



Landu Filament

Technical Data Sheet V1.0

PLA

- **Basic Info**

Landu PLA uses the finest raw materials, providing excellent quality and reliability. Covering the most popular 3D printing materials, can meet your daily design and prototyping needs.

- **Specifications**

Subjects	Data
Diameter	1.75 mm
Net Filament Weight	1 kg
Filament Length	330m
Tolerance	±0.03mm

- **Recommended Printing Settings**

Subjects	Data
Nozzle temperature	190 – 220 (°C)
Build surface material	BuildTak® , Glass, Blue Tape
Build surface treatment	Glue, Magigoo
Build plate temperature	45- 60 (°C)
Cooling fan	On
Printing speed	50-100 (mm/s)
Raft separation distance	0.2 (mm)
Retraction distance	1 (mm)
Retraction speed	20 mm/s
Environmental temperature	Room temperature
Threshold Overhang Angle	60 (°)

• Properties

Landu has tested the differing aspects in the performance of PLA material, including physical and chemical properties. Typical values are listed as followed:

Physical Properties		
Subjects	Testing Methods	Data
Density	ISO 1183,GB/T1033	1.17 g/cm ³ at 23°C
Melt Index	210 °C, 2.16 kg	7-11g/10 min
Light transmission	N/A	N / A
Flame retardancy	N/A	N / A

Mechanical Properties		
Subjects	Testing Methods	Data
Young's modulus (X-Y)	ISO 527, GB/T 1040	3426.9 ± 64.8 MPa
Young's modulus (Z)		3064.9 ± 83.4 MPa
Tensile strength (X-Y)	ISO 527, GB/T 1040	52.3 ± 0.3 MPa
Tensile strength (Z)		40.5 ± 0.5 MPa
Elongation at break (X-Y)	ISO 527, GB/T 1040	6.3 ± 0.6 %
Elongation at break (Z)		1.8 ± 0.1 MPa
Bending modulus (X-Y)	ISO 178, GB/T 9341	3230.9 ± 55.3 MPa
Bending modulus (Z)		N/A
Bending strength (X-Y)	ISO 178, GB/T 9341	86.9 ± 1.2 MPa
Bending strength (Z)		N/A
Charpy impact strength (X-Y)	ISO 179, GB/T 1043	3.3 ±0.2 kJ/m ²

• Specimen Test

Specimen Printing Conditions	
Subjects	Data
Nozzle Temperature	205°C
Bed Temperature	40°C
Infill Density	100%

• Disclaimer

The performance values are tested by standard samples at Landu, and the values are for design reference and comparison only. Actual 3D printing model performance is related to many other factors, including printers, printing conditions, printing models, printing parameters, etc.

In the process of using Landu 3D printing filaments, users are responsible for the legality, safety, and performance indicators of printing. Landu is not responsible for the use of materials and scenarios and is not responsible for any damage that occurs in the process of using our filaments.