operate under, or a recommendation to infringe any patents.

RTP COMPANY • 580 EAST FRONT STREET • WINONA, MN 55987 • 507-454-6900