

Implants made easy

Creating an implant retained overdenture using Primotec's Metacon light-cured wax system

By Joachim Mosch, CDT, and Andreas Hoffmann, CDT. Information provided by Primotec USA.

Based on the concept of converting wax into acrylic, the Metacon light-cured wax system includes Metawax modeling wax for crown and bridge techniques, implants, and pressable ceramic cases as well as preformed Metaform wax patterns for partial denture castings and combination cases without a refractory model (**Fig. A**).

The material is handled like conventional modelling wax or can be kneaded. When the waxup is finished, it is light-cured in one of the Metalight light curing units (**Fig. B**), converting the wax to acrylic, while burning out cleanly and completely with no expansion in the investment ring. Once polymerized, all light-cured structures can be trimmed before investing, using carbide burs or rubber wheels.

The Metacon system simplifies the creation of implant structures as well as all other dental modellations and offers substantial material and time-saving benefits. The light-cured wax can be used for any kind of fixed, fixed/removable, or removable implant cases.

Following are steps for creating an implant supported fixed/removable ceramic bridge with galvano or Captek gold copings over implant abutments (**Fig. C**).

01 Prior to actual implant abutment placement, create a denture teeth set-up to determine all functional and esthetic aspects of the final restoration together with the patient (**Fig. D**).

02 Once tooth position, shape, length, and color are agreed upon, create a silicon matrix over the setup to protect the tooth position and to make it reproducible (**Fig. E**).

03 Knead one or two Metacon light-curable wax 6-mm rods until the material exhibits a clay-like consistency and press into the silicon matrix.

04 Press the matrix on the model with the abutments and Galvano or Captek copings in place. Note: Depending on the case, more Metacon wax can be added from lingual. The modelling sequence is done without heating up the wax and consequently without any expansion/shrinkage problems.



Metacon

Features

- Handles like conventional modelling wax; can be trimmed or milled before investing
- Becomes acrylic after light curing
- No clinical shrinkage for exceptional fit
- Suitable for casting and scanning
- Preformed patterns (clasps, stipple sheets, retentions, bars) available
- All wax ups (also for partials) done on master model

Primotec USA
www.primogroup.net

25 Sylvan Road South
Suite N
Westport, CT 06880
866-643-3129

Select XXX



Fig. A The wax material is available in patterns for crown and bridge or denture techniques.



Fig. B The Metalight Mini, Trend, and Classic light-curing units provide the correct light wave length needed without any heat.

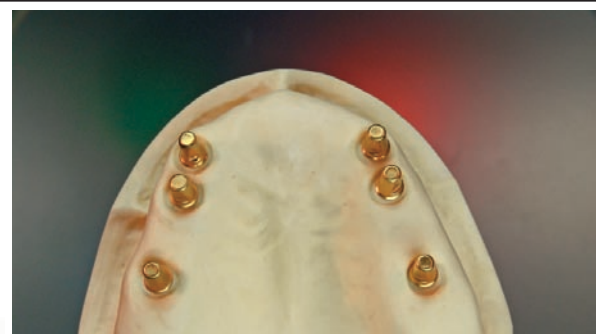


Fig. C Galvano or Captek gold copings over the implant abutments allow the patient to remove the bridge for cleaning purposes.

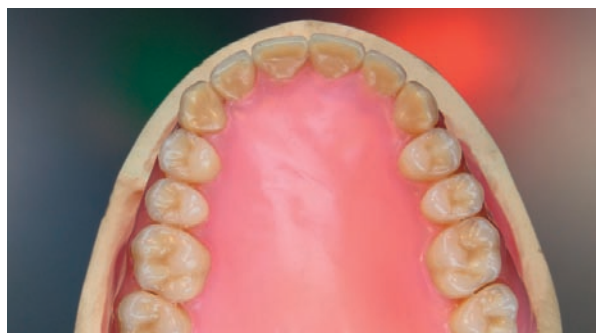


Fig. D A denture tooth set up is made to define the desired final result together with the patient.



Fig. E The silicon matrix over the set up protects the result agreed upon and makes it reproducible.



Fig. F The set up in polymerized Metacon wax/acrylic.



Fig. G Pilot grooves define how much material to trim back to create an even space for the porcelain.

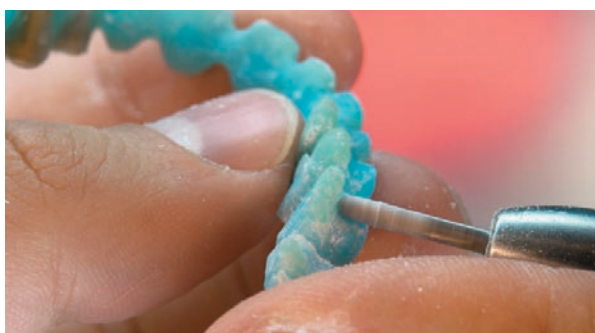


Fig. H Polymerized Metacon wax can easily be trimmed with carbide burs or rubber wheels.

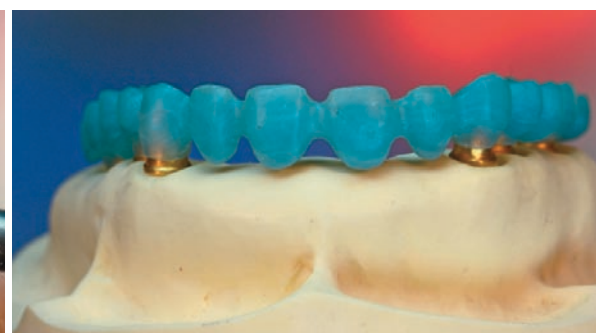


Fig. I The final shape of the understructure shows no sharp edges and minimized tooth form.

05 Solidify the Metacon wax with cold spray before removing the silicon matrix and light curing.

06 After curing, the wax becomes acrylic and reproduces the denture set up with the desired tooth position, shape, and length with the Galvano or Captek copings in the right position over the implant abutments (**Fig. F**).

07 Trim back the acrylic to create space for the porcelain. *Note:* Since it is ideal to achieve an even porcelain thickness over the bridge, cut grooves with defined depth (**Fig. G**).

08 Trim according to the pilot grooves with carbide burs (**Fig. H**).

09 After trimming, verify the shape of the understructure by placing the silicon matrix on the model to assure sufficient space for the porcelain (**Fig. I**).

10 Sprue the bridge with the primoclick spruing system (**Fig. J**). *Note:* The different primoclick acrylic components simply plug into one another. .

11 Before investing, remove the Galvano or Captek gold copings from the light-cured wax modellation. Investing and casting are done like with any other wax, whereas Metacon

requires about 10% more investment material expansion. The sprue diameter as well as the length of the primoclick sprues facilitate placement of the casting object in the ring (**Fig. K**).

12 Cut the sprues after casting. The result is an exceptionally fitting implant understructure (**Fig. L**). **lab**

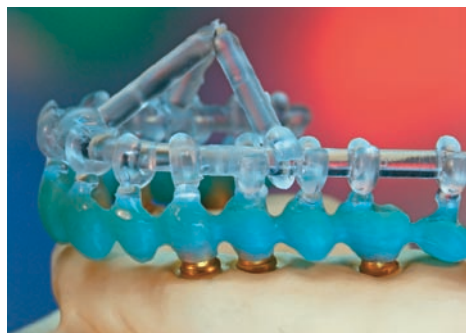


Fig. J The Primoclick spruing system components are designed to snap into position and adjusted if necessary.

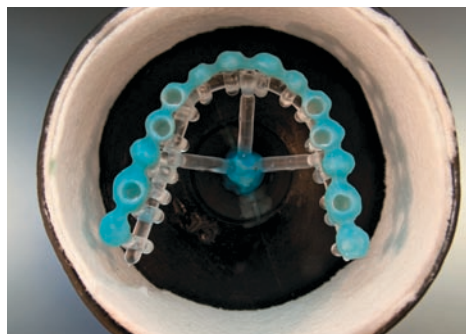


Fig. K After adjusting the object in the casting ring, the Primoclick components are simply fixed with cyanoacrylate or wax.



Fig. L Little metal trimming is needed beyond sprue removal.

COMPANY
 JUNIOR

See us at the XXX Meeting, Booth XXX.

Use XXX on card or at www.dlpmagazine.com

For sales visit, circle XXX on card.