

1- INDENTED USE

Dental Model LT Resin is a dental resin developed to work in harmony with DLP devices and silicone tanks. It has been developed as an alternative to the traditional intraoral plaster molding method. Dental Model LT Resin compatible with either 385 and 405nm 3D printer devices.

2- CONTRAINDICATIONS

Power Resins Dental Model LT Resin should not be used for any purpose other than just dental model applications. Any deviation from this instruction for use may adversely affect the chemical and physical quality of the 3D product. In case of allergic reaction, please consult a medical doctor.

3- SAFETY INSTRUCTIONS

To ensure optimum further processing, please carefully read the information contained in the instructions for use. Misuse and failure to observe information can have a detrimental effect on quality. Nitrile gloves, goggles and a jacket should be worn as a means of protection when working with resin.

The safety instructions and precautions outlined in the Dental Model LT resin operating instructions and safety data sheet will apply to the removal of liquid resin and uncured resin from the model.

A dust mask should also be worn due to possible dust formation in post-press processes.

4- SIDE EFFECTS AND PRECAUTIONS

For liquid form;

Inhalation

Irritates the respiratory organs. High concentrations can lead to irritation of the respiratory passages, dizziness, headaches and loss of consciousness.

Skin contact

Sensitisation or irritation are possible from contact with the skin. Repeated and / or extended skin contact can cause inflammations.

Eye contact

High air concentrations can lead to eye irritations. If on eye wash with plenty of water. Remove your contact lenses. If skin irritation or rash occurs: Get medical advise/attention

Swallowing

Low oral toxicity; ingestion can, however, lead to irritation of the gastrointestinal tract.

Power Resins Dental Model LT Resin,

Hazardous Component: Phenylbis (2,4,6-trimethylbenzoyl)-phosphine oxide

Color	Light Pink
Viscosity	200 – 225 mPa.s
Density	1,1 gr/cm ³

Warning!**In liquid form;**

H315 – Causes skin irritation.

H317 – May cause allergic skin reactions

H319 – Causes serious eye irritation.

H411 – Toxic to aquatic life with long-lasting effects.

H412 – Harmful to aquatic life with long-lasting effects.

Safety instructions as per MSDS

- Avoid inhaling aerosol
 - Wear protective gloves / eye protection
 - Call a doctor / physician if you feel unwell
 - If skin irritation/rash occurs: get medical advice / attention
 - If eye irritation persists: get medical advice / attention
 - Dispose of contents / container as per local and national regulations
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5- GENERAL INFORMATION ON HANDLINGDelivery

Power Resins Model Resin is supplied in light-tight, sealed bottles.

Please check the following points on receipt of the goods:

- Integrity of the bottle / pack
- Quantity
- Shipping documents and designation

Storage Conditions

Keep the resin bottle range of 22-27 °C / 71-80 °F. The minimum shelf life date printed on the product must be observed. Store this product in tightly closed containers in a properly

vented storage area under dry conditions away from sparks and open flames. Avoid the material to direct sunlight. Shelf life is 6 months from production. Perfect processing cannot be guaranteed if materials which have exceeded their minimum shelf life date are used. For additional information, please see Material Safety Data Sheet.

6- PROCESSING

Processing

Power Resins Dental Model LT Resin is designed to work with all LCD and DLP 3D printers. See the Printer Settings section on powerresins.com for optimization databases.

Cleaning

- a. Allow the model to clean for 3 minutes in compartment 1 of the MEDIFIVE washer containing ethanol solution (96%). After the process is complete, dry the model with a spray air gun.
- b. Allow the model washed and dried in compartment 1 to be cleaned in compartment 2 of the MEDIFIVE washer containing ethanol solution (96%) for 3 minutes. After the process is complete, dry the model with a spray air gun.

Do not exceed the 6-minute total cleaning procedure as this may cause deterioration of printed objects.

Hint: Resin residues can also be removed using a brush moistened with ethanol (96%).

Finishing

The completely cleaned print objects must be post-cured to attain the required material properties.

7- POST-CURING

Caution: Post-curing outside of the recommended settings can lead to suboptimal mechanical properties. Post-cure only in accordance with official recommendations from Power Resins for the best possible results.

Recommended post-curing

2x2000 flash on Otoflash G-171 curing device.

30 minutes in a MEDIFIVE curing room at 3rd-degree light intensity.

8- MECHANICAL PROPERTIES

The mechanical values to be obtained when the recommended post processes are applied are given in the table below.

Wavelength	405 nm
Flexural strength	>90 MPa
Flexural modulus	2640 MPa
Shore Hardness D	>70

9- SUPPORTING DOCUMENTS

MSDS of Power Resins Dental Model LT Resin

10- LABEL SYMBOLS

