3D Printing Resin LEYI® HC-Crown

1. PRODUCT INFORMATION

Product Type : 3D Printing Resin

Product Name : Ceramic Crown

Product Model : HC-Crown

Product Color : BL / A1 / A2 / A3

Product Specifications : 1kg/bottle 0.5kg/bottle

Product Description: Light-curing resin for 3D printing high-strength ceramic crowns.

2. RESIN PROPERTY

Physical Properties Of Liquid Resin		
Viscosity@25℃	ISO 3219	7800-8300 mPa·s
Mechanical Properties of Cured Material		
Hardness	ISO 868	90-95 D
Flexural Strength	ISO 178	175-200 Mpa
Flexural Modulus	ISO 178	6500-7500 Mpa

3. PRINTING PARAMETER SUGGESTION

Parameter Type	Recommended Parameter	Recommended Parameter
Light intensity	Low light intensity	High light intensity
Layer Thickness	0.05 mm	0.05 mm
Bottom Layer Count	5	3
Exposure Time	2-4 s	2.8-3 s
Bottom Exposure Time	25 s	8 s
Printer Heating Temperature	35-45 ℃	35-45 ℃
Compatible Printer Light Source	385-405 nm	385-405 nm
Humidity	≤ 50%	≤ 50%

4. USAGE METHODS

4.1 Design: Based on the scanned data, design a model.

4.2 Slices: Select the appropriate parameters in the slicing software, Open the slicing software, import the model, and make sure the bottom of the model is fully in contact with the build plate.Slice and export the print file．If you are using LEYI's printer, you can select the HC-Crown parameter directly; if you are using a different printer, please follow the technician’s recommendations.

4.3 Printing: Shake the resin 1-2 minutes or ultrasonicate it for 15 minutes to ensure it is evenly mixed, then pour the resin into the resin tank. Select the slice file you just obtained

and start printing.

4.4 Remove: After finishing printing, clean the residual resin on the surface of the model. Use tools to carefully and slowly separate the model from the platform. Check and clean the solid residue of the printer platform and tank to avoid affecting the next printing.

4.5 Cleaning : Wipe the surface of the printed part with alcohol-moistened non-woven wipes.

4.6 Post-Curing: Place the model in the curing machine. High energy curing box UV for 7 minutes each side. Low energy curing box UV for 35 minutes each side.

5. USAGE PRECAUTIONS

5.1 It is recommended to use a 6-inch or smaller printer to save resin consumption.

5.2 Due to the high viscosity of the resin, it is recommended to heat the printer above 35°C to ensure the printing success rate.

5.3 Medium supports are recommended, with manual support added locally where needed.

5.4 Wipe off surface resin using alcohol-moistened non-woven wipes. Do not immerse the part in alcohol; otherwise, white powder may form on the model surface.

5.5 The energy level of the curing box affects the color and strength of ceramic crowns. A high-energy UV curing box delivers stronger crowns and ensures accurate color.

6. STORAGE & TRANSPORTATION

6.1 Resin unopened storage: the best storage temperature of the product is between 10-30℃, away from high temperature, direct sunlight, fire and corrosive substances.

6.2 Tighten the bottle cap in time after the resin is opened to avoid water, light and impurities entering the bottle.

6.3 The resin in the Tank of the printer should not be exposed to the air for a long time. It should be sealed with a film and stored away from light. You can also find a new light-proof bottle to store it. Do not pour it back into the unused resin.

6.4 Transportation: The product should be transported at a temperature range of 0 - 45℃. It is necessary to prevent deformation and leakage caused by prolonged heavy pressure, as well as to avoid direct sunlight and heat sources.