

Dazz 3D High Temp Photosensitive Resin HT3 Specification

1.Product introduction

LCD high temp photosensitive resin HT3 is a solvent-free, medium 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 model can resist 180°C temperature.

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

2.Suggested printing parameter(for L120/L120 Pro):

Power 1500, time 6-9 seconds, layer thickness 0.05mm, exposure time for first layer 60-100s, printing layer amount 8-15.

3.Technical Data

(1).Physical properties of liquid resin

Version	HT3
Appearance	Orange liquid
Specific gravity(25 °C)	1.05-1.13
Viscosity (25°C, cps,NDJ-8S Viscosity gauge)	600-800cps
Ec critical exposureEc (mj/ cm2)	7
Solidify Dp thickness (mm)	0.12
Layer thickness range (mm)	0.02-0.10
Suggested layer thickness (mm)	0.025-0.05

(2).Physical properties of solidified resin

Test Item	Test Method	Range
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Hardness (D)	ASTM D 2240	90
Tensile Strength (MPa)	ASTM D 638	50-55
Elongation at Break (%)	ASTM D 638	3-6
Glass transition temperature (°C)	ASTM D 648	180

(3).Second solidification

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.Heated second curing is better. The curing time is as follows, for reference only,customers can determine the curing time according to the thickness of the object:

Ultra violet light	Distance	Power (100mW/cm2)	Curing time(min)
2000W high pressure mercury lamp	15-20CM	100	1-2
300Whigh pressure mercury lamp	10CM	6	3-5
125Whigh pressure mercury lamp	10CM	3	5-7
40W tube (LED)	10CM	<1	5-10

4.User instruction:

(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).The speed of printing depends on the type of 3D printer and the intensity of the laser/ LED light.

(5).If the resin come into contact with skin or eyes, rinse immediately with water or soap.

5.Post-processing procedure and note:

- (1) .The print model should be cleaned with absolute ethanol and can be cleaned with a low-frequency ultrasonic cleaner. If high-frequency and high-power ultrasonic cleaning is used for the model, it may cause certain damage to the surface of the model;
- (2) .Thoroughly blow the model dry with a hair dryer or the like;
- (3) .It is recommended to remove the support for model with supports first, and then post-cure treatment. If you remove the supports after it's been post-cured , it will easily cause damage to the contact surface of the support point;
- (4) .For some occasions where certain toughness is required, you can choose not to cure with UV lamp, because the surface of the HT3 material is very dry after being cleaned and dried. The printed parts should be kept in a cool dry place.

6.Packing

500g/bottle

7.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.

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