

Polylactic Acid, or better known as PLA, is a thermoplastic made from starch compound. Compared to other filaments such as ABS, apart from being easier to use in 3D printing, PLA is the most environmentally friendly one, being biodegradable and made from natural and renewable sources.



Storage and Handling

It is recommended to store PLA filament in a dry area where they cannot be exposed to any form of moisture as exposure may affect the printing process and/or reduce the quality of the finished product. Exposure to environment should be minimal, thus, it is strongly suggested that unused filament should be stored in a sealed bag similar to zip lock bags upon completion of a print with silica gel inserted into the bag. The sealed bag should be stored away from direct sunlight.

Polymer Name	PLA (Polylactic Acid)
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Filament specifications

Filament diameter	1.75mm	3mm
Physical diameter	1.75 mm	3.00 mm
Tolerance	0.05 mm	0.05 mm

Material specifications

Properties	Value	Unit	Test Method
Physical			
Density	1.24	g/cm ³	ASTM D1505
Melt mass flow rate (MFR) (300 °C/1.2 Kg)	2.0 to 10.0	g/10min	ASTM D1238
Secant Modulus	3450	MPa	ASTM D882
Mechanical			
Tensile strength yield	103	MPa	ASTM D882
Tensile elongation break	180%		ASTM D882
Thermal			
Peak Crystallization Temperature	155 to 170	°C	ASTM D3418
Others			
Printing Temperature	170 to 210	°C	

Disclaimer

The data presented in this data sheet is accurate as per our knowledge during time of print.

Qwikfab does not warrant or claim that the data can be used as a reference or a quality assurance to the parts produced by the material. The data in this sheet should be only used as a guideline and not as confirmation of specified use or purpose. The specifications in this data sheet may vary in performance depending on production batch and colour.

The warranty, claims or/and quality of parts produced by the material would be the sole responsibility of the user.

The user shall ensure the use of proper safety measures like but not limited to air ventilation and safety gear.

The user indemnifies Qwikfab of all damages in the event of injury or damages caused in the use of the material.