

QUICK GUIDE

Storage

- ▶ **FREEPRINT® splint** is to be stored dry (at 15°C to 28°C) and protected from light. Minimal influence of light can already induce polymerisation. Always keep container tightly sealed, immediately close the container carefully after each use.

Processing

- ▶ Processing temperature is 23 °C, ± 2 °C.
- ▶ The properties of the final product depend, among other things, on post-processing. Correct post-exposure is important for biocompatibility. Therefore it must be ensured that the light unit is in an orderly condition and that the moulds are completely cured (observe process description below).
- ▶ Biocompatibility is only guaranteed with complete polymerisation.
- ▶ Minimum material thickness for the design is 1.5 mm
- ▶ Maximum curing depth* at direct post-exposure: clear: 3,5 mm
*In case of large objects and exposure on both sides, the material thickness can be up to 7 mm (Example FREEPRINT® splint – with a curing depth of 3,5 mm).
- ▶ Do not use heat-based methods for disinfection or sterilisation. This could possibly deform the workpiece.

Manufacturing

Data preparation and fabrication of the support structure according to the instructions of the CAD software manufacturer.

Construction process

Generation of a Print Job complying with machine and material parameters.

Post-processing

After raising the platform, a drip time of approx. 10 minutes is recommended. If possible, post-processing should start immediately following the construction process.

Pre-cleaning

Remove construction components from the platform and clean in a separate vessel with isopropyl alcohol (purity ≥ 98%) for 3 minutes in an ultrasonic bath.

Cleaning

Thoroughly clean the openings, cavities and gap areas - if necessary with compressed air - and, if applicable, remove the construction components carefully from the support structure.

Main cleaning process

The main cleaning process is performed in a separate vessel with fresh isopropyl alcohol (purity ≥ 98%) for 3 minutes in an ultrasonic bath. Prior to drying, check the openings and additional bore holes for residues.

Drying

Heat the construction components for 30 min. in an oven to approx. 40 °C to remove the solvent residues from the cleaning process.

Post-exposure

Post-exposure is performed with a xenon photoflash unit Otofash G171 with 2 x 2000 flashes under inert gas conditions (nitrogen), rotate components in between.

Surface processing

Polish the surface with pumice and a small lab brush by applying soft pressure. Do not polish the inner part; this may damage the fit.