



Case
Study

Temporary Crowns & Bridges

W2P

Temporary Crowns & Bridges

Application: Prosthetic Restoration

Crowns and bridges are used for prosthetic reconstruction purposes in order to replace damaged or missing teeth. Temporary crowns and bridges are put in place for a short period of time while the final full crowns and bridges are being made.

Requirements

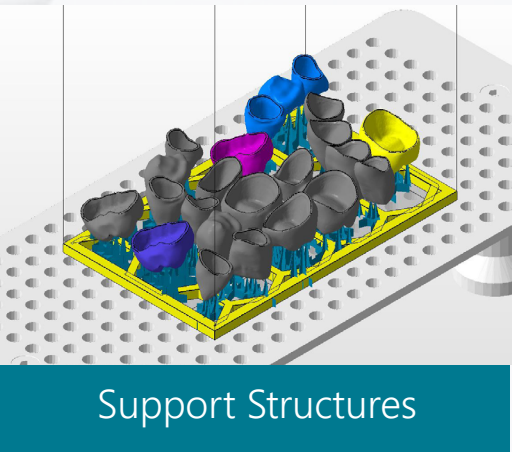
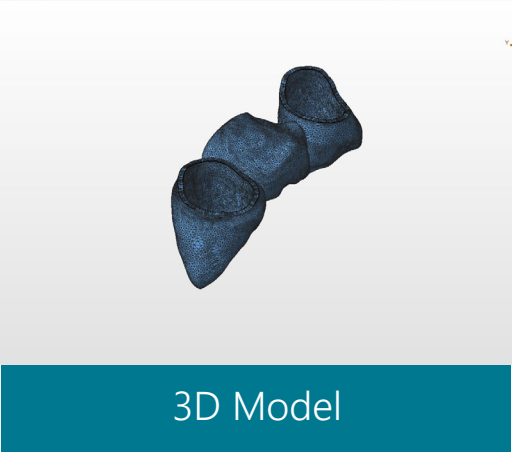
Material: Medical device class IIa
Production Method: High precision, exact fit

Recommended Material

SolFlex Prov A1/A2/A3

Digital Workflow

Preparation: Prior to the printing process, the crowns and bridges have to be prepared for printing. A 3D printing software helps to place the model on the building platform. Also, support structures have to be added.



Printing Process: In the next step, the prepared files are being processed by the printer. In this specific case the temporary crowns and bridges were 3D printed under the following conditions:

3D printer:	SolFlex 150 PLUS
Layer thickness:	50 µm
Printing time:	39 min.
Resin:	SolFlex Prov A2
Number of printed objects:	11
Resin use:	8.85 g
Total resin use (incl. support structures):	13.85 g
Total resin costs:	€ 4.71

Depending on the size of the 3D printer's building platform, a different number of crowns and bridges can be 3D printed.

Number of crowns and bridges that fit on the building platform:

SolFlex 650:	66
SolFlex 363:	42
SolFlex 350:	33
SolFlex 170:	22
SolFlex 150:	11

Post-Processing: The 3D printed crowns and bridges are post-cured in a UV light box, cleaned and the support structures have to be removed. For a finish, the crowns and bridges are polished to get a perfect surface.

