FILACORP®

RECYCLE, RESHAPE, REPRINT

Technical Data Sheet

rPLA EcoBlend Collection

100% Recycled, Sustainable Filament

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Technical Data Sheet

rPLA EcoBlend Collection

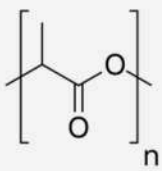
Name	Recycled PLA EcoBlend
Applications	Recycled Polylactic Acid (PLA) Filament Prototyping, Large scale printing, Educational models,
Description	Functional parts and more Transitional printing filament made from our PLA Collection filaments
Available Colours	Each EcoBlend batch has a **unique colour** due to it being a transitional run between one colour and another

Printed Sample using EcoBlend

Physical Specifications

Diameter	1.75 mm (Tolerance: ± 0.05mm)
Density	1.24 g/cm3
Net Filament Weight	1 kg (Tolerance: ± 50g)
Filament Length	~ 360m

Composition/Information on Ingredients

Material	Recycled Polylactic Acid (PLA) Filament
Composition	100% Recycled
Compound Structure	

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Thermal Properties

Glass Transition Temperature	55 - 60°C	
Melting Point	210°C ± 8°C	(ISO 1183)
Heat Deflection Temperature (0.45MPa)	55°C	(ISO 75)
MFR (Melt Flow Rate)	8 - 10 g/10min	(ISO 1133)
Melt Volume-Flow Rate	7 - 9 cm3/10min	(ISO 1133)

Mechanical Properties

Tensile Strength	55 MPA @23°C	(ASTM D638 / ISO 527)
Tensile Elongation	10% @23°C	(ASTM D638 / ISO 527)
Flexural Strength	58 MPA @23°C	(ASTM D790 / ISO 178)
Flexural Modulus	4800 MPA @23°C	(ASTM D790 / ISO 178)
Izod (Impact Strength)	43 J/M @23°C	(ASTM D256 / ISO R180)
Vicat Softening Temperature	58°C @80°C for 2hrs	(ASTM D1525/ ISO 306)

Further Information

Filacorp rPLA Satin exhibits the following properties:

- Printable
- Sealable
- High strength & stiffness
- Can be Coloured with Primer
- High, but controllable water vapor transmission rate
- Good thermo stability up to 210°C in processing

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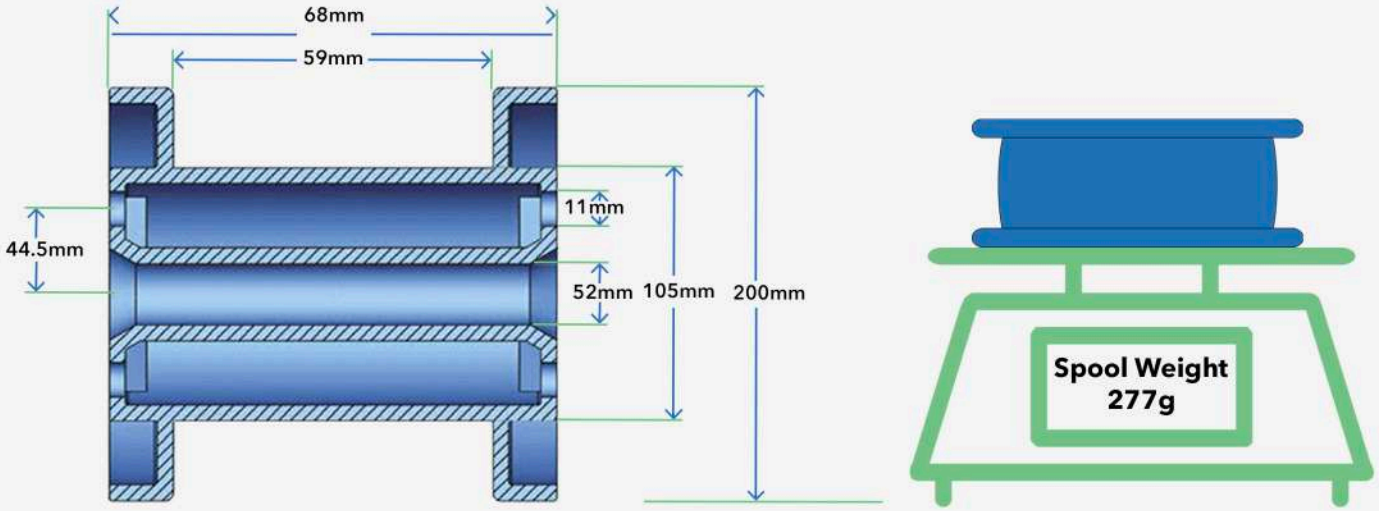
Recommended Printing Settings

Nozzle Temperature	220°C ± 10°C
Build Plate Type	Smooth, PEI, Glass
Build Plate Temperature	55°C ± 5°C
Build Plate Adhesion	Glue, Magigoo, Blue Tape
Cooling Fan	100%
Print Speed	50 - 300 mm/s (When printing at higher speeds it is crucial to use higher printing temperatures)
Retraction Distance	0.5 - 2 mm
Retraction Speed	20 - 40 mm/s
Drying Conditions	60°C for 6 - 12 hours

Spool Specifications & Compatibility

+ Compatible with the Bambu Lab AMS & AMS Lite
+ Compatible with Anycubic Ace Pro
+ Compatible with Creality CFS
+ Compatible with All 3D Printer Spool Holders *

* Spools tested on: Prusa MK3S, MK4, Mini+, XL; Creality Ender 3, Ender 3 S1 Pro, Ender 5, K1C; Anycubic Kobra 3; Artillery Sidewinder X2, X3 Pro, X4 Pro; Bambu Lab X1C, P1S, P1P, A1, A1 Mini; Elegoo Neptune 3 Pro, Neptune 4 Max.



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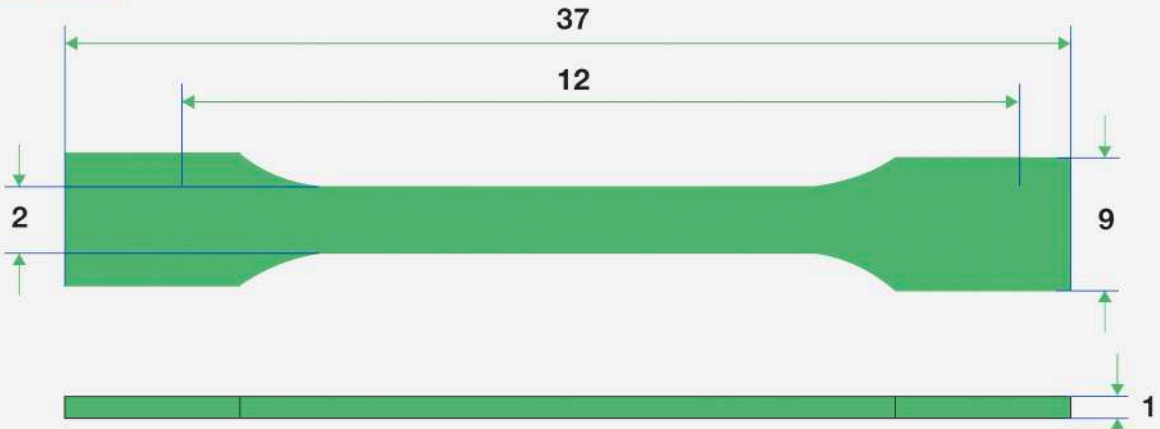
Sample Preparation & Conditions

ISO 527-2 Model 5B



All Specimens were conditioned at room temperature (24°C) for at least 24 hours prior to testing

Nozzle Temperature	220°C
Build Plate Type	Textured PEI Sheet
Build Plate Temperature	60°C
Build Plate Adhesion	Non Added
Cooling Fan	100%
Print Speed	60 mm/s
Shells	2
Top & Bottom Layers	4
Infill	100% (Rectalinear)
Printer Model	Bambu Lab P1S (AMS Combo)

Disclaimer

The data provided in this document by Filacorp serves solely as a point of reference and comparison. It is not intended for design specifications or quality control purposes. Actual values may vary significantly based on printing conditions. The performance of printed parts depends on a variety of factors including material properties, design intricacies, environmental conditions, and printing settings.

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