

SG Resin Instructions for Use (IFU)

Find out how to safely and effectively use SG resin for your projects.

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SG Resin Instructions for Use

1- Indented Use

Surgical guide resin is monomer based a dental application resin developed for compatibility with LCD and DLP 3D-printers. Resin compatible with either 385 and 405nm 3D printer devices.

Power Resins SG Resin is biocompatible (Class I) and CE certified.

2- Contraindications

Power Resins Surgical Guide Resin should not be used for any purpose other than dental surgical guides only. 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 Surgical Guide 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. Surgical Guide resin cannot be used as auxiliary equipment in food and beverage applications.

4- Side Effects and Precautions

In 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

Sensitization or irritation is 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 advice/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-trimethyl benzoyl)-phosphine oxide

| | |
|-----------|-----------------------|
| Color | Transparent |
| Viscosity | 520 – 540 mPa.s |
| Density | 1.1 g/cm ³ |

Warning!

In liquid form;

H317 - May cause allergic skin reaction.

H361f - Suspected of damaging fertility.

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

5- General Information on Handling

Delivery

Power Resins Denture Resin is supplied in light-tight, sealed bottles. Please check the following points on receipt of the goods:

- Integrity of the bottle/pack
- Quantity
- Color
- 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 1 year 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 Sg Resin is designed to work with all LCD and DLP 3D printers.

[Surgical Guide Workflow](#)

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 and biocompatibility.

7- Post-Curing

Caution: Post-curing outside of the recommended settings can lead to suboptimal mechanical and biocompatibility 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

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

| | |
|-------------------|----------|
| Wavelength | 405 nm |
| Flexural strength | >100 MPa |
| Flexural modulus | 2800 MPa |
| Shore Hardness D | >80 |

8- Supporting Documents

[MSDS of Power Resins SG Resin](#)

9- Biocompatibility

Power Resins SG Resin is non-cytotoxic, not a sensitizer, non-irritating, and complies with ISO 10993.

10- Label Symbols

| | | | |
|--|---|--|---|
| | Manufacturer | | CE symbol of UDEM notified body |
| | Manufacturer date 107=Country of manufacturer | | Medical device |
| | Reference code | | Caution |
| | Batch code | | Consult electronic instructions for use |
| | Expiration date | | Do not reuse |
| | Color of the product | | Non-sterile |
| | Keep away from sunlight | | Keep dry |
| | Maximum humidity 65% | | Store between 5-25°C |

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