

Technical Data Sheet

SUNLU Photopolymer Standard Resin



Product Introduction

	Standard UV resin: Suitable for beginners and printing
model figurines; easy to shape, good accuracy, low	
	and cost-effective

Product Introduction

Colors: Black, White, Gray (Light Gray), Dark Gray, skin(beige), Orange, Green; Transparent, Transparent Blue, Transparent Red, Transparent Green; Mint Green, Sky Blue, Taro Purple, Sakura Pink, Lemon Yellow, a total of 16 colors.

Liquid Properties

Item Name	Photopolymer Standard Resin
Curing Wavelength	395-405nm
Liquid Density (FA1004J Density	1.05-1.15 g/cm3
Scale)	
Resin Viscosity(NDJ-8S	100-350 mPa.s,25 °C
Rotational Viscometer)	
Storage Conditions	15-35 °C (Sealed and light-shielded storage)
Shelf Life	24 Months
Cleaning Method	Use 95% or higher ethanol or isopropanol for cleaning, and it
	is more effective when combined with a brush or ultrasonic
	cleaning.
Post-Curing Method	After cleaning, post-curing process in a curing chamber for 3-5
	minutes.

Suggested Printing Parameters

Optimal Printing Environment	25-30℃
Temperature	
Recommended Layer Thickness	0.05mm(More detailed results applying 0.03mm)
Bottom Layers	3-5 Layers
Bottom Layer Exposure Time	Color screen printer:20-80 seconds
	Monochrome screen printer: 10-60 seconds
Layer Exposure Time	Color screen printer:4-15 seconds
	Monochrome screen printer:2-4 seconds
Lift Height	6-10 mm (For machines with a screen size of 7 inches or
	above, it is recommended to set the lift height more than 8
	mm, and for machines with that of ten inches or above, it is
	recommended to set the lift height more than 10 mm).
Lift Speed	60-120 mm/min
Return/Descent Speed	120-180 mm/min
Lamp Off Delay (seconds)	0.5-1 s

Post-Printing Cured Performance

Item	Data
Solid Density (FA1004J Density Scale)	1.16-1.21g/cm3
Volumetric Shrinkage	7-9 %
Shore Hardness	80-85 D
Coefficient of Thermal Expansion	95*E-6/K
Glass Transition Temperature(Tg)	48 ℃
Decomposition Temperature @5%TGA	355.54 ℃
Heat Deflection Temperature ISO75 @0.45MPa	55 ℃
Tensile Strength ISO527	36 MPa
Young's Modulus ISO527	1280 MPa
Elongation at Break ISO527	10%
Flexural Strength ISO 178	40 MPa
Flexural Modulus ISO 178	1430 MPa
Izod Impact Strength ISO 179	30 J/m

Notes

This resin is not meant for contact with food, drinks, or medical use on or in the human body.

Always read the material safety data sheet thoroughly. Resins are classified as dangerous chemicals and must be disposed of properly in designated containers. Resin bottles (empty or full) must never be disposed of or poured into the general waste.



Precautions

- 1. Environmental requirements: $20-30^{\circ}$ Cambient temperature, do not print near windows or in other environments exposed to UV light, and try to keep away from children and pregnant woman.
- 2. Shake the resin well before use to prevent the components from solidification.
- 3. Wear nitrile gloves and a protective mask when using the resin and keep the room ventilated.
- 4. The residue on the surface of the 3d printed resin parts can be washed with alcohol at a concentration of 95% or more, and it is recommended that the cleaning process should not take more than 1 minute.
- 5. pores and other details of the alcohol is not easy to clean to the place can be used ultrasonic or filled with alcohol syringes and other auxiliary tools to clean, and alcohol should not be cleaned too many times to ensure the purity of alcohol, the concentration of impure alcohol cleaning model will lead to whitening and wash the phenomenon of unclean. Specific cleaning time, until the surface of the resin parts no sticky feeling, no residual resin in the pores of the effect shall prevail.
- 6. Drain or blow dry the residual alcohol after cleaning and place under UV light or sunlight, and irradiate all parts of the model evenly until the surface of the resin parts feels dry and hard enough.
- 7. Use hand sanitizer or dishwashing liquid to wash away any resin residue on the skin, but try not to touch the alcohol-washed resin residue with your hands.
- 8. If the resin accidentally gets into your eyes or mouth, wash it off immediately with plenty of water and consult a doctor if you feel unwell.

Safe Package:

Thickened aluminum bottle completely protected from light. Leak-proof bottle fully wrapped with a plastic bubble bag to ensure the resin stays in right place.