

SUNLU 3D Printer Filament PLA Filament 1.75mm

SUNLU PLA 3D Printer Filament User Manual

Model: 3D Printer Filament PLA Filament 1.75mm

INTRODUCTION

This manual provides essential information for the proper use and maintenance of SUNLU PLA 3D Printer Filament. PLA (Polylactic Acid) is a widely used thermoplastic material known for its ease of use, reliability, and versatility in FDM (Fused Deposition Modeling) 3D printing. This filament is designed to offer excellent layer adhesion, minimal warping, and consistent diameter for high-quality prints.

SUNLU PLA filament is suitable for a broad range of FDM 3D printers due to its precise dimensional accuracy of $\pm 0.02\text{mm}$ and standard 1.75mm diameter. The filament is neatly wound to prevent tangles and jams, ensuring a smoother and more efficient printing experience.

PRODUCT FEATURES

- **High Compatibility:** Designed for almost all 1.75mm FDM 3D printers.
- **Dimensional Accuracy:** $\pm 0.02\text{mm}$ for consistent extrusion and print quality.
- **Neatly Wound Spool:** Reduces tangles and jams, ensuring smooth feeding.
- **Excellent Layer Adhesion:** Promotes strong and durable printed objects.
- **Minimal Warping & Stringing:** Contributes to cleaner and more precise prints.
- **Eco-Friendly Material:** Made from ultra-pure PLA raw materials derived from corn extract, non-toxic.

SUNLU PLA Filament 1.75mm

The most commonly used 3D printer filament

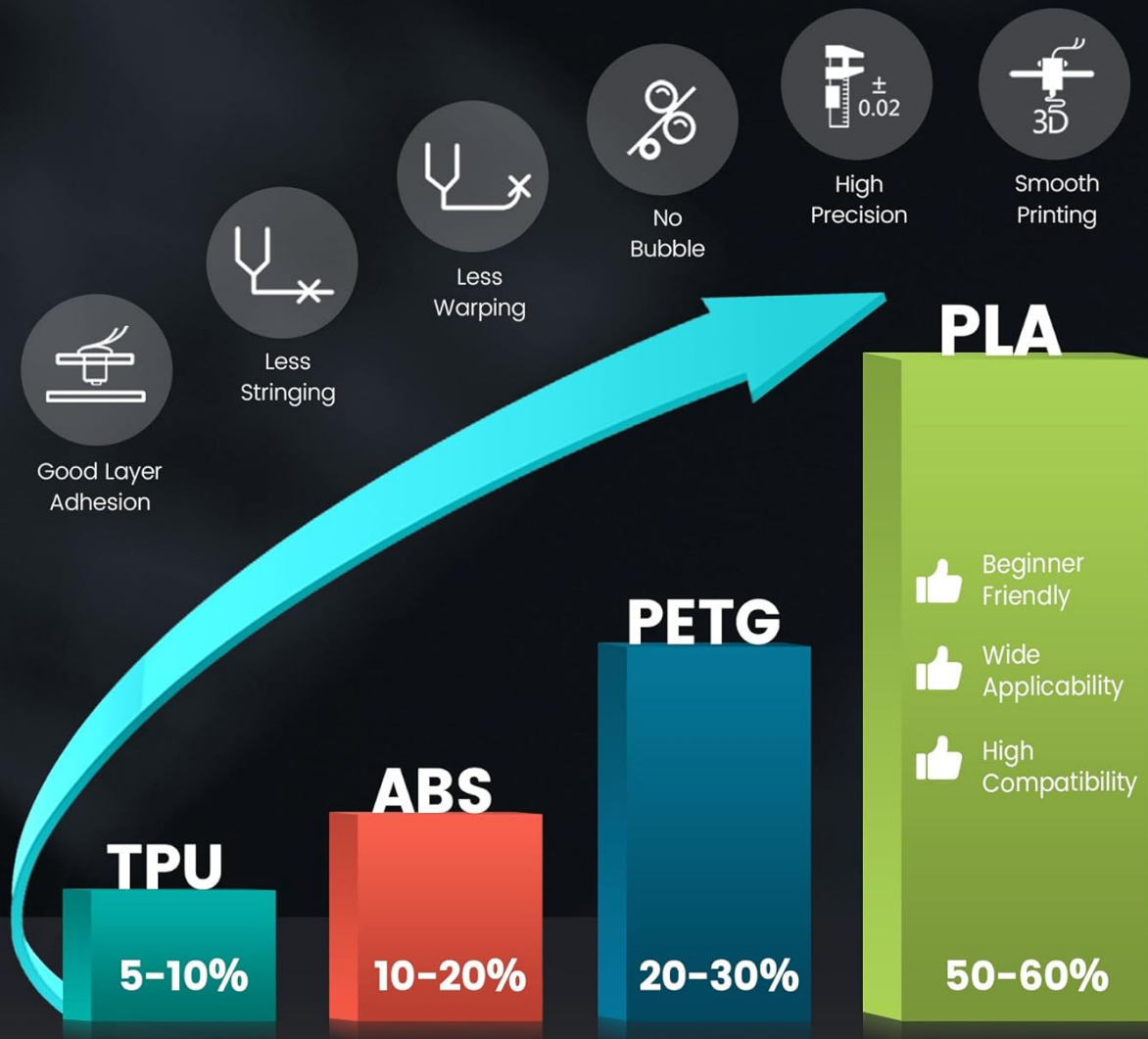


Figure 1: Key properties of SUNLU PLA Filament, highlighting its advantages for 3D printing.

Ultra-Pure PLA Raw Materials

Non-Toxic, Excellent Performance.



Figure 2: Illustration of PLA raw materials derived from corn extract, emphasizing its non-toxic composition.

SETUP AND SPOOL ASSEMBLY

The SUNLU PLA filament may come with a reusable spool design, allowing you to replace the filament core while retaining the outer spool. This section details how to assemble the refill filament onto the reusable spool.

Assembling the Reusable Spool

1. **Separate the Spool Sides:** Gently pull apart the two halves of the reusable spool.
2. **Prepare New Refill:** Unpack the new refill filament. **Do NOT remove the plastic straps** that hold the filament neatly wound until instructed.
3. **Load Refill Filament:** Align the refill filament with the central hub of one spool half. Ensure the small triangular mark on the filament core aligns with the corresponding mark on the spool half.
4. **Combine Spool Halves:** Place the second spool half over the filament, aligning its triangular mark with the filament and the first spool half. Press firmly to combine.
5. **Lock the Spool:** Rotate one side of the spool towards the "lock" mark until it clicks securely into place.

6. **Remove Plastic Straps:** Once the spool is securely assembled, carefully remove the plastic straps from the filament. Ensure the filament is pressed close to the spool to prevent any gaps.

Your browser does not support the video tag.

Video 1: Step-by-step guide on assembling the SUNLU refill filament onto the reusable spool.

How to Use SUNLU Reusable Spool

Simple to Use, Easy to Print

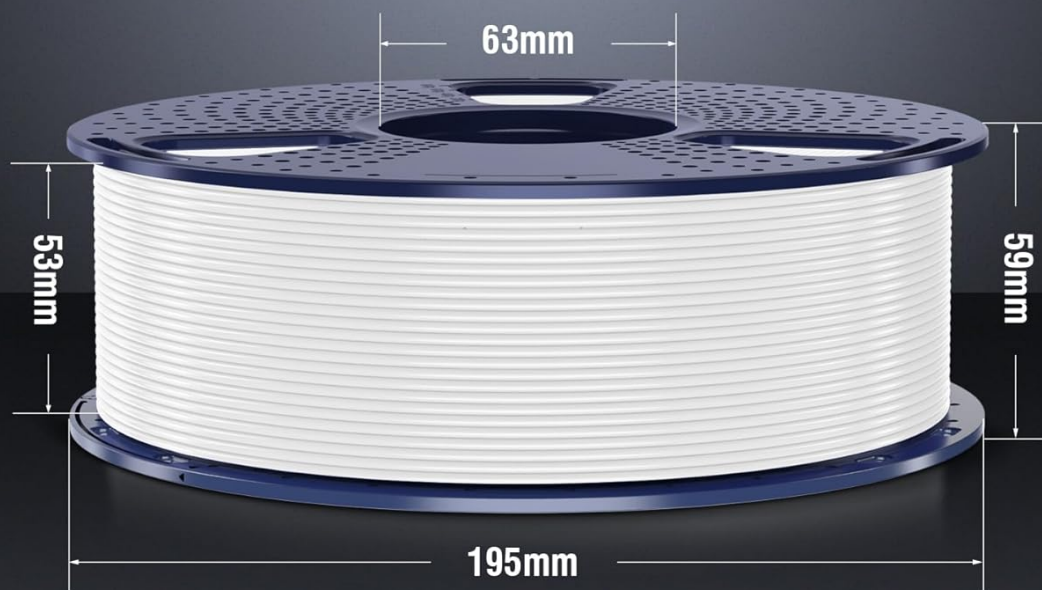


Figure 3: Visual instructions for assembling the SUNLU reusable filament spool.

OPERATING GUIDELINES

For optimal printing results with SUNLU PLA filament, adhere to the following recommended settings and practices:

Recommended Printing Settings for SUNLU PLA

Setting	Recommended Range
Nozzle Temperature	200-230°C
Bed Temperature	50-65°C

Setting	Recommended Range
Printing Speed	50-100mm/s

Always perform a small test print or calibration cube when using new filament or adjusting settings to fine-tune for your specific 3D printer model.



Figure 4: Examples of objects that can be created using FDM 3D printing with SUNLU PLA filament.

MAINTENANCE AND STORAGE

Proper maintenance and storage of your PLA filament are crucial for preserving its quality and ensuring consistent print results. PLA can absorb moisture from the air, which can lead to printing issues such as bubbling, stringing, and reduced print strength.

Storage Recommendations:

- **Keep Dry:** Store filament in a cool, dry place, away from direct sunlight and humidity.

- **Airtight Container:** After opening, store the filament in an airtight container or resealable bag with desiccant packets (silica gel) to absorb moisture.
- **Original Packaging:** If possible, keep the filament in its original vacuum-sealed packaging until ready for use.
- **Prevent Tangling:** To prevent tangling, always insert the filament end into the side holes of the spool after each use.



Figure 5: A neatly wound spool, illustrating the design that helps prevent tangles and ensures smooth feeding.

TROUBLESHOOTING COMMON ISSUES

While SUNLU PLA filament is designed for reliability, occasional printing issues may arise. Here are some common problems and their potential solutions:

Common Printing Issues and Solutions

Issue	Possible Cause(s)	Solution(s)

Issue	Possible Cause(s)	Solution(s)
Clogging/Jams	Moisture absorption, incorrect temperature, tangled filament.	Dry filament (use a filament dryer), adjust nozzle temperature, ensure filament is neatly wound and not tangled.
Bubbles/Steam during printing	Moisture in filament.	Dry filament thoroughly before use.
Poor Layer Adhesion	Low nozzle temperature, incorrect bed temperature, dirty print surface.	Increase nozzle/bed temperature within recommended range, clean print bed, apply adhesive if necessary.
Warping	Insufficient bed adhesion, drafts, incorrect bed temperature.	Ensure proper bed adhesion, use an enclosure, optimize bed temperature.
Stringing	High nozzle temperature, incorrect retraction settings, wet filament.	Lower nozzle temperature, adjust retraction distance/speed, dry filament.
Filament breaking/brittle	Moisture absorption, old filament.	Dry filament, ensure proper storage.

For persistent issues, consult your 3D printer's specific manual or contact SUNLU customer support.

SPECIFICATIONS

- **Material:** Polylactic Acid (PLA)
- **Filament Diameter:** 1.75mm
- **Dimensional Accuracy:** +/- 0.02mm
- **Net Weight:** 1kg (2.2 lbs)
- **Spool Diameter:** 8.00 inches (200mm)
- **Spool Width:** 2.50 inches (64mm)
- **Spool Hub Hole Diameter:** 2.20 inches (56mm)
- **Recommended Nozzle Temperature:** 200-230°C
- **Recommended Bed Temperature:** 50-65°C
- **Recommended Printing Speed:** 50-100mm/s
- **Color:** Skin Beige (for this specific variant)

WARRANTY AND SUPPORT

For any questions, technical assistance, or warranty inquiries regarding your SUNLU PLA 3D Printer Filament, please refer to the official SUNLU website or contact their customer support directly. Keep your purchase receipt for warranty claims.

You can find more information and products from SUNLU at their official store [SUNLU Official Store on Amazon](#).

