

## Technical Data Sheet

### SUNLU High-Temperature UV Resin



## Product Introduction

<p><b>Product Introduction</b></p>	<p>Excellent heat resistance: Heat deformation at 120°C-140°C; No cracking or deformation in the mold at 150°C/1h and 180°C/15 minutes.</p> <p>Low odor</p> <p>High precision</p> <p>Low shrinkage</p> <p>High hardness: Hardness up to 88D, ensuring the mold remains stable during compression molding.</p>
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## Liquid Properties

<b>Curing Wavelength</b>	395-405nm
<b>Liquid Density (FA1004J Density Scale)</b>	1.14-1.20 g/cm <sup>3</sup>
<b>Resin Viscosity(NDJ-8S Rotational Viscometer)</b>	250-550 mPa.s,25°C
<b>Storage Conditions</b>	15-35°C (Sealed and light-shielded storage)
<b>Shelf Life</b>	24 Months
<b>Cleaning Method</b>	Use 95% or higher ethanol or isopropanol for cleaning, and it is more effective when combined with a brush or ultrasonic cleaning.
<b>Post-Curing Method</b>	After cleaning,post-curing process in a curing chamber for 3-5 minutes.

## Suggested Printing Parameters

<b>Optimal Printing Environment Temperature</b>	25-30°C
<b>Recommended Layer Thickness</b>	0.05mm ( More detailed results applying 0.03mm )
<b>Bottom Layers</b>	3-5 Layers
<b>Bottom Layer Exposure Time</b>	Color screen printer:20-80 seconds Monochrome screen printer: 10-60 seconds
<b>Layer Exposure Time</b>	Color screen printer:4-15 seconds Monochrome screen printer: 2-4 seconds
<b>Lift Height</b>	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).
<b>Lift Speed</b>	60-120 mm/min
<b>Return/Descent Speed</b>	120-180 mm/min
<b>Lamp Off Delay (seconds)</b>	0.5-1 s

## Post-Printing Cured Performance

Item	Data
<b>Solid Density (FA1004J Density Scale)</b>	1.24-1.30 g/cm <sup>3</sup>
<b>Volumetric Shrinkage</b>	7-9 %
<b>Shore Hardness</b>	86-90 D
<b>Coefficient of Thermal Expansion</b>	95*E-6/K
<b>Glass Transition Temperature(Tg)</b>	110 °C
<b>Decomposition Temperature @5%TGA</b>	390 °C
<b>Heat Deflection Temperature ISO75 @0.45MPa</b>	130 °C
<b>Tensile Strength ISO527</b>	43 MPa
<b>Young's Modulus ISO527</b>	2070 MPa
<b>Elongation at Break ISO527</b>	8%
<b>Flexural Strength ISO 178</b>	54 MPa
<b>Flexural Modulus ISO 178</b>	2057 MPa
<b>Izod Impact Strength ISO 179</b>	48 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° 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.