



# Water-Clean Resin

**Photoreactive Resin for Dazz 3D L120/L120Pro Printer**

**Technical Data Sheet**

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LCD water-clean photosensitive resin W1 is a solvent-free, low viscosity, high precision photocurable 3D printing resin. Suitable for laser and LED light source. It can be molded in a few seconds under the irradiation of 385nm and 405nm light source. The photosensitive resin mixture formula is optimized and can effectively suppress the beam penetration and avoid deep curing. The minimum layer thickness of single exposure can be controlled at 0.025. Mm. It could achieve high molding precision; fast curing speed with low odor and low irritancy. With low exposure, the resin can be quickly cured with smooth and delicate appearance. The resin has good water solubility. Clean the model with water and dried to obtain a dry surface.

## 1.Applications

It can be used to make models in the fields of architecture, dolls, automobiles, medical, consumer electronics, etc. It has been used in functional parts, normal part, prototype fields. This resin can be used in Dazz L120/L120PRO 3D printer and the same type of LCD 3D printer.

## 2.Technical Data

### 1)Physical Properties of Liquid Resin

Version	W1
Appearance	Gold, clear liquid
Specific gravity(25 °C)	1.11-1.12
Viscosity ( 25°C , cps,NDJ-8S )	25-45cps
Critical Exposure ( mj/ cm <sup>2</sup> )	6
Cured Thickness Rang ( mm )	0.02-0.10
Recommend Thickness ( mm )	0.05-0.1
Solidify Dp thickness ( mm )	0.12

### 2)Properties of Cured Resin

Item	Method	Numerical Value (Secondary Cure)
Shore Hardness	ASTM D 2240	75
Tensile Strength ( MPa )	ASTM D 638	35-45
Elongation at break(%)	ASTM D 638	10-20
Glass transition temperature (°C)	ASTM D 648	74

### 3)Advice of Secondary Cure

After the printing, the parts are removed. Since the molding is only preliminary curing and is not fully cured, deformation may occur under the influence of temperature and

humidity. It is recommended to perform second curing immediately after printing to prevent deformation. Proper second curing is necessary. The curing time is as follows, for reference only, customers can determine the curing time according to the thickness of the object:

UV Power	Correspond Distance	Intensity ( 100mW/cm <sup>2</sup> )	Cure Time(min)
2000W High-voltage Mercury Lamp	15-20CM	100	2-3
300W High-voltage Mercury Lamp	10CM	6	5-15
125W High-voltage Mercury Lamp	10CM	3	10-20
40W LED Tube	10	<1	15-30

### 3. User Guide

1. Pour the photosensitive resin (shake evenly before use to avoid chromatic aberration) into a clean resin tank. Air bubbles will be generated during the pouring process. Stand the resin for 10 minutes. The printing can be started after the bubbles disappear.

2. Adjust the accuracy and speed of the printer according to the model you want to print. After confirming the printing method, press the software to print.

3. The product is sensitive to sunlight and visible light. When the printer is not in use, the remaining photosensitive resin should be poured out from the resin tank and stored in the dark, but it cannot be poured into the unused resin to avoid pollution.

4. After the model is printed, clean the model with the forming platform directly with water;

5. Dry the surface of the model with a dryer;

6. With/Without the forming platform, the model is placed in a UV curing oven for post-cure. The specific curing time is related to the power of the curing lamp. The LED curing lamp is recommended to cure on each side for about 5 minutes.

### 4. Safety Precautions

**1) Eye Contact:** Immediately flush with plenty of clean water (under eye lids) for at least 20 minutes.

Hold eyelids apart to ensure flushing. Washing within one minute of contact is essential to achieve maximum effectiveness. Seek medical attention immediately.

**2) Skin Contact:** Remove contaminated clothing and rinse contact area thoroughly with soap and

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water.

3)Dazz 3D resin is not approved for use with food, drink, or medical application on the human body.

4)For additional information please see the Material Safety Data Sheet.

**5.Packing Specification:** 500g/bottle

## **6. Storage**

Store the product in a cool, dry place. The remaining photosensitive resin should not be returned to the original bottle. The bottle cap should be tightened after opening. This product can be stored for 12 months at 18-28 °C, and can not be stored frozen.

