

SUNLU S1 Plus

SUNLU S1 Plus Filament Dryer Box User Manual

Model: S1 Plus

Brand: SUNLU

1. INTRODUCTION

The SUNLU S1 Plus Filament Dryer Box is an essential accessory for 3D printing enthusiasts and professionals. It is designed to effectively remove moisture from 3D printer filaments, which can significantly degrade print quality, leading to issues such as stringing, clogging, and poor layer adhesion. By maintaining optimal filament dryness, the S1 Plus ensures smoother surfaces, better print quality, and improved overall printing success.



Figure 1: SUNLU S1 Plus Filament Dryer Box

Video 1: Overview of the SUNLU Filament Dryer Box S1 Plus, demonstrating its features and benefits for 3D printing.

2. PRODUCT FEATURES

- **Fast Drying with Fan:** Features an upgraded fan design for accelerated moisture discharge, reducing the impact of humidity on 3D printing.
- **Visual Display:** Equipped with a 2-inch LCD screen that accurately displays temperature, time, and humidity.
- **Personalized Settings:** Allows adjustment of drying temperature (35°C-55°C) and time (0-24 hours) to suit different filament types and environmental conditions.
- **High Compatibility:** Accommodates filament spools up to 210x89(H)mm, compatible with 1.75mm, 2.85mm, and 3.00mm PLA, PETG, ABS, TPU, Nylon, and PA filaments from various brands.

360° Hot-air Circulation

SUNLU dryer box built-in fan, 360 ° circulation uniform heating, effective drying moisture filament, improve print quality.



Figure 2: Illustration of the 360-degree hot-air circulation system for uniform heating and effective drying.

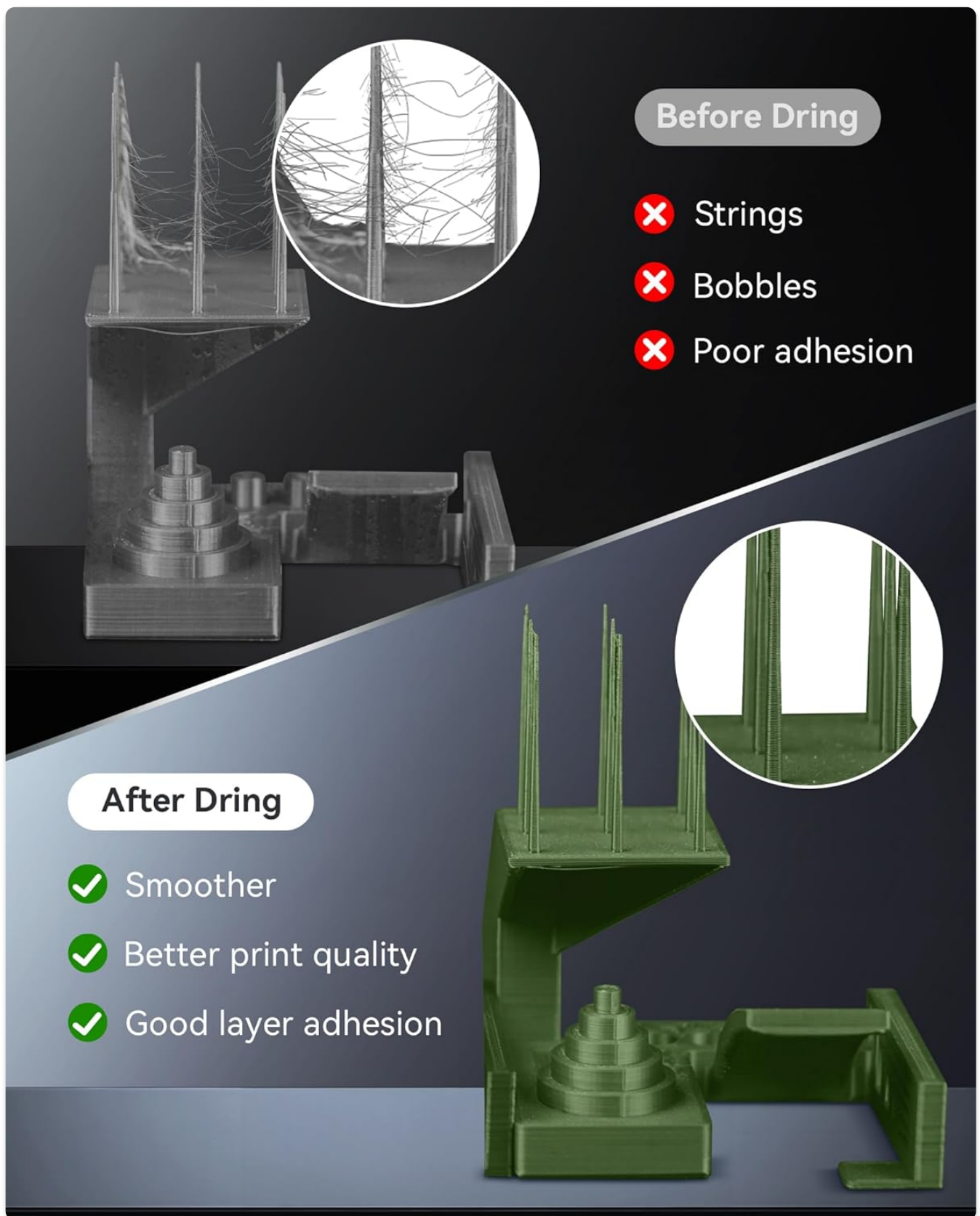


Figure 3: Visual comparison highlighting the benefits of dried filament, including smoother surfaces and better layer adhesion.

3. SETUP GUIDE

3.1 Unboxing and Components

Upon opening the package, ensure all components are present:

- SUNLU S1 Plus Filament Dryer Box
- Power Adapter

- User Guide (this manual)

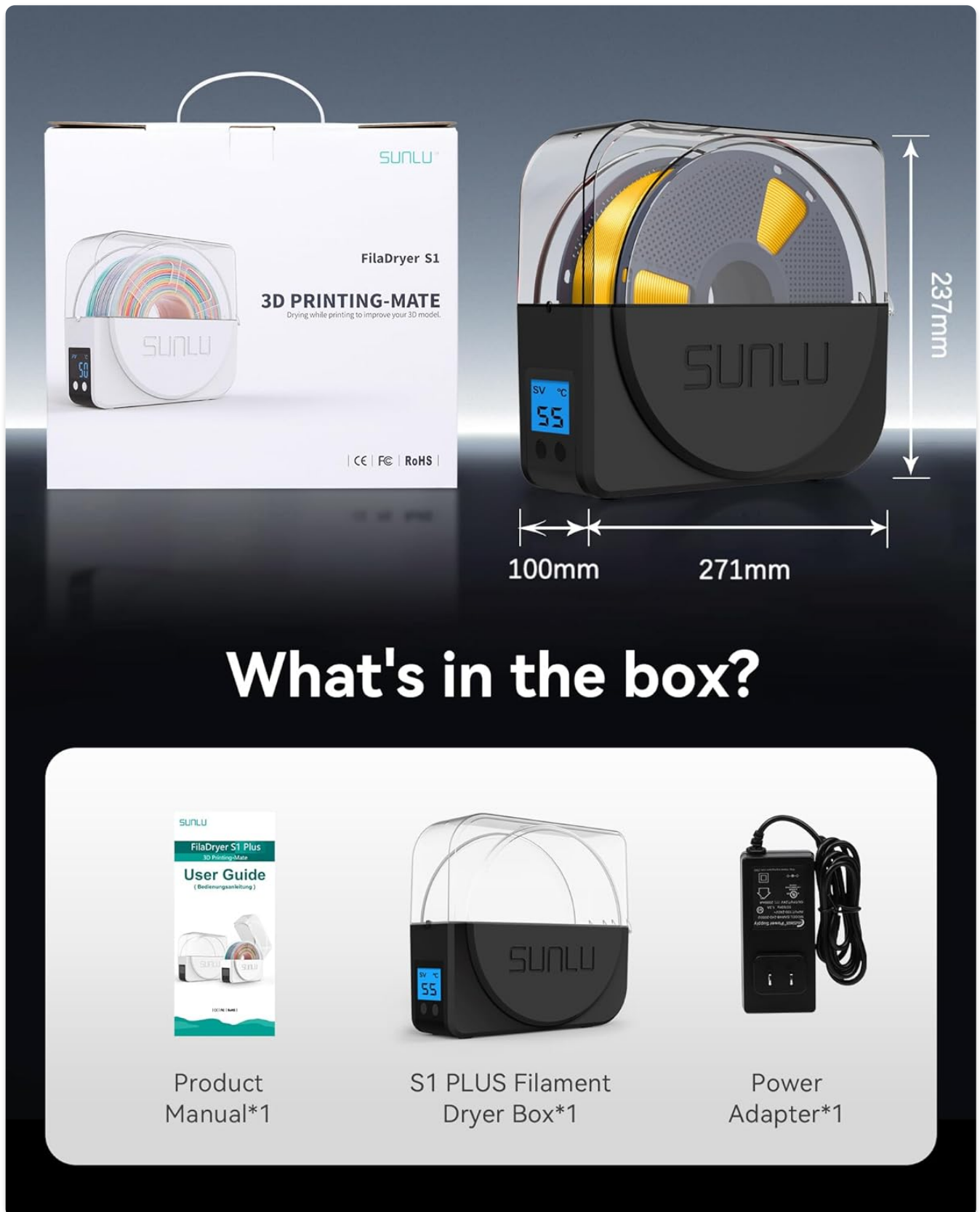


Figure 4: What's in the box.

3.2 Initial Setup

1. Place the SUNLU S1 Plus on a stable, flat surface.
2. Connect the power adapter to the dryer box and plug it into a power outlet.
3. Open the transparent lid of the dryer box.
4. Place your filament spool inside the dryer box. Ensure the filament unwinds smoothly.

5. Close the lid securely.

STEP 1

Turn on the power



STEP 2

Loading your filament



STEP 3

Set the time and temperature



STEP 4

Enjoy your printing fun



Figure 5: Visual steps for turning on, loading filament, setting parameters, and starting printing.

4. OPERATING INSTRUCTIONS

4.1 Controls and Display

The S1 Plus features a 2-inch LCD screen and two control buttons for easy operation.

Function Diagram

Perfect for effortless efficiency!

One-touch operation

Smart time control

Super easy to use

1

2-inch LCD Screen

2

Left button

3

Right button



Figure 6: Function Diagram of the control panel.

4.2 Power On/Off and Mode Selection

1. **Power On:** Hold the left button to power on the device. The LCD screen will light up, displaying the current temperature.
2. **Change Mode:** Press the right button to cycle through display modes: Temperature (PV°C), Humidity (%RH), and Time (SV Time).
3. **Power Off:** The device will automatically power off once the set drying time is complete. To manually turn off, unplug the power adapter.

4.3 Setting Temperature and Time

1. **Set Temperature:** While in Temperature mode, press the left button to enter temperature setting. Use the left and right buttons to adjust the target temperature (SV°C) between 35°C and 55°C.
2. **Set Time:** While in Time mode, press the left button to enter time setting. Use the left and right buttons to adjust the drying duration (SV Time) from 0 to 24 hours.
3. The device will automatically begin heating and drying once settings are confirmed.

Video 2: Demonstration of setting temperature and time on the SUNLU 3D Printer Filament Dryer S1 PLUS.

4.4 Filament Compatibility and Recommended Settings

The S1 Plus is compatible with various filament types. Refer to the table below for recommended drying temperatures and times:

Recommended Drying Temperature for Filaments

PLA

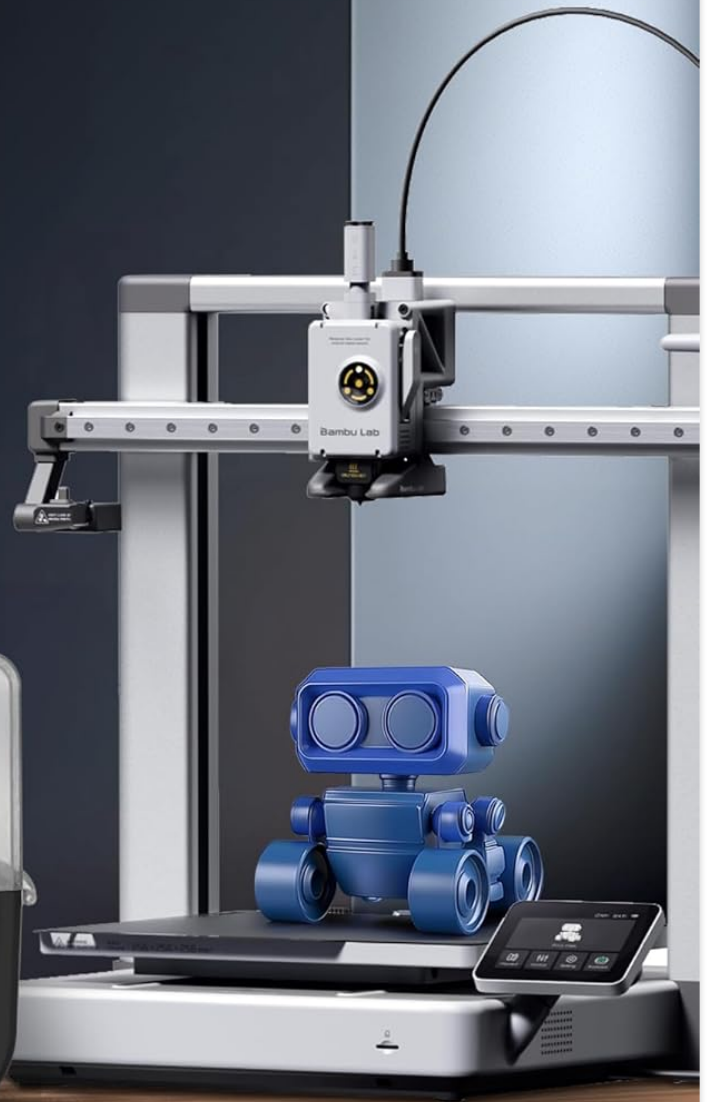
45-50°C

PETG / TPU

48-52°C

ABS / PA / ASA

50-55°C



Temperature Range: 35°C to 55°C

Figure 7: Recommended Drying Temperature for Filaments.

Material	Baking Temp (°C)	Time (Hours)
PLA, WOOD, PVB	45-50	3-6
ABS, HIPS, PC, PA	50-55	3-6
PETG, TPU	47-51	3-6

Note: These are general recommendations. Optimal settings may vary based on filament brand, age, and ambient humidity.

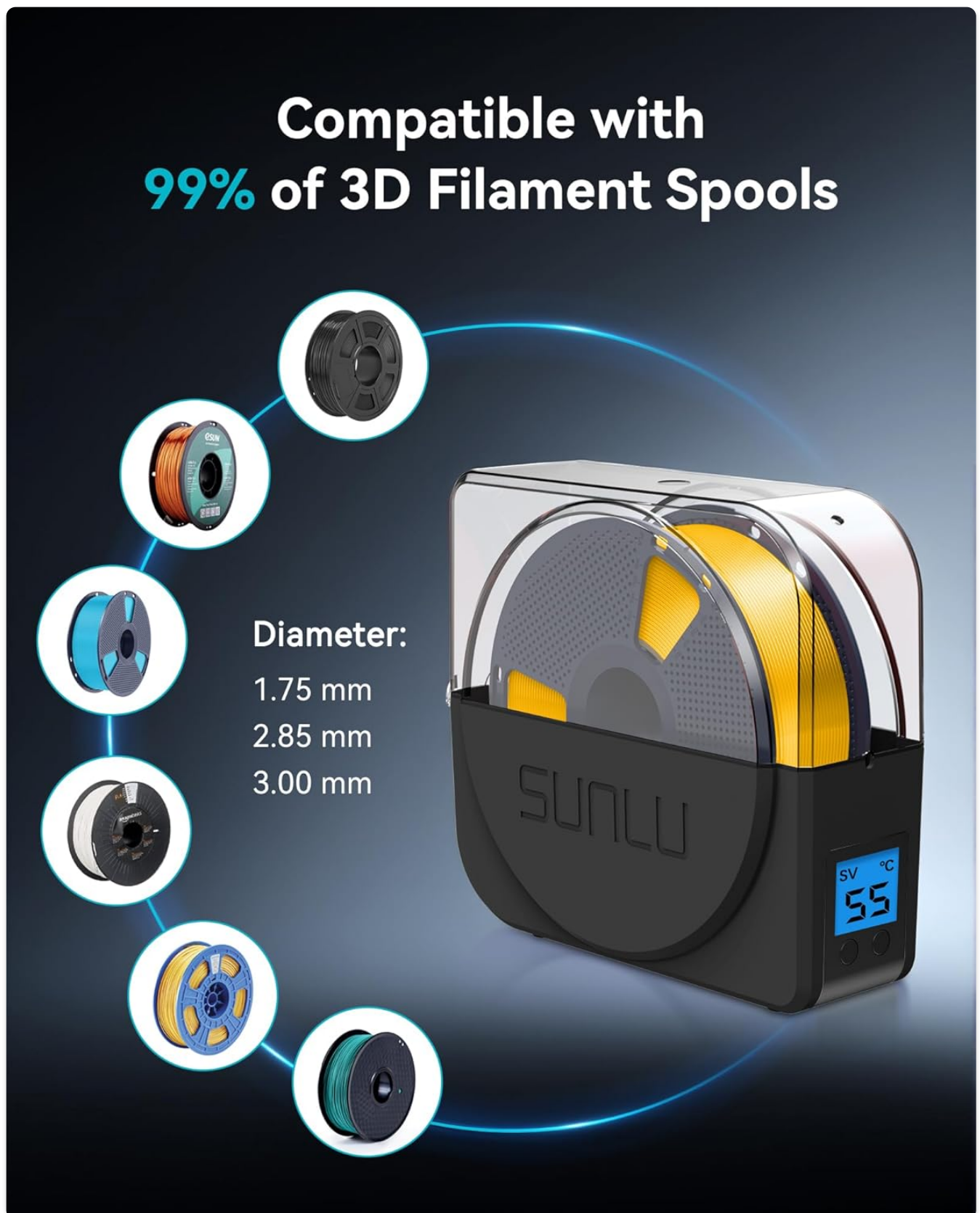


Figure 8: High Compatibility with 99% of 3D Filament Spools.

5. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your SUNLU S1 Plus Filament Dryer Box.

5.1 Cleaning

- Before cleaning, ensure the device is unplugged and completely cooled down.
- Wipe the exterior and interior surfaces with a soft, dry cloth.
- Do not use abrasive cleaners or solvents, as they may damage the plastic.
- Ensure no liquids enter the electronic components.

5.2 Storage

- When not in use, store the dryer box in a cool, dry place away from direct sunlight.
- It is recommended to store filament in sealed bags with desiccant after drying to prevent re-absorption of moisture.

6. TROUBLESHOOTING

If you encounter issues with your 3D prints, consider the following common problems and solutions related to filament moisture:

- **Stringing, Blobs, or Zits:** These are common indicators of wet filament. Ensure your filament has been adequately dried using the recommended settings for its material type.
- **Clogging or Extrusion Issues:** Moisture can cause steam bubbles during extrusion, leading to clogs. Dry your filament thoroughly before printing.
- **Poor Layer Adhesion:** Wet filament can result in weaker layer bonds. Drying the filament can significantly improve print strength and adhesion.
- **Noisy Operation:** The S1 Plus is designed for low noise operation. If you experience unusual or excessive noise, ensure the unit is on a stable surface and there are no obstructions to the fan or filament spool.

Low Noise Operation

Enjoy efficient drying, say goodbye to loud noises and experience the perfect balance of efficiency and tranquillity



Figure 9: Low Noise Operation for a peaceful printing environment.

7. SPECIFICATIONS

Attribute	Detail
Brand	SUNLU
Model Number	SUNLU S1 PLUS Noir





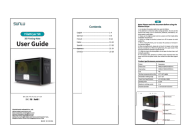
Attribute	Detail
Item Weight	2.64 pounds (1.2 Kilograms)
Product Dimensions	9.33 x 3.94 x 10.67 inches
Color	Black
Material Type	Polyethylene Terephthalate Glycol (Housing)
Number of Items	1
Compatible Filament Diameter	1.75mm, 2.85mm, 3.00mm
Adjustable Temperature Range	35°C-55°C
Adjustable Drying Time	0-24 hours

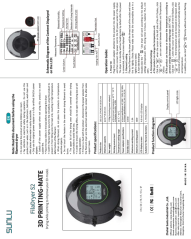
8. WARRANTY AND SUPPORT

SUNLU provides after-sales service and technical support for the S1 Plus Filament Dryer Box. If you have any questions, require assistance, or experience issues with your product, please do not hesitate to contact SUNLU customer service.

For support, please refer to the contact information provided on the official SUNLU website or through your purchase platform.

Related Documents - S1 Plus

	SUNLU FilaDryer S2 3D Printing Filament Dryer User Manual Comprehensive user manual for the SUNLU FilaDryer S2, a 3D printing filament dryer. Learn about setup, operation, personalized settings, troubleshooting, and specifications for optimal filament drying.
	SUNLU FilaDryer S4 User Guide: Optimize Your 3D Printing Filament Comprehensive user guide for the SUNLU FilaDryer S4. Learn how to safely and effectively dry your 3D printing filaments for optimal results, including setup, operation, and troubleshooting.
	SUNLU FilaDryer S4 User Guide for 3D Printing Filament Official user guide for the SUNLU FilaDryer S4, a device designed to dry and store 3D printing filaments, ensuring optimal printing quality. Learn about setup, operation, and maintenance.
	SUNLU FilaDryer S2: User Manual and Guide for Filament Drying Comprehensive user manual for the SUNLU FilaDryer S2, detailing setup, operation, personalized settings, troubleshooting, and tips for optimal 3D printing filament drying. Learn how to dry PLA, PETG, ABS, and more.
	SUNLU FilaDryer S4 User Guide: Optimize Your 3D Printing Filaments Comprehensive user guide for the SUNLU FilaDryer S4, detailing setup, operation, recommended drying temperatures for various filaments, troubleshooting, and maintenance for optimal 3D printing results.



[SUNLU FilaDryer S2 3D Printing Filament Dryer User Manual](#)

This user manual provides comprehensive instructions for operating the SUNLU FilaDryer S2, a 3D printing filament dryer. It covers safety precautions, product specifications, detailed operation guides, personalized settings, troubleshooting, and warranty information.