3DUNIVERSE

# PLA 3D Filament Data Sheet

## Polylactide (PLA)

Polylactide, also known as Polylactic Acid, is a biodegrade thermoplastic. Synthesized from organic sugars, PLA has become the most common material for 3D filaments due to its eco-friendliness and ease of use. PLA maintains several desirable properties for 3D printing such as a low melting temperature and glass transition temperature. As a result, PLA offers a high level of detail and exceptional print quality

| Mechanical Properties | | Test Method |
|---|---|---|
| Tensile Strength @ Break, PSI | 7700 | ASTM D638 |
| Yield Strength, PSI | 8700 | ASTM D638 |
| Tensile Elongation, % | 6.0 | ASTM D638 |
| Notched Izon Impact, ft-lb/in | 0.3 | ASTM D256 |
| **Size Specifications** | | |
| Nominal Outer Diameter, mm | 1.75/2.88 | - |
| OD Tolerance, mm | ±0.08 | - |
| Ovality, mm | < 0.05 | - |

## Applications

- General purpose 3D printing
- Fine detail prints
- Applications where strength is not critical

## Recommended Printer Settings

- Extruder Temperature: 190-230 °C
- Printing Speed: 50-90+ mm/s
- Bed Temperature: 60-70 °C
- Bed Adhesion: Blue Painters Tape

## Additional Information

- Biodegradable
- Standard Sizes Available: 1.75/2.88mm
- Custom packaging methods available upon request
- Spool Weight: 1kg., 1lb., 5lb., and 10lb
- All filaments are sealed with desiccants

## Regulatory Compliance

- RoHS
- REACH
- Toy Safe

## Disclaimer:

The above information is provided in good faith. It is solely the customer's responsibility to determine if the product and information in this document are appropriate for the customer's end use. Customers are always advised to consult their 3D printer manufacturer before using Toner Plastic's filaments.