Technical Data Sheet

Lignum PLA

Essential series

Lignum is a 100% industrial compostable PLA based material with 25% recycled pine wood fibers. This material is easy to print and gives off aromas of wood during printing. The final part feels and smells like wood and can be sanded for a smooth finish. Lignum PLA is available in pine wood colour. Filament should be stored into their original sealed package at room temperature (15-30°C) and dry environment. Following this storage recommendation, the filament will have a minimum shelf life of 12 months.

Please note that there may be colour variation between batches of recycled pine wood fibers as it is a natural product

General

Availability

- North America
- Latin America

Applications

- Functional Parts
- Home Décor
- Prototyping
- Architectural Models

Mechanical Properties	Value	Test Method
Tensile Strength	17 MPa	ASTM D638
Elongation at Break	5%	ASTM D638
Flexural Strength	33 MPa	ASTM D790
Flexural Modulus	1350MPa	ASTM D790

Samples printed with the following parameters: 100% infill; rectilinear; 2 shells. Conditioned under ambient conditions for 24 hours prior to testing.

Thermal Properties	Value	Test Method
Glass Transition Temperature	55°C	ASTM D3418
Melt Flow Rate (210°C)	1.4g/10min	ASTM 1238
Melt Temperature	155-165°C	ASTM D3418
Specify Gravity	0.98	ASTM D792

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Parameter	Recommended Setting
Nozzle Temperature	190-220˚C
Bed Temperature	25-60˚C
Bed Adhesive	None
Print Speed	45-60mm/s
Cooling	0-100%
Layer Height	≥0.2mm
Nozzle Diameter	≥0.6mm

To ensure optimal material properties the material should always be kept dry. Drying recommendations: 60°C /140°F in a hot air dryer or vacuum oven for 4 to 16 hours.

Disclaimer

The data presented in this document are based on our current knowledge and experience and is intended solely for information and comparison purposes only. Product specifications are subject to change without notice. They should not be used for project specifications or its quality evaluation. The material's actual properties depend on the printing process conditions, the design structure, test conditions, etc.

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