

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

2. Filament Processing Parameters

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

3. Filament Specifications

Diameter	1.75 / 2.85 ± 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 ²)	40.56	40.69
Ultimate load (N)	1495	2519.00
Ultimate tensile strength (N/mm ²)	36.86	61.90
Elongation at ultimate load (%)	3.00	3.20
Breaking strength (N/mm ²)	36.46	55.36
Elongation at break (%)	3.80	8.40
Tensile Modulus (N/mm ²)	1612.43	2501.57