

NYTE 3D



NYTE3D Cast+Press

Usage instructions

NYTE3D GmbH
Hans-Heinrich-Warmke-Str. 12
29227 Celler / Germany
I +49 5141 966969-0
M info@nyte3d.de

**Interested in other types of
3D dental resins? Check our
website to find out more!**
www.nyte3d.de

General information

Indication

NYTE3D Cast+Press is a light-cured, ash-free burnout resin for 3D printing. Suitable for cast metal and pressed ceramic, printable using DLP and MSLA/LCD. NYTE3D Cast+Press is compatible with 3D printers using a 385 nm or 405 nm wavelength.

Contraindication

The NYTE3D Cast+Press material is not classified as a medical device. The material is therefore only suitable for cast metal and pressed ceramic. NYTE3D accepts no liability for any loss or injury resulting from an incorrect use of the resin.

Storage

The material must be stored in a tightly sealed container in a dark place, at a temperature between 18°C and 28°C. Do not expose the liquid or the container to sunlight and keep exposure to daylight as short as possible to avoid the liquid starting to cure prematurely.

Disposal

Dispose of liquid material, material treated with isopropanol or partially cured material in accordance with local, regional or national/international environmental regulations.

Hazards

Check and follow the corresponding safety data sheet when using NYTE3D Cast+Press.

Hazard statements: H302 Harmful if swallowed, H315 Causes skin irritation, H317 May cause an allergic skin reaction, H373 May cause damage to organs through prolonged or repeated exposure, H412 Harmful to aquatic life with long lasting effects

Precautionary statements: P101 If medical advice is needed, have product container or label at hand, P102 Keep out of reach of children, P280 Wear suitable protective clothing, gloves and eye/face protection, P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, P310 Immediately call a POISON CENTER/ doctor, P501 Dispose of waste according to applicable legislation

Batch number and use-by date

These details are printed on the packaging. Please state the product batch number if you wish to submit a complaint. Do not use the product after the use-by date has expired.

Usage information

2

Preparation

- ✓ We recommend wearing personal protective equipment (e.g. gloves, safety goggles) when handling / working with the product.
- ✓ Check to confirm your 3D printer is in proper working order and that there is no soiling or dirt on the build plate, resin tank or lighting unit. Check and follow the instruction manual for the 3D printer you are using.
- ✓ Keeping the resin bottle closed, shake it thoroughly before use (at least 2 minutes) or have NYTE3D Cast+Press mixed automatically by a roller / tilting stirring device.
- ✓ Then pour NYTE3D Cast+Press carefully into the 3D printer's resin tank.
- ✓ If there is any NYTE3D Cast+Press already present in the resin tank, mix this thoroughly with a suitable plastic or silicone spatula for at least 2 minutes. Take care to avoid splashing material over the edge of the tank.
- ✓ Working temperature: 18 °C to 28 °C.
- ✓ We do not recommend using the 3D printer to heat the material.

3D-printing

- ✓ Layer thicknesses for NYTE3D Cast+Press can range from 0.025 mm to 0.15 mm (recommended layer thickness: 0.05 mm).
- ✓ Select the product-specific parameter settings for NYTE3D Cast+Press for your printing process.
- ❗ **Tip for slicing software:** for clasp dentures, sufficient supports must be provided at each clasp arm and angle.
- ✓ When the 3D printing process is complete, leave the printed objects hanging from the build plate in your printer for 5 minutes to let them drip dry.
- ✓ Then use a suitable tool to remove the printed objects from the build plate.
- ✓ Take care not to expose the printed objects to direct sunlight before they have received their final treatment.

Cleaning

- ✓ Clean the printed objects with isopropanol (min. 90 %) in a suitable container. (Check and follow the safety and disposal instructions from the isopropanol manufacturer.)
- ✓ Do not leave the printed objects in the isopropanol bath for longer than 4 to 5 minutes.

Drying

- ✓ Dry the objects carefully with compressed air at low pressure or let the objects air-dry for at least 7 minutes.

Final light curing (do not skip this step!)

- ✓ 2x 400 flashes in Otofash G171
- ✓ 2x 6 minutes in an industry-standard cure / wash system

Options for improving printing results

- ❗ **Avoiding cracks in the investment:**
 - Use a specialised investment material for 3D printing with high gas permeability (use a metal casting ring if needed).
 - Heat the investment slowly, using conventional heat. For pre-heating times, please consult the usage instructions for the investment material used.
- ❗ **More detailed casting result:**
 - This can be achieved by briefly blowing out (compressed air) the casting mould before casting. This ensures that no soot particles will be incorporated into the metal cast afterwards. **Important!** The centre of the casting mould must then be brought back to the correct final casting temperature.