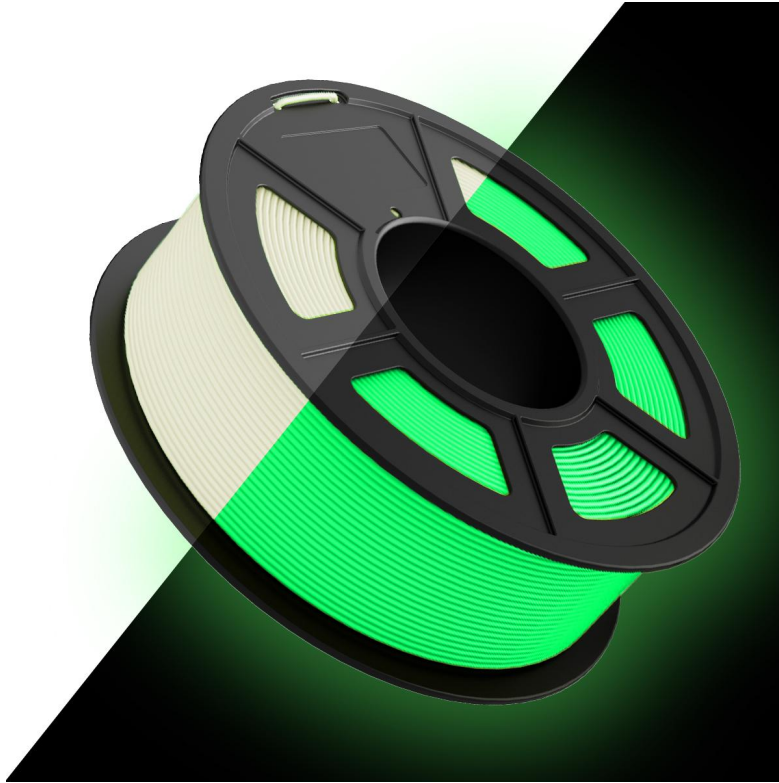


## Technical Data Sheet

### SUNLU PLA Glow in Dark Filament



#### Product Introduction

Based on PLA material

1. Absorb sunlight (UV), can glow in the dark
2. Environmentally friendly, non-toxic, biodegradable
3. Bright color
4. Low shrinkage
5. High strength and rigidity

Suitable for all models of FDM3D printers, suitable for printing crafts, artwork and industrial design samples.

## Chemical Resistant

Items	Rating
Effect of weak acids pH3-6	Good
Effect of strong acids pH<3	Poor
Effect of weak bases pH 8-10	Good
Effect of strong bases pH >10	Poor
Deionized water	Good
Ethanol	Fair
Acetone	Poor
Gasoline	Good
Ether	Good
Grade Classification: excellent, good, fair, poor	

## Recommended Print Setting

Nozzle(Printing) Temp.	200°C-210°C
Plate Material	No Limited
Surface Treatment of Plate	No Required
Plate Temp.	50-60°C
Cooling Fan	100%
Printing Speed	40-60mm/s
Bottom Valve Separation Distance	0.4-0.6
Retraction Distance	5mm
Retraction Speed	30mm/s
Ambient Temp.	Indoor Temp
Critical Value of Overhang Angle	/
Recommended Support Material	PVA
Drying Temp.	50-55°C

## Performance

<b>Thermal Performance</b>	<b>Methods</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
Glass Transition Temp.	ASTM D7426	10°C/min	62	°C
Melting Temp.	ASTM D7426	10°C/min	162	°C
Decomposition Temp. @5%	ASTM E2402	20°C/min	≥300	°C
Heat Distortion Temp.	ASTM D648	0.45MPa	53	°C
Vicat Softening Temp.	ASTM D1525	5kg,50°C/h	/	°C
Shrinkage	ASTM D955	23°C	/	%
Coefficient of Thermal Expansion	ASTM E831		/	μm (m·°C)
<b>Electrical Performance</b>	<b>Methods</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
Volume Resistivity	ASTM D257		1.05*10 <sup>12</sup>	ohm-cm
Dielectric Constant	ASTM D150	1kHz	3.4	
<b>Physical Performance</b>	<b>Methods</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
Density	ASTM D792	@23°C	1.26	g/cm <sup>3</sup>
Melt Index	ASTM D1238	190°C/2.16K G	6	g/10min
<b>Flame-retardant Performance</b>	<b>Methods</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
Flame Retardancy	UL94	1.5mm	HB	
<b>Mechanical Performance</b>	<b>Methods</b>	<b>Conditions</b>	<b>Values</b>	<b>Units</b>
Tensile Strength	ASTM D638	50mm/min	49	MPa
Young's Modulus	ASTM D638	1mm/min	3200	MPa
Elongation at Break	ASTM D638	50mm/min	21	%
Flexural Strength	ASTM D790	2mm/min	79	MPa
Flexural Modulus	ASTM D790	2mm/min	2155	MPa
Cantilever Beam Notched Impact Strength	ASTM D256	3.2mm	31	J/m

**P.S.**

**\*Mechanical Performance data are from SUNLU Internal Test**

## Precautions

### Install filament

1. Install the spool on the spool holder of a 3D printer, and preheat the nozzle of the 3D printer.
2. Cut the filament tip diagonally, and pass it through the extruder and feeding tube.
3. Manually push the filament through the feeding tube to the nozzle, until the filament melts through the nozzle.

### Special Attention

When installing and changing filament, we highly suggest to preheat the nozzle firstly to reduce the nozzle block risk.

### Safe Package:

Vacuum packing with desiccant, effectively protect the filament dry and remain neat, maintain good printing results.