3D Printing Resin LEYI® DSP01

1. PRODUCT INFORMATION

Product Type : 3D Printing Resin

Product Name : Splint

Product Model : DSP01

Product Color : Transparent

Product Specifications : 1kg/bottle

Product Description : Light-curing resin for 3D printing various dental splints to stabilize bite relationships.

2. RESIN PROPERTY

Physical Properties Of Liquid Resin		Hard	Soft
Viscosity@25℃	ISO 3219	450-550 mPa·s	400-600 mPa·s
Mechanical Properties of Cured Material			
Hardness	ISO 868	82-85 D	65-75 D
Tensile Strength	ISO 527-2	36-48 Mpa	15-25 Mpa
Flexural Strength	ISO 178	40-50 Mpa	7-15 Mpa
Flexural Modulus	ISO 178	1400-1700 Mpa	300-500 Mpa
Elongation at Break	ISO 527-2	40-70 %	30-45 %
Notched Izod	ISO 180	20-30 J/m	40-60 J/m
HDT	ISO 75-2	44-55 ℃	40-50 ℃

3. PRINTING PARAMETER SUGGESTION

Parameter Type	Recommended Parameter
Layer Thickness	0.05 mm
Bottom Layer Count	3-7
Exposure Time	4.5-6 s
Bottom Exposure Time	20-30 s
Compatible Printer Light Source	385-405 nm
Printing Environment Temperature	25±2 ℃
Humidity	≤ 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 SP01 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 : Ultrasonicate in alcohol for 1.5 minutes, dry with compressed air, and clean with fresh alcohol for 1 minute.

4.6 Post-Curing: Place the model in the curing box. Cure in air at medium energy for 1 minute, then cure in water for 5 minutes.

5. USAGE PRECAUTIONS

5.1 Do not place the printed part directly in water for UV curing, as this will cause whitening. The part must first be UV-cured in air to ensure surface dryness.

5.2 The UV time should not be too long, excessive UV may cause the material to turn yellow.

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.