

# zDental Model U Stone

## Instruction for Use

### Product Discription:

zDental Model U Stone is a light-curing resin for producing dental models using 3D LCD printers utilizing wavelengths 405nm. This resin is intended to print diagnostic models and orthodontic models. This resin has profits of superior precision, excellent long-term dimensional stability of +/- 50um tolerance, high reliability, superior fit and easy-cleaning. zDental Model U Stone has excellent anti-sedimentation activity which makes handling easily.

### Intended Use:

Diagnostic models, die models, implant models, orthodontic models

### Color and Package:

Stone or light gray, 1 kg/bottle, or 5 kg/drum

### Contra-indications:

zDental Model U Stone contains (meth)acrylate and phosphine oxide which can cause allergic reactions at skin contact. In case of an allergic reaction, please contact a medical physician.

### Use and Safety Information:

1. Wear nitrile rubber gloves and a face mask when using this resin.
2. Keep the room ventilated.
3. Swallowing such as eating and drinking is forbidden in the printing place.
4. Avoid liquid or incompletely cured resin directly contact with skin. If contact with skin occurs, wipe resin away and wash thoroughly with cold water, use hand sanitizer or soap to assist in washing. If the users still feel uncomfortable, please see a doctor immediately.
5. If the user accidentally splashes the resin in the eyes, flush with plenty of water and seek medical attention immediately.
6. More safety details please refer MSDS of this resin.
7. The good using temperature for this resin is 21 - 25 °C . Keep the resin away from direct

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sunlight or any kind of UV light.

## Processing printed parts:

### Mixing resin before using:

In Bottle: Shake bottle vigorously prior to pouring into resin tank.

In resin tank: Stir resin with a soft spatula. Take care not to damage the film of the resin tank.

This step is necessary to avoid getting bad printing job caused by the (possible) pigment sediment from the bottom of the vessel.

After model is printed, it is recommended to restore the remaining resin into bottle and avoided leave the resin in the resin tank for a long time.

### Preparation:

Prepare a print job using a slicing software, such as Uniz Dental, Uniz Desktop or Uniz Maker, in depending with the UNIZ printer type. zDental Model U Stone can be printed in **layer thickness of 50µm or 75µm**. For more information, please refer to the Uniz Dental Software Guide ([www.uniz.com](http://www.uniz.com)).

### Printing:

Turn on the printer and ensure it well. Check and clean build platform, resin tank, LCD printing screen. Put the resin tank filled with mixed resin onto the LCD printing screen, and fix the tank well onto the screen. Upload the slicing file into printer through USB or WIFI, then start printing. For more information, refer to the printer instructions ([www.uniz.com](http://www.uniz.com)).

## Post-processing:

### Detaching printed parts:

Once the printing process has ended, use a soft spatula to remove the resin residue on the build platform into resin tank. Then, it is recommended to utilize U Detach, a professional machine for removing models, to detach the printed objects from the build platform.

### Washing:

Wash parts in IPA bath with at least 98% purity. Best results are achieved when using a pre and post wash. U Wash ultrasonic cleaner is recommended for washing parts.

- Pre-wash bath: 1 ~ 1.5 min. After using, if the IPA density increases 5%, alternate clean IPA for this pre-washing step.

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- Post-wash bath: 1 ~ 1.5 min, always use clean IPA for each post-washing step.

If necessary, a dedicated soft brush can be used to help for removing residual resin.

**Drying:**

Use compressed air to parts. If residual resin remains, repeat the “washing-drying” steps. Ensure parts to dry thoroughly before post-curing.

**Post-Curing:**

U Cure, a post-curing device from UNIZ, is recommended to cure printing parts. Both the occlusal side and the other side are needed to be post-cured.

- One side: 2 minute, level 3, U Cure
- The Other side: 2 minute, level 3, U Cure

The LED light intensity for post curing of a printing model is recommended from 700 to 900 mW/cm<sup>2</sup> per side in one minute.

If printed part has supports, cure the non-supported side of printed part at first, then remove supports by same tools, finally cure the supported side. Before using, the support stub needs to be grinded and polished smoothly and be cleaned thoroughly.

## Printing Parts Preserving:

For getting excellent long- term precision stability, printed models are recommended to keep in a room temperature of  $25\pm 2^{\circ}\text{C}$ .

## Storage:

Stored in dark place where avoid direct sunlight or any kind of UV light, environment temperature is recommended around 15 to 28°C, and environment humidity is less than 45%RH.

Do not use resin which exceeds the expiry date.

## Disposal:

Disposal of liquid resin waste in accordance with local regulations.