



**Product Data Sheet &
General Processing Conditions**

**RTP 2099 X 121241 B
Bio-Based Polylactic Acid (PLA)
PC-PLA Blend
ESD Protection
Permanently Anti-static
26% Renewable Resource Content**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

PERMANENCE	English	SI Metric	ASTM TEST
Specific Gravity	1.19	1.19	D 792
Molding Shrinkage 1/8 in (3.2 mm) section	0.0060 in/in	0.60 %	D 955

MECHANICAL

Impact Strength, Izod notched 1/8 in (3.2 mm) section	1.0 ft-lbs/in	53 J/m	D 256
unnotched 1/8 in (3.2 mm) section	16.0 ft-lbs/in	854 J/m	D 4812
Tensile Strength	5200 psi	36 MPa	D 638
Tensile Elongation	7.0 %	7.0 %	D 638
Tensile Modulus	0.25 x 10 ⁶ psi	1724 MPa	D 638
Flexural Strength	8000 psi	55 MPa	D 790
Flexural Modulus	0.25 x 10 ⁶ psi	1724 MPa	D 790

ELECTRICAL

Volume Resistivity	1E8 - 1E11 ohm.cm	1E8 - 1E11 ohm.cm	D 257
Surface Resistivity	1E10 - 1E12 ohm/sq	1E10 - 1E12 ohm/sq	D 257
Static Decay MIL-PRF-81705D, 5kV to 50 V, 12% RH	< 2.00 s	< 2.00 s	FTMS101C 4046.1

THERMAL

Deflection Temperature @ 66 psi (455 kPa)	185 °F	85 °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

	English	SI Metric
Injection Pressure	8000 - 15000 psi	55 - 103 MPa
Melt Temperature	430 - 470 °F	221 - 243 °C
Mold Temperature	75 - 160 °F	24 - 71 °C
Drying	4 hrs @ 175 °F	4 hrs @ 79 °C
Moisture Content	0.02 %	0.02 %
Dew Point	-40 °F	-40 °C

PROCESSING NOTES

Desiccant Type Dryer Required.

For detailed processing information, see the PLA Molding Guide on the RTP Company website: 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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