detax

Materials that matter

detax

DETAX Processing Manual

FREEPRINT® crown

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1) Overview Freeprint Crown

dx

- Permanent crown, inlay, onlay, veneer

  Do not fall below the minimum thicknesses - even after grinding.

- Long-term bridge

  Longterm bridge up to 3 units containing one pontic.

  Do not fall below the minimum connector size of at least 16 mm²

  For maximum stability, the connector should be as large as possible. We recommend oval connectors

- Denture tooth

- Crown posterior and anterior

  occlusal / incisal 1.5 mm

  circular: 1.5 mm

  cervical: 1 mm

- Inlay

  occlusal: 1.5 mm

- Onlay

  occlusal: 1.5 mm

- Veneer

  vestibular: 1 mm

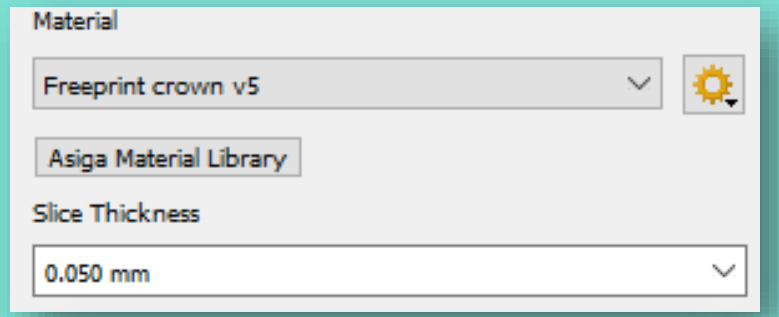
- Longterm bridge

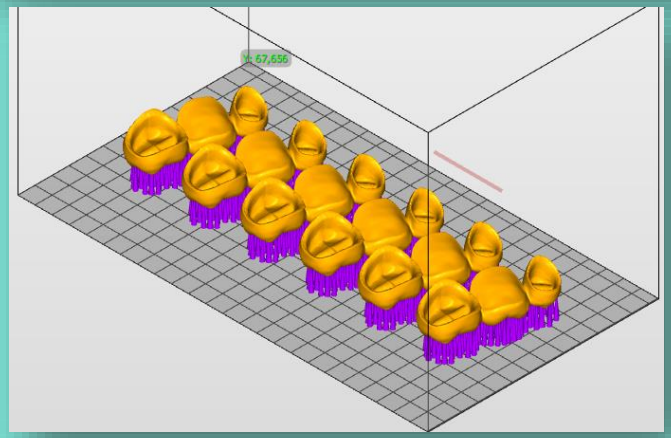
  connector size of at least 16 mm²

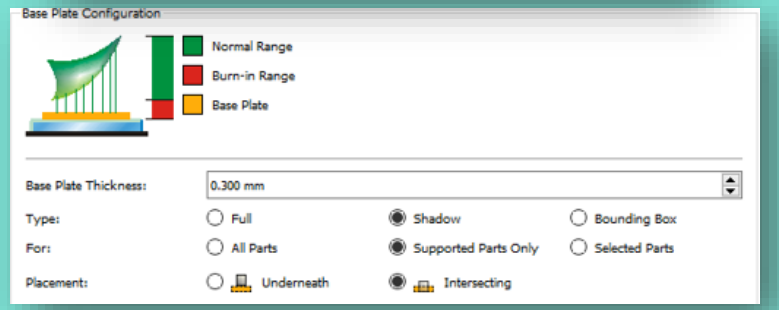
2) Printing preparation

- Generate the printing file
- use the appropriate slicing software from Asiga (Composer) and
- use only the ini file that Detax sends. Slice thickness is always 0.050 mm.
- We recommend a ''shadow'' base plate with a thickness of
- 0.3 mm, to adhere the material perfectly to the build platform.

Asiga Max UV used as sample







3) 3D Printing

Print

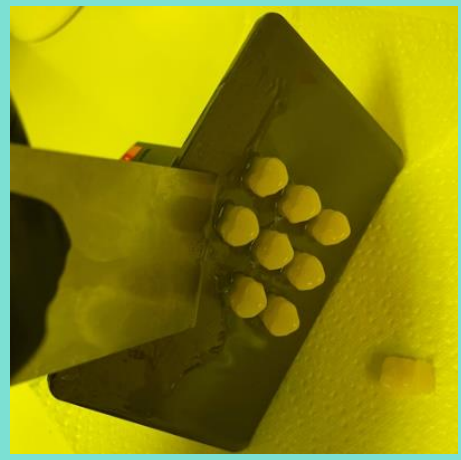
- Make sure, that the bottle of FREEPRINT® crown must be homogenized on a bottle roller for at least 2 hour before initial use.
- Make sure that the glass plate and material tray are clean.
- Make sure that there is enough material is in the tray.
- Start the print job.

Asiga Max UV used as sample

4) Post process

Cleaning

1) Carefully remove the printed objects from the build platform with a suitable spatula.

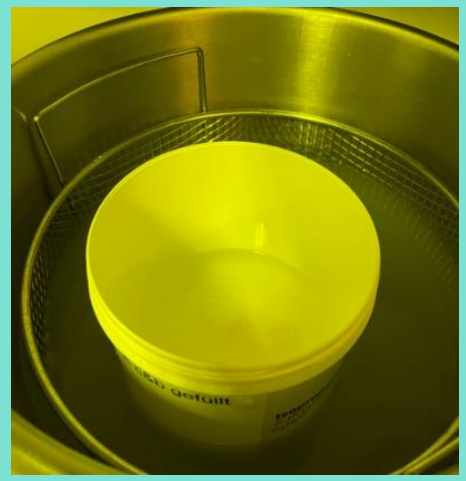


2) Before washing with isopropyl alcohol (purity ≥ 98 %), use compressed air (1.8–2 bar) to remove the excess material.

3) Wash objects in an ultrasonic device using a separate vessel (A) with isopropyl alcohol (purity ≥ 98 %).

Attention!!!

- FREEPRINT® Crowns initial wash <u>cycle is only 1 minute in the ultrasonic device!!!</u>
- Do not pour isopropyl alcohol directly into the ultrasonic bath.



4) Post process

Cleaning

4) After the initial washing cycle, carefully remove the supports.

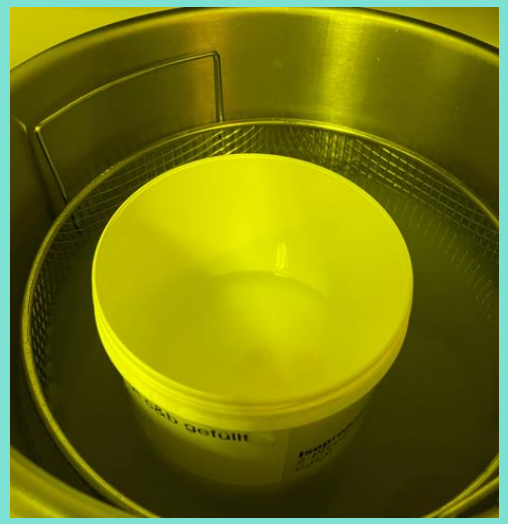
5) Use compressed air again (1.8–2 bar) to remove support residues and excess material from the object.

5) Second wash cycle: 1 minute in the ultrasonic device in a separate vessel (B), using fresh isopropyl alcohol (purity ≥ 98 %).

6) Immediately after the wash cycle, blow the objects completely dry with compressed air.

Attention!!!

- In order to get the mechanical properties specified by Detax, it is essential that the printed objects are not washed for more than 2 minutes in total.
- <u>After washing, the objects must dry for 30 minutes at room temperature.</u>



4) Post process

Post curing

Finishing the printed object – light curing

- Post-exposure is performed with a xenon flash unit (e.g., Otoflash G171) with 2 x 2000 flashes under inert gas conditions (nitrogen), rotate components between cycles.
- Insure, that you have a clean and the correct tray (360 N2) in use.
- Be sure that the Otoflash G 171 still has enough light power.

5) Finishing

Finishing the printed object – grinding

- For grinding the support residues, we recommend a rubber polisher. (for example: Identoflex Polishers Super Acrylic light blue)

Finish the printed object – polishing

- Polish the surface mechanically. Pre-polish by means of rotating brushes and pre-polishing paste, high gloss by means of buffing wheels and high shine polishing paste for resins.

Bonding of the restoration

- The appliances can be cemented by means of common permanent cements, e.g. Variolink Esthetic DC from Ivoclar or RelyX Unicem2 from 3M Espe. Follow manufacturers IFUs.

Bonding the printed denture teeth to the printed denture base.

- Follow the DETAX Processing manual.

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Thank you for your attention

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