



# PLA

## Technical Data Sheet

Description	PLA gives a high quality 3D printing experience. That's because it made from organic and renewable sources that provide its reliability and robustness.
Key Features	High tensile strength and surface quality, capable of high print speeds, capability of printing high resolution parts, ease to use, smooth and shiny appearance of print
Applications	Household items, educational projects, show pieces, architectural models
Not suitable for	Food contact, in-vivo applications, long term outdoor usage or applications where printed part is exposed to temperatures exceeding 50 °C

### 1. Identification

Trade name	PLA
Chemical name	Poly(lactic Acid)
Chemical family	Polymer
Use	Monofilament for 3D printing
Company	Tesseract, Shop no.2, 196A Tara House, Dr. Viegas Street, Marine Lines, Mumbai - 400002
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### 2. Filament Processing Parameters

Nozzle Temperature	210 ± 10°C
Bed Temperature	~ 60 °C



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### 3. Filament Specifications

Diameter	1.75 / 2.85 $\pm$ 0.03 mm
Max. roundness deviation	0.05
Net filament weight	1000 g
Filament length	~330 / 110 m

### 4. Material Properties - Tensile Test

Test Method: ASTM D 638

Test Parameters	Results (PLA50)	Results (PLA 100)
C/S size (mm)	13 x 3.12	12.96 x 3.14
C/S area (mm <sup>2</sup> )	40.56	40.69
Ultimate load (N)	1495	2519.00
Ultimate tensile strength (N/mm <sup>2</sup> )	36.86	61.90
Elongation at ultimate load (%)	3.00	3.20
Breaking strength (N/mm <sup>2</sup> )	36.46	55.36
Elongation at break (%)	3.80	8.40
Tensile Modulus (N/mm <sup>2</sup> )	1612.43	2501.57

### 5. Other Information

-The information in this Material Safety Data Sheet (MSDS) is based on current knowledge and experience. No liability can be assumed for the accuracy and completeness of this information.

-The information in this MSDS applies for this specific material only. It therefore does not apply for its usage in combination with other materials or ways of processing.

-Users should consider this information only as additional to other data gathered. Independent determination of suitability and completeness of information from all available sources is essential to ensure proper and safe use and disposal of these materials.

-This information is furnished without warranty, express, or implied. This information is believed to be accurate to the best of knowledge of Rever Industries.

-This information should help to make an independent determination of the methods to ensure proper and safe use and disposal of the filament