



FILATECH
Making It Better

PLA+ Filament

PLA - POLYLACTIC ACID

PLA (Polylactic Acid) is one of the two most commonly used desktop 3D printing filaments (with the other being ABS filament). It is the "default" recommended material for many desktop 3D printers, and with good reason - PLA is useful in a broad range of printing applications, has the virtue of being both odorless and low-warp, and does not require a heated bed.

PLA filament is also one of the eco-friendlier 3D printer materials available; it is made from annually renewable resources (corn-starch) and requires less energy to process compared to traditional (petroleum-based) plastics. Outside of 3D printing, PLA plastic is often used in food containers, such as candy wrappers, and biodegradable medical implants, such as sutures. Our PLA filaments for 3D Printing are available in a wide range of colors in both 1.75mm and 2.85mm.

Filatech PLA+ is a premium quality PLA filament with better print qualities, the latest range of PLA+ filaments have been developed by our expert engineers utilizing the latest technology and high-quality prime virgin raw material.

OPTIONS:

Size:	1.75	mm +/- 0.03 mm
	2.85	mm +/- 0.03 mm
Color:	Full Color Range (Special Colors By Order)	
Packaging:	0.5	Kg Spools
	1.0	Kg Spools
	6.0	Kg Spools

FEATURES:

- Lower melting point for easier printing
- Free from harmful or hazardous materials
- Lower shrinkage rate
- High rigidity with minimal flex
- Produces higher quality prints
- Proper for printing large parts with almost no warping
- Can be printed without heated bed.
- No chemical odors produced during printing

SPECIFICATIONS:

Filament Material:	PLA+	
Specific Gravity:	1.24	gr/cm ³
Size:	1.75	mm +/- 0.03 mm
	2.85	mm +/- 0.03 mm
Printing Information:	Extruder: 200 – 220 °C	
	Bed:	40 – 60 °C (Only for big parts)
Working Temperature:	Starts losing mechanical strength at 60 °C	

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ENGINEERING PROPERTIES:

Physical properties	Method	Typical value
Density	Literature value	1.24 g/cm ³
Melt flow index	ISO 1133-A (210°C/2.16kg)	8 g/10 min
Melt flow index	ISO 1133-A (190°C/2.16kg)	3 g/10 min
Stereochemical purity	Total Corbion PLA method	96% (L-isomer)
Appearance	Visual	Crystalline white pellets
Residual monomer	Total Corbion PLA method	≤ 0.3%
Water / moisture	Coulometric Karl-Fischer	≤ 400 ppm
Melting temperature	DSC	155°C
Glass transition temperature	DSC	55-60°C
Mechanical properties	Method	Typical value
Tensile modulus	ISO 527-1	3500 MPa
Tensile strength	ISO 527-1	45 MPa
Elongation at break	ISO 527-1	≤ 5%
Charpy notched impact, 23°C	ISO 179-1eA	≤ 5 kJ/m ²

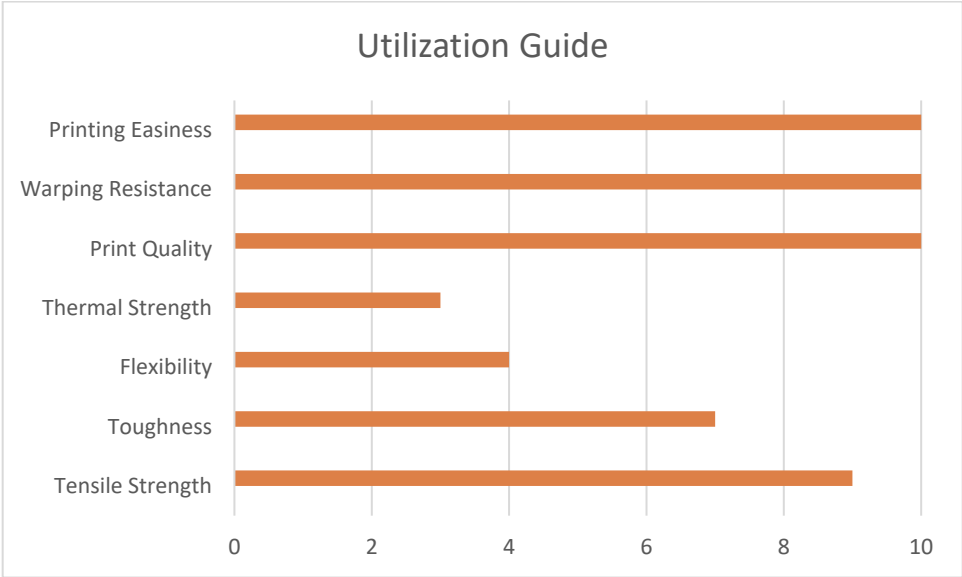
¹ Typical properties, not to be interpreted as specifications

UTILIZATION GUIDE:

(Comparative, Out of 10)

Tensile Strength	9
Toughness	7
Flexibility	4
Thermal Strength	3
Print Quality	10
Warping Resistance	10
Printing Easiness	10

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CERTIFICATES:

Management: BS EN ISO 9001:2015
Quality: CE (CE-2924)
Environment: RoHS (UQ-5724)