

Technical Data Sheet

Premium 3D Printer Filament

Description

MG Chemicals Wood filament is made with a blend of polylactic acid (PLA) and wood particles. It may be sanded and painted, and has a sweet wood odor.

MG Chemicals premium 3D printing filaments are manufactured under strict quality control to ensure consistency. Our spools have a large hub to ensure uniform winding, and cut-outs on the sides so the user can easily see how much filament is left.

Features and Benefits

- Diameter: 1.75 or 2.85 mm; Weight: 0.5 or 1 kg/spool
- Dimensional accuracy: ±0.03 mm
- Vacuum-sealed with desiccant in resealable bags
- Recommended print temperature: 200 to 220 °C (392 to 428 °F)
- Recommended bed temperature: 22 to 50 °C (72 to 122 °F)
- Spool diameter: 7¾"; Spool width: 2½"; Hub diameter: 3½"; Hub hole diameter: 2½"

Usage Parameters

Properties	Value
Storage temperature	18–27 °C [65–80 °F] ^{a)}
Shelf life, unopened package	1 y from date of purchase
Shelf life, opened package	Variable depending on storage conditions

a) Keep sealed in an air tight container, away from humidity.

Temperature Ranges

Properties	Value
Print temperature	200-220 °C (392-428 °F)
Bed temperature	22–50 °C (72–122 °F)

NOTE: Values may vary depending on the printer type, environmental conditions, and color of filament. Adjust print temperatures by 5 °C until ideal flow and bed adhesion is obtained.



Properties

Physical Properties	Method	Value
Density	ASTM D 1505	1.25 g/cm ³
Tensile strength	ASTM D 882	37 N/mm² [5 300 lb/in²]
Young's modulus	ASTM D 882	3 100 N/mm² [444 000 lb/in²]
% Elongation	ASTM D 882	6%
Elmendorf tear	ASTM D 1922	69 N/mm² [9 900 lb/in²]
Spencer impact	_	2.9 J/m ²
Optical transmittance	ASTM D 1003	1.2%
Thermal Properties	Method	Value
Melting point	ASTM D 3418	130-210 °C [266-410 °F]

Storage

Store between 18 to 27 °C [65 to 80 °F] in a dry area, away from sunlight. Keep sealed in an air tight container, away from humidity.

Health, Safety, and Environmental Awareness

Please see the WOOD Safety Data Sheet (SDS) for further details on transportation, storage, handling, safety guidelines, and regulatory compliance.

Date: 09 October 2018 / Ver. 2.00



Packaging and Supporting Products

Available Colors



Wood WOOD17W1 WOOD30W1 WOOD17W5



Dimensions for 0.5 kg Spool

Filament Diameter	Filament Length
1.75 mm	166 m

Dimensions for 1.0 kg Spool

Filament Diameter	Filament Length
1.75 mm	332 m
2.85 mm	125 m

NOTE: Dimensions listed above are approximations.

Net Weight	Net Volume	Packaging Weight
0.5 kg [1.1 lb]	400 mL [13.5 fl oz]	700 g [1.54 lb]
1.0 kg [2.2 lb]	800 mL [1.69 pt]	1.35 kg [2.98 lb]

Supporting Products

- 3D Printing Masking Tape: Cat. No. MAS100-15
- 3D Printing Polyimide Tape: Cat. No. POL100, POL200
- Acetone: Cat. No. 434-1L, 434-4L
- d-Limonene Industrial Strength: Cat. No. 433C-1L, 433C-4L



Technical Support

Please contact us regarding any questions, suggestions for improvements, or problems with this product. Application notes, instructions and FAQs are located at www.mgchemicals.com.

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Disclaimer

This information is believed to be accurate. It is intended for professional end users who have the skills required to evaluate and use the data properly. M.G. Chemicals Ltd. does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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