



eSUN LCD Resin Print Settings and Q&A

Resin Type	Bio-based resin for LCD	Standard Resin for LCD
Layer thickness(mm)	0.02-0.1	0.02-0.1
Bottom Exposure Time	30-50s	30-50s
Normal Exposure Time	6-10s	6-10s

Resin Type	LCD Castable resin for jewelry of LCD	LCD Castable resin for dental of LCD
Layer thickness(mm)	0.02-0.1	0.02-0.1
Bottom Exposure Time	30-50s	30-50s
Normal Exposure Time	6-10s	6-10s

The exposure time is positive correlation with layer thickness. The layer thickness corresponding to exposure time is 0.05mm. The exposure time changed proportionally with layer thickness. For example. The exposure time of 0.1mm's layer thickness is 12-20 seconds, while 0.02mm's layer thickness is 2-4 seconds.

The temperature will affect the efficiency of printing. Lower temperature needs longer exposure time. If temperature below 10°C. Please open interior air conditioner to maintain temperature, or adjust bottom exposure time to 100 seconds, and adjust normal exposure time to 50 seconds.

The model volume will affect the printing performance. If the model is too big and falls down during the printing. Please increase exposure time. The bottom exposure time can make a try in 40 seconds to 120 seconds, while normal exposure time make a try in 8 seconds to 24 seconds. The percent increased in bottom exposure time is same as normal exposure time.

This design attempts to make 3D printing resin parts easier to adhere to the build board.

Common Problems and Solutions of Resin Printing Failure

No model adheres in bottom plate, no curing on FEP film.	
Possible cause	Solution
A close distance between the platform and the FEP film	Readjust the platform to the level and make the distance between the platform and the screen reach two sheets of paper thickness.
A large distance between platform and FEP film	Method as above
The bottom exposure time is too long that leads to curing on FEP film	Reduce the bottom exposure time
The resin has stored in resin tank too long that leads to stratification.	Stir the resin evenly before printing
Scratches, dirt or breakage on the FEP film	Replace FEP film
Resin curing caused by external light source	Clean resin tank, add new resin and print in dark light

Prints not adhering in bottom plate and no curing on FEP film	
Possible cause	Solution
The printer's attenuated light intensity or LCD screen transmittance is reduced.	Replace printer light source and LCD screen
The FEP film broken,leakage of resin and curing on the screen.	Replace FEP film
Bottom exposure time too short.	Increase the bottom exposure time
Weak support strength of the model and models peels away.	Adjust model angle and increase support

Prints are missing or peeling away.	
Possible cause	Solution
The insufficient support results in print peels away.	Increase the support strength
Slicing software bugs, resulting in insufficient exposure time	Replace another slicing software
The model has error or broken surface, discontinuity.	Modify the model and remove the broken surface
The model is peeling away because of its large size during printing,, which makes it impossible to adhere to the bottom plate.	Increase the bottom exposure time and the normal exposure time in the range of 40-120s and 8-24s with the same proportion, respectively.

Inefficiency of printing	
Possible cause	Solution
Overexposure results in incorrect curing position.	Reduce normal exposure time.
Screen light leakage causes curing around the model	Replace the LCD screen.
Inadequate light intensity leads to incomplete curing and model collapse	Replace LCD screen and increase normal exposure time.
Position angle is not ideal enough and hard to print.	Adjust the angle to ensure more contact with the bottom plate