

# VG7231U

## Technical Datasheet

Polylactic acid resin is a 100% biodegradable material, from renewable natural resources, its products can be decomposed by composting.

VG7231U resin made by POLYALLOY INC. (for injection molding process) is a PLA compound for general disposable item. The product made by VG7231U will have heat resistance over 100°C.

Property	Test Method	Unit	Value
<b>MECHANICAL</b>			
Tensile Strength	ASTM D638	kg/cm <sup>2</sup>	700
Elongation (at break)	ASTM D638	%	2
Flexure Modulus	ASTM D790	kg/cm <sup>2</sup>	75000
Flexure Strength	ASTM D790	kg/cm <sup>2</sup>	1100
IZOD Impact / Notched (23°C)	ASTM D256	kg-cm/cm	3.5
IZOD Impact / Un-Notched (23°C)	ASTM D256	kg-cm/cm	25
<b>THERMAL</b>			
Heat Deflection Temperature (4.6Kg/cm <sup>2</sup> )	ASTM D648	°C	150
Heat Deflection Temperature (18.5Kg/cm <sup>2</sup> )	ASTM D648	°C	100
<b>PHYSICAL</b>			
Specific Gravity	ASTM D792	-	1.48
Melt Flow Rate (190°C/2.16Kg)	ASTM D1238	g/10min	10

(1) Values shown are based upon specific condition. Variations within normal tolerances are possible for various colors. Actual properties of individual batches will vary within specification limits.



Reported values are only as guidelines for designers and processors of modified thermoplastics. Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by pellet cut, size, color, molding techniques applied, and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

The values of specification listed were collected and shown to the best of our knowledge. However, we ask for understanding that we can not take over liability for the results in individual cases and for the suitability and completeness of our recommendations, and can not guarantee that no third-party patent rights are restricted. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use.

## Packaging and Drying

Water contain will affect the molding process the mechanical properties of end products. The moisture level of each resin is controlled under 0.1% (1000 ppm) before packaging. Drying of before a process is necessary.

The available packages of resins are shown in the following table. Special package can supplied upon request. Each package will be attached tag which shows the product grade, the lot number, the net weight. The products will be stacked on pallet. Maximum weight of each pallet is 1,000 kg.

	25	500	750	1,000
Paper bag *1				
Aluminum foil	●			
Bulk bag *2				●
Paper box				

(1) Polyethylene laminated for interior layer.

(2) Polypropylene woven bag

Drying of crystalline PLA compounds can be performed in a desiccant hot air dryer, preferably with a dew point of less than -40°C. It is recommended to dry for 4 to 6 hours at 80°C. Insufficient drying will cause die drool, rough surface appearance, reduced output, and low mechanical properties. Streaks can be caused by overheating of the material or long time remaining in the barrel.

## Storage

Please store resins indoor with room temperature. Avoid to be in touched with water, oil or solvent. Some high purity grades of must be stored under low dusty environment. The dust of package may cause contamination when it be opened.

Although resins are thermoplastic polymer, long term storage is not recommended. The normal storage warranty will be 2 years.

## Product Safety

For the safety properties of the material, we refer to our SDS which can be requested from our sales offices.

During practical operation we advise to wear personal safety protections for hand, eye, and body. Caution! Handling or processing the resins may generate a dust which can cause irritation of the eye, skin, nose and throat.

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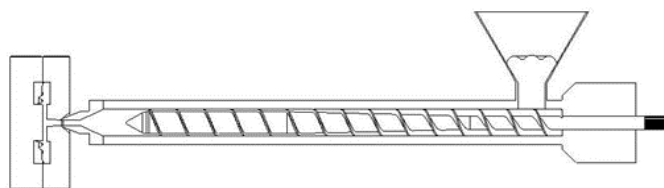
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## Regrind

Resins are thermoplastic materials. Sprues, runners or side sheets are possible to be reprocessed. The regrinds must be clean, low thermally degraded and well dried. The acceptable level of regrind depends on the application. Be aware that regrind of purify grades is not recommended for original application.

Mold	Nozzle	Front	Center	Rear	Temp °C
					200
					190
					180
					170
					160
					90
					70

## Molding Condition



The recommendations and data given are based on our experience to date, however, no liability can be assumed in connection with their usage and processing.

## For Additional Information

Customer service

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