



Case
Study

Dental Impression Tray

W2P

Dental Impression Tray

Application: Dental Impressions

A dental impression is the most important link between a dentist and a dental laboratory, since it provides an exact reproduction of the oral conditions. In the first step, the dentist creates an impression of the dentition using the impression tray and an impression material. Subsequently, the negative of the dental impression is filled with dental plaster in order to get the working model that serves as the basis for further dental work.

Requirements

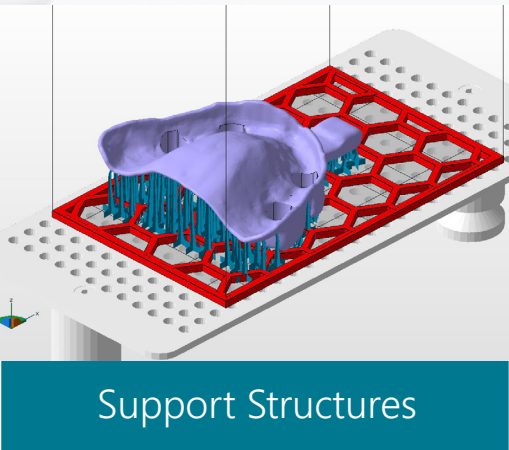
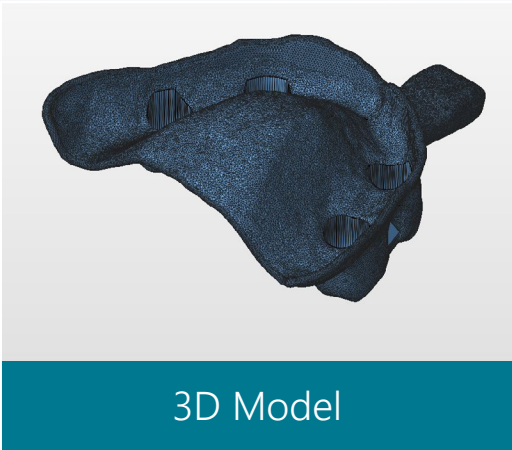
Material: Medical device class I
Production Method: quick and easy production

Recommended Material

SolFlex Tray

Digital Workflow

Preparation: Prior to the printing process, the impression tray has 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 dental impression tray was 3D printed under the following conditions:

3D printer:	SolFlex 170
Layer thickness:	100 µm
Printing time:	26 min.
Resin:	SolFlex Tray
Number of printed objects:	1
Resin use:	8 g
Total resin use (incl. support structures):	15 g
Total resin costs:	€ 4.35

Depending on the size of the 3D printer's building platform, a different number of dental impression trays can be 3D printed.

Number of impression trays that fit on the building platform:

SolFlex 650:	6
SolFlex 363:	4
SolFlex 350:	3
SolFlex 170:	1
SolFlex 150:	1

Post-Processing: The 3D printed dental impression tray is post-cured in a UV light box, cleaned and the support structures have to be removed.

