Premium 3D Printer Filament

Description

PLA is the most popular resin for 3D printing because it is easy to use and has almost no odor. It adheres well to masking tape without requiring a heated printing bed or noxious solvents. It is an optimal choice for homes, schools and laboratories, and has many commercial applications.

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: 2⅛"*

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	1.24 g/cm^3
Tensile strength	ASTM D 882, Machine Direction	100 N/mm^2 [15 000 lb/in^2]
% Elongation	ASTM D 882, Machine Direction	180%
Young's modulus	ASTM D 882, Machine Direction	3 500 N/mm^2 [500 000 lb/in^2]
Elmendorf tear	ASTM D 1922, Machine Direction	670 g/mm [17 g/mil]
Optical, haze	ASTM D 1003	2.1%
Optical, gloss 20°	ASTM D 1003	90%
Thermal Properties	**Method**	**Value**
Melting point	ASTM D 3418	115 to 170 °C [239 to 338 °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.

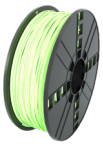
Health, Safety, and Environmental Awareness

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

Packaging and Supporting Products

Available Colors

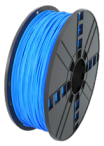
Fluorescent Red
PLA17FLRE1



Fluorescent Yellow
PLA17FLYE1

Thermochromic Red
PLA17THRE1

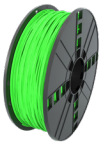
Black
PLA17BK1
PLA30BK1



Blue
PLA17BL1
PLA30BL1

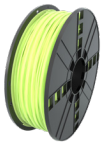
Brown
PLA17BR1
PLA30BR1

Gold
PLA17GO1
PLA30GO1

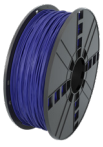


Green
PLA17GR1
PLA30GR1

Grey
PLA17GY1
PLA30GY1



Lime Green
PLA17LI1
PLA30LI1



Navy
PLA17NA1
PLA30NA1

Orange
PLA17OR1
PLA30OR1

Pink
PLA17PI1
PLA30PI1

Purple
PLA17PU1
PLA30PU1

Red
PLA17RE1
PLA30RE1

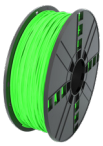
Silver
PLA17SI1
PLA30SI1

Light Skin
PLA17SK1
PLA30SK1

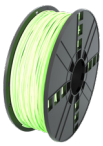
Translucent
PLA17TL1
PLA30TL1

White
PLA17WH1
PLA30WH1

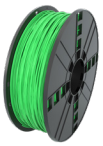
Yellow
PLA17YE1
PLA30YE1



Glow in the Dark Green
PLA17GD1
PLA17GD5
PLA30GD1



Super Glow Natural
PLA17SGN1
PLA30SGN1



Fluorescent Green
PLA17FLGR1

Copper
PLA17CP1

Dimensions for 0.5 kg Spool

Filament Diameter	Filament Length
1.75 mm	167 m

Dimensions for 1.0 kg Spool

Filament Diameter	Filament Length
1.75 mm	335 m
2.85 mm	126 m

NOTE: Dimensions listed above are approximations.

Net Weight	Net Volume	Packaging Weight
1.0 kg [2.2 lb]	806 mL [1.70 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

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