

PLA/rPLA

PLA - short for polylactic acid - is a thermoplastic derived from renewable starches such as corn and sugarcane. PLA is biodegradable and produces few greenhouse gas emissions during its manufacture. PLA does not warp during print – ideal for 3D printers without a heated bed.

Dimensions

Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

Physical properties

Description	Testmethod	Typical value
Specific gravity	ASTM D1505	1,24 g/cc
MFI	-	6,0 g/10 min
Tensile strength	ASTM D882	110 MPa (MD) 145 MPa (TD)
Elongation at break	ASTM D882	160% (MD) 100% (TD)
Tensile modulus	ASTM D882	3310 MPa (MD) 3860 Mpa (TD)
Impact Strength	-	7,5 KJ/m ²

Thermal properties

Description	Testmethod	Typical value
printing temp.	-	180-210°C
melting temp.	-	210°C ± 10°C
melting point	ASTM D3418	145-160°C
vicat softening temp.	ISO 306	± 60°C

Features:

- Tougher and less brittle compared to regular PLA
- Easy to print at low temperature
- Low warping
- Biodegradable
- Limited smell

Additional info:

Due to its low tendency to warp PLA can also be printed without a heated bed. If you have a heated bed the recommended temperature is ± 35-60°C.

PLA can be used on all common desktop FDM or FFF technology 3D printers.

Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly..