



# TECHNICAL DATA SHEET

## INFILL PLA FILAMENT

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PLA filament is known for its ability to create 3D printed parts with fine details and a textured, matte surface finish, making it a popular choice for aesthetically pleasing prints.

### Key Features

- Less warping
- Easy to use
- Biodegradable and nature-friendly
- Better layer adhesion
- No heated bed required
- Less nozzle clogging

### Applications

- Prototyping & design
- Architecture models
- Orthopaedic Models
- Education & visualization
- Models required to be biodegradable
- Art



### Specifications

Material Name	PLA
Chemical Name	Polylactic Acid
Diameter	1.75 ± 0.03 mm
Net Filament Weight	1 kg

### Recommended Print Settings

Drying Settings	40 °C, 4h
Nozzle Size	0.2, 0.4, 0.6 mm
Nozzle Temperature & Printing Speed	180 - 200 °C at 50 - 100 mm/s 200 - 220 °C at 100 - 300 mm/s
Bed Temperature	50 - 60 °C
Cooling Fan Speed	100%
Bed Type	Textured PEI Sheet, Cool Plate

### Physical Properties

Property	Method	Metric
Density	ISO1183	1.24 g/cm <sup>3</sup>
Melting Temperature, 10 °C/min	ISO11357-3	166 °C
Glass Transition Temperature, 10 °C/min	ISO11357-3	65.3 °C
Heat Deflection Temperature at 0.45 MPa	ISO75	55 °C
Shore D Hardness	ISO868	83D



## Mechanical Properties

Property	Method	Metric
Tensile Strength	ASTM D638 / ISO527	55.04 MPa
Elongation at Break	ASTM D638 / ISO527	4.01%
Young's Modulus	ASTM D638 / ISO527	1417.79 MPa
Flexural Strength	ASTM D792 / ISO178	92.25 MPa
Flexural Modulus	ASTM D792 / ISO178	3463.62 MPa
Izod Impact, Notched (X-Y, 23 °C)	ASTM D790 / ISO180	19.20 KJ/mm <sup>2</sup>



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