

# Jabil PLA 3100 Filament

## Technical Data Sheet

### Product Description

PLA (Polylactic Acid) is a biodegradable, sustainable and food safe polymer made from organic sources. PLA is the most common used filament in FFF (fused filament fabrication) printers for its ease of use and range of applications, especially those not mechanically or thermally demanding. This filament is available in an array of colors and prints on any open platform including Ultimaker S5, Ultimaker 3, Raise3D, Makerbot Method and Taz platforms.

Best application for the Jabil PLA 3100 Filament includes basic jigs, fixtures and tooling with low thermal requirements.

### Advantages

With a diameter tolerance of  $\pm 0.03$  mm, Jabil PLA 3100 Filament exceeds the industry standard, resulting in more consistent, better quality prints.

### Storage and Use

The Jabil PLA 3100 Filament is slightly hygroscopic and is able to absorb and retain small amounts of moisture from the atmosphere improving visual quality and mechanical properties. For the best results, print and store filament in a dry environment. If necessary, dry filament in an oven at up to 75 °C (165 °F) for 3 to 4 hours.



For the latest print profiles, search for Jabil Engineered Materials in the [Cura Marketplace](#).

For complete copies of the Print Settings, visit our [PLA 3100 webpage](#).

### Properties

Mechanical Properties <sup>1</sup>			
	Test Condition	Typical Value	Method
Tensile Modulus (MPa)	XY coupons, Ambient	3240	ATSM D638, Type I
Tensile Elongation at Break (%)		6	
Ultimate Tensile Strength (MPa)		47	
Flexural Modulus (MPa)	XY coupons, Ambient	2850	ASTM D790
Flexural Strength (MPa)		83	
Flexural Strain (%)		>5	
Izod Impact, Notched (J/m)	XY coupons, Ambient	31	ASTM D256
Izod Impact, Un-notched (J/m)	XY coupons, Ambient	207	

1. Testing conducted on bars printed on an Ultimaker S5 using the Cura marketplace profile. Typical values are for reference only.

### Thermal Properties

	Test Condition	Typical Value	Method
Heat Deflection Temperature	0.455 Mpa	55	DMA
Glass Transition Temperature (°C)	20°C/min ramp	57	DSC
Melt Temperature (°C)	20°C/min ramp	155	DMA

### Other Physical Properties

	Test Condition	Typical Value	Method
Density (g/cm <sup>3</sup> )	Ambient	1.24	ASTM D792

### Dimensional Properties

	Test Condition	Typical Value	Method
Diameter: Mean, Indiv. Axis (mm)	In-line, 100% inspection	1.75 ± 0.03 2.85 ± 0.03	ASTM D792

**Disclaimer:** The information in this technical data sheet, including material properties, are obtained from testing representative samples under carefully controlled conditions and are provided for reference only. Material properties may be impacted by storage, handling, processing equipment/parameters, and product design, among other factors. The information is not a substitute for user testing to determine fitness for any specific use and the user is responsible for ensuring safe and lawful use of the product.

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