

Protopasta

Technical Data Sheet Rev 1.

Protopasta PLA

Protopasta PLA offers ease of printing with exceptional quality, compatibility, reliability, durability, performance, and finish. Protopasta's PLA is our own unique formulation based on extensive in-house testing and our industry-leading experience. PLA and HTPLA as printed, though both adequate performers in an office environment, have poor temperature stability, losing significant stiffness at temperatures not much above 50C.

Material Properties

Properties	Value/Description
Base material	PLA
Characteristics	low odor, non-toxic, renewably-sourced
Molecular structure	Amorphous
Additives	Minimal color added
Max particle size	N/A
Density	approx. 1.2 g/cc
Length	Approx. 346 m/kg (1.75 mm) & 130 m/kg (2.85 mm)
Min bend diameter	15 mm (1.75 mm) & 25 mm (2.85 mm)
Glass transition (Tg) onset	approx. 60 deg C (140 deg F)
Melt point (Tm) onset	approx. 155 deg C (310 deg F)
Max use	Tg

Use limit is geometry, load & condition dependent

Print Settings

(Based on Ultimaker s5 .15mm Profile)

Setting	Value
Nozzle Temperature [°C]	205
Heated Bed Temperature [°C]	60
Print Speed [mm/s]	25-45
Flow Rate/Extrusion Multiplier [%]	100
Extrusion Width [mm]	.45 (.05mm larger than nozzle size)
Volume Flow Rate [mm ³ /s]	2-3

Results may vary based on print settings as well as print quality

For a more about Protopasta PLA, please visit protopasta.com