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> [SUNLU 4KG High Speed PLA Meta Filament Instruction Manual](#)

SUNLU DCUS-PLAMT-WT+WT+WT+WT-1KG*4

SUNLU 4KG High Speed PLA Meta Filament Instruction Manual

Model: DCUS-PLAMT-WT+WT+WT+WT-1KG*4

1. INTRODUCTION TO SUNLU PLA META FILAMENT

The SUNLU PLA Meta filament is engineered for high-speed 3D printing, offering enhanced fluidity and toughness compared to standard PLA. This filament is designed to minimize common printing issues such as clogging and warping, ensuring consistent and reliable results for various 3D printing projects.



Image: Four spools of SUNLU PLA Meta filament, emphasizing its high-speed, high-toughness, and high-liquidity characteristics.

Key Features:

- **High Speed Printing:** Offers 1.5 times greater fluidity than regular PLA, enabling faster print speeds (50-100mm/s)

and smooth extrusion.

- **Enhanced Toughness:** Designed to be more durable and less brittle, resisting breakage from impacts. Printed objects can be sanded, drilled, and painted.
- **Excellent Adhesion:** Provides good layer bonding and adhesion to the print bed, resulting in a glossy surface finish.
- **Neatly Wound:** Mechanically wound to prevent tangles and knots during printing, ensuring a continuous and reliable filament feed.
- **Precise Diameter:** Manufactured with a diameter of 1.75mm and a tolerance level of $\pm 0.02\text{mm}$ for consistent extrusion.

2. SETUP AND INSTALLATION

2.1 Unpacking and Storage

Upon receiving your SUNLU PLA Meta filament, remove it from the outer packaging. The filament spool is individually vacuum-packed to protect it from moisture. Keep the filament in its vacuum-sealed bag with the desiccant packet when not in use to maintain its quality.



Image: SUNLU PLA Meta filament in vacuum packaging, emphasizing the importance of proper storage.

2.2 Spool Assembly and Filament Loading

The SUNLU PLA Meta filament comes on a detachable spool designed for reusability. Follow these general steps for assembly and loading. Refer to your specific 3D printer's manual for detailed filament loading instructions.

1. **Assemble the Spool:** If your spool is detachable, align the two halves and rotate them until they lock into place with a 'click'.
2. **Load Filament:** Place the assembled spool onto your 3D printer's filament holder. Gently feed the filament end into the extruder's input hole.
3. **Extruder Engagement:** Continue feeding until the filament is gripped by the extruder gears. Activate your printer's 'load filament' function to prime the nozzle.



Image: Diagram showing the steps to load filament onto a detachable spool: Load Filament, Position, and Rotary Locking.

3. OPERATING PARAMETERS (RECOMMENDED PRINTING SETTINGS)

Optimal printing results with SUNLU PLA Meta filament can be achieved by using the following recommended settings. These are general guidelines; fine-tuning may be necessary based on your specific 3D printer model and environmental conditions.

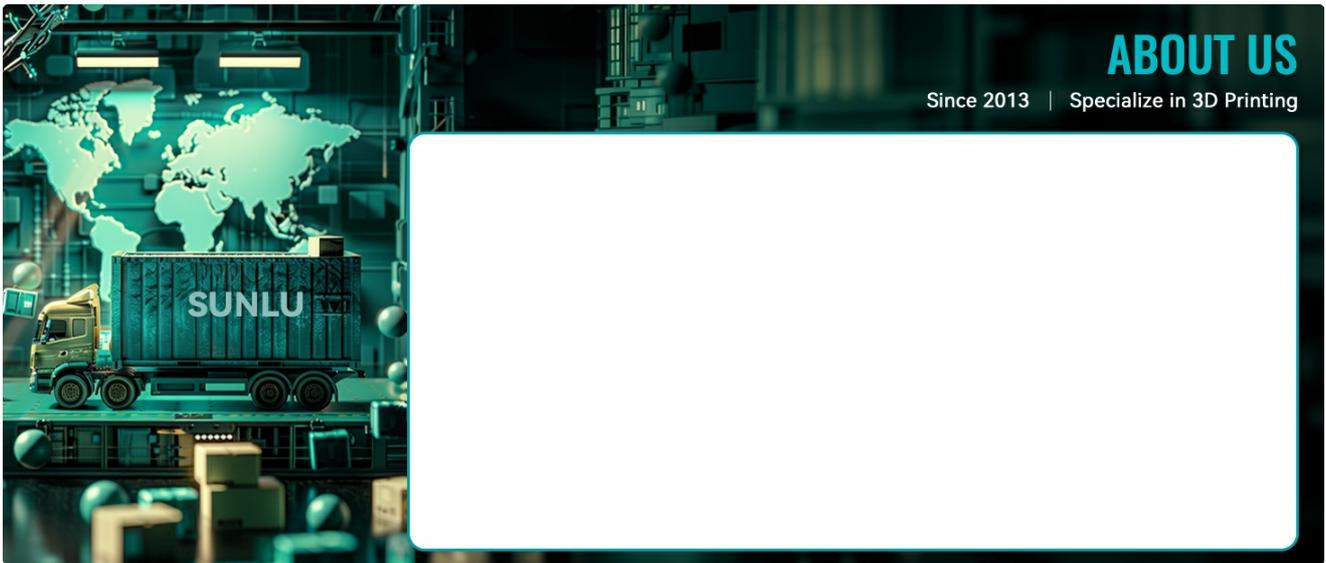


Image: Infographic detailing recommended printing parameters for SUNLU PLA Meta filament.

Parameter	Recommended Setting
Print Nozzle Temperature	185-195°C
Hot Bed Temperature	50-65°C
Print Speed	50-100mm/s
Filament Diameter	1.75mm (± 0.02 mm)
Melting Point	155-170°C
Density	1.24 g/cm ³
Heat Deflection Temperature	54.3°C
Tension KGF	9-12

SUNLU PLA Meta filament is compatible with a wide range of FDM 3D printers. Ensure your printer is properly calibrated for optimal performance.



Image: Various 3D printer models, illustrating the broad compatibility of SUNLU PLA Meta filament.

4. MAINTENANCE

4.1 Filament Storage

Proper storage is crucial for maintaining filament quality. Always store unused SUNLU PLA Meta filament in its original vacuum-sealed bag with the desiccant packet. This prevents moisture absorption, which can lead to printing issues such as bubbling, stringing, and brittleness.

4.2 Printer Maintenance

Regularly clean your 3D printer's nozzle and print bed. A clean nozzle ensures smooth extrusion, while a clean and level print bed promotes optimal first-layer adhesion.

5. TROUBLESHOOTING COMMON PRINTING ISSUES

This section addresses common issues you might encounter and provides solutions for printing with SUNLU PLA Meta filament.

- **Clogging:** SUNLU PLA Meta is designed for high fluidity to reduce clogging. If clogging occurs, verify your nozzle temperature is within 185-195°C. Check for any debris in the nozzle or hotend assembly.
- **Warping:** This filament features low warping properties. If warping occurs, ensure your print bed is clean, level, and heated to 50-65°C. Consider using a brim or raft in your slicer settings for better bed adhesion.
- **Poor Layer Adhesion:** Ensure the print bed is clean and properly leveled. Increase the nozzle temperature slightly within the recommended range or reduce print speed to allow layers to bond effectively.
- **Stringing/Oozing:** Adjust retraction settings (distance and speed) in your slicer software. Ensure the filament is dry, as moisture can contribute to stringing.
- **Brittle Filament:** Filament becoming brittle often indicates moisture absorption. Dry the filament using a dedicated filament dryer or a convection oven at a low temperature (e.g., 45-50°C for 4-6 hours).

NO CLOGGING

Say Goodbye To Clogging

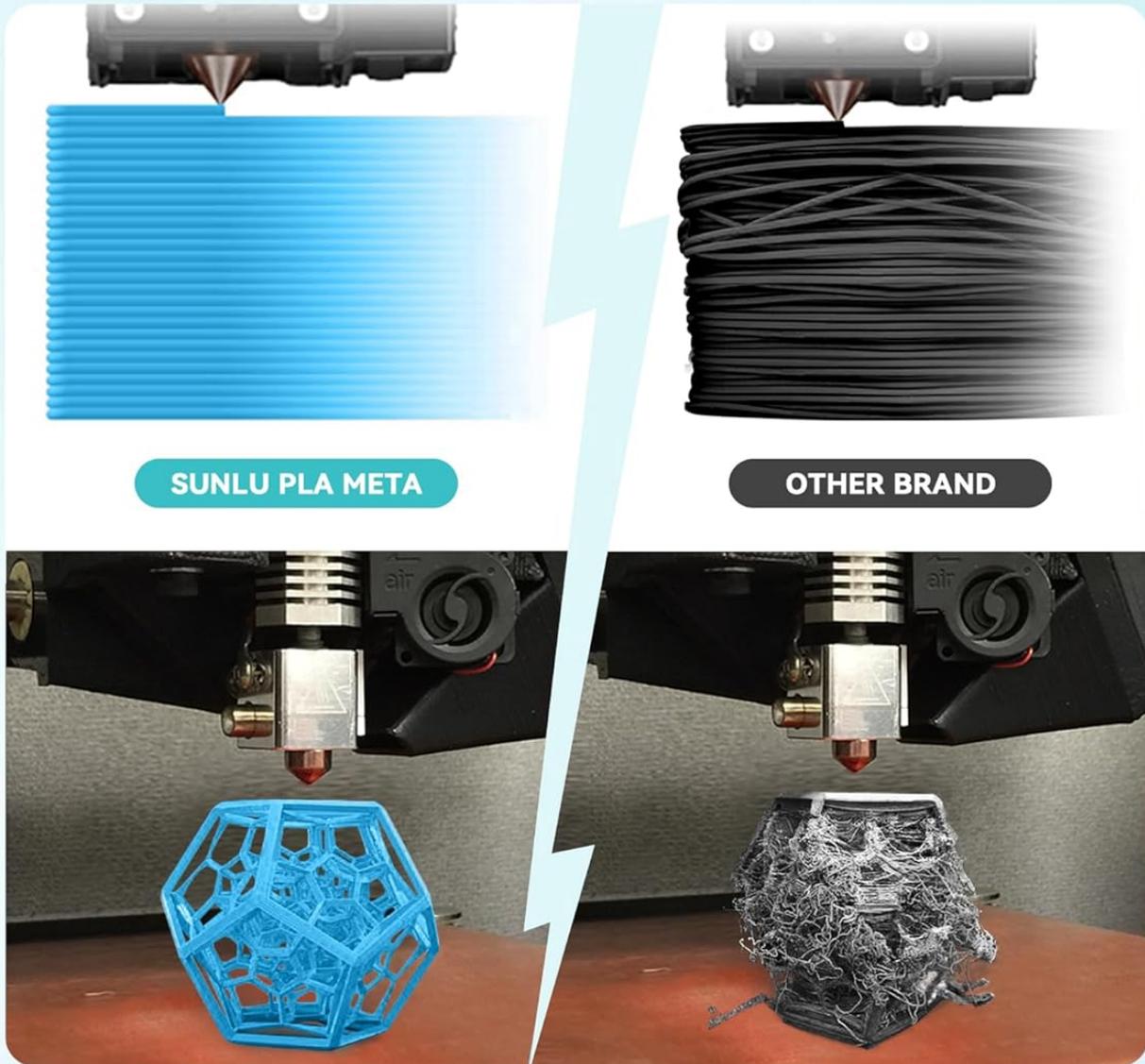


Image: Visual comparison of a successful, clog-free print using SUNLU PLA Meta versus a failed print due to clogging from another filament.

6. PRODUCT SPECIFICATIONS

Detailed specifications for the SUNLU PLA Meta Filament.

Specification	Value
Brand	SUNLU

Specification	Value
Model Number	DCUS-PLAMT-WT+WT+WT+WT-1KG*4
Material Type	Meta PLA, Polylactic Acid
Filament Diameter	1.75 Millimeters
Item Weight (Total)	4 Kilograms (8.8 pounds)
Color	1kg*4 White+white+white+white
Package Dimensions	16.22 x 8.35 x 5.47 inches
Date First Available	November 25, 2024

7. ADDITIONAL RESOURCES

7.1 Product Overview Video

Watch this video for a visual overview of the SUNLU PLA Meta filament's features and performance.

Your browser does not support the video tag.

Video: An official product video demonstrating the key features and benefits of SUNLU PLA Meta filament, including its flexibility, print quality, and ease of use.

7.2 Examples of Printed Objects

SUNLU PLA Meta filament can be used to create a wide variety of functional and artistic 3D prints, including educational models, architectural designs, household items, toys, and decorative pieces.



Image: A collage showcasing diverse objects printed with SUNLU PLA Meta filament, from educational toys to architectural models.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your SUNLU PLA Meta filament, please contact SUNLU customer service directly through their official website or the retailer where the product was purchased. Keep your purchase receipt and product model number for faster assistance.

