



**Product Data Sheet &  
General Processing Conditions**

**RTP 2099 X 121249 C  
Bio-Based Polylactic Acid (PLA)  
Standard Nucleator  
Glass Fiber  
68% Renewable Resource Content**

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

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	30 %	30 %	
Specific Gravity	1.48	1.48	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0020 - 0.0040 in/in	0.20 - 0.40 %	D 955

**MECHANICAL**

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.2 ft-lbs/in	64 J/m	D 256
unnotched 1/8 in (3.2 mm) section	7.0 ft-lbs/in	374 J/m	D 4812
Tensile Strength	17000 psi	117 MPa	D 638
Tensile Elongation	1.5 %	1.5 %	D 638
Tensile Modulus	1.57 x 10 <sup>6</sup> psi	10825 MPa	D 638
Flexural Strength	23000 psi	159 MPa	D 790
Flexural Modulus	1.54 x 10 <sup>6</sup> psi	10618 MPa	D 790

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	300 °F	149 °C	D 648
@ 66 psi (455 kPa)	320 °F	160 °C	D 648
Ignition Resistance* Flammability**	HB @ 1/16 in	HB @ 1.5 mm	D 635

**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	8000 - 15000 psi	55 - 103 MPa
Melt Temperature	340 - 380 °F	171 - 193 °C
Mold Temperature	180 - 220 °F	82 - 104 °C
Drying	4 - 6 hrs @ 130 °F	4 - 6 hrs @ 54 °C
Moisture Content	< 0.02 %	< 0.02 %
Dew Point	-40 °F	-40 °C

**PROCESSING NOTES**

Desiccant Type Dryer Required.

Nucleated for high heat exposure. For detailed processing information regarding this, see the PLA Molding Guide on the RTP Company website. [www.rtpcompany.com/pla](http://www.rtpcompany.com/pla)

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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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