

## Implant-based all-ceramic restoration using Impregum™ Penta™ Polyether Impression Material – open tray (pick-up) technique

Dr. Gunnar Reich, Munich, Germany

### Initial situation

Single implant in region 15 to replace missing tooth. Patient arrived for impression taking appointment with trans-gingival healing cap. Surrounding soft tissue shows excellent healthy conditions (Fig. 1).

### Treatment

After removal of the healing cap, the impression post (Straumann® implant system) for the open tray (pick-up) technique was positioned (Fig. 2).

For impression taking Impregum™ Penta™ Polyether Impression Material (3M Oral Care) was selected. For the monophasic technique the same material is used for tray loading and syringing the impression post. While the assistant was filling the tray, the dentist syringed the material thoroughly with the elastomer syringe (Fig. 3).

The impression was taken using a 3M™ ESPE™ Impression Tray. The perforation was made according to the individual situation (Fig. 4).

The accurate impression with the fixed impression post (Fig. 5) was then sent to the dental lab. Prior to pouring the model, the laboratory implant analog was exactly mounted (Fig. 6).

For highest esthetics, a custom-made zirconia abutment (Lava™ Plus, 3M Oral Care) (Fig. 7) was delivered by the lab. On top, an individualized monolithic Lava Plus Zirconia crown (3M Oral Care) was placed (Fig. 8).



Fig. 3: Impregum™ Penta™ Polyether Impression Material syringed around impression post (Straumann®) using elastomer syringe (step 1 in monophasic technique).



Fig. 4: Impression taking using Impregum™ Penta™ Polyether Impression Material and an individualized, perforated 3M™ ESPE™ Impression Tray (step 2 in monophasic technique).

### Tips for making great implant impressions.

- Support tray until impression material is sufficiently set. Stabilize the tray after seating, avoid any movements.
- Use enough material and keep the tip permanently immersed in the material during syringing to avoid air entrapment and voids.
- **Pick-up technique:** Widen implant windows in the tray to avoid tray-abutment contact.

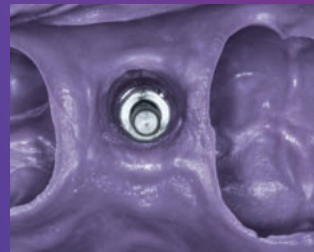


Fig. 5: Impression with fixed impression post to be sent to dental lab.

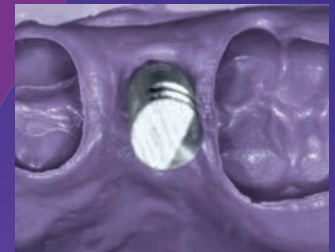


Fig. 6: Impression with mounted laboratory implant analog.



Fig. 1: Initial situation with healing cap.



Fig. 2: Open tray impression post mounted.



Fig. 7: Custom-made Lava™ Zirconia abutment (3M Oral Care).



Fig. 8: Final placement of Lava™ Plus Zirconia crown (3M Oral Care).



3M™ ESPE™ Impression Trays can easily be customized which makes them ideally suited for making implant impressions.

### Open tray (pick-up) technique.

In this technique, the direct transfer coping gets “picked up” and remains in the set impression upon removal from the mouth. Once the impression has set, the screw holding the coping on the implant is accessed through the hole above/below the implant in the open tray and unscrewed to allow removal of the impression from the mouth. Once outside of the mouth, the implant analogue is connected to the transfer coping prior to pouring the stone model.

# Implant-based all-ceramic restoration using Impregum™ Penta™ Polyether Impression Material – closed tray (snap-on) technique

Dr. Gunnar Reich, Munich, Germany

## Initial situation

Single implant in region 15 to replace missing tooth. Patient arrived for impression taking appointment with trans-gingival healing cap. Surrounding soft tissue shows excellent healthy conditions (Fig. 1).

## Treatment

After removal of the healing cap, the corresponding impression post and the impression cap (CAMLOG® implant system) for the closed tray (snap-on) technique were mounted. For impression taking Impregum™ Penta™ Polyether Impression Material (3M Oral Care) was chosen since it offers dimensional accuracy and a secure impression cap fixation. The impression was taken using a regular stock tray. For the monophasic technique the same material is used for tray loading and syringing the impression post. While the assistant was filling the tray, the dentist syringed the material thoroughly with the elastomer syringe (Figs. 2 and 3).

The accurate impression with the fixed impression cap (Fig. 4) was then sent to the dental lab.

For highest esthetics, a veneered Lava™ Plus all-ceramic crown was placed on an individualized Lava Plus Zirconia abutment (both 3M Oral Care) (Fig. 5).



Fig. 1: Initial situation with healing cap (CAMLOG®).

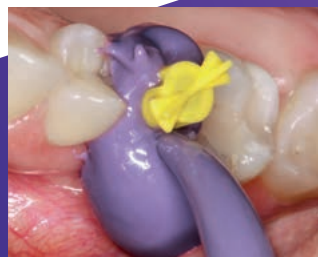


Fig. 2: Impregum™ Penta™ Polyether Material syringed around impression post using elastomer syringe (step 1 in monophasic technique).



Fig. 3: Impregum™ Penta™ Polyether Material syringed around impression post.

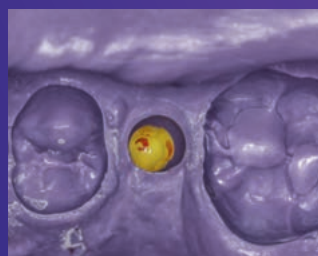


Fig. 4: Impression with fixed impression cap to be sent to dental lab.



Fig. 5: Veneered Lava™ Plus all-ceramic crown (3M Oral Care) placed on an individualized Lava™ Plus Zirconia abutment (3M Oral Care).

### Tips for making great implant impressions.

- Support tray until impression material is sufficiently set. Stabilize the tray after seating, avoid any movements.
- Use enough material and keep the tip permanently immersed in the material during syringing to avoid air entrapment and voids.
- **Snap-on technique:** Try-in the tray prior to making impressions and ensure proper size to avoid coping-tray contact.



3M™ ESPE™ Impression Trays can easily be customized which makes them ideally suited for making implant impressions.

### Closed tray (snap-on) technique.

In this technique, the direct coping “snaps-on” to the top of the implant abutment in the mouth. Once the impression has set, the coping becomes embedded in the impression and is pulled off of the implant abutment when the set impression is removed from the mouth. Once outside of the mouth, the implant analogue is connected to the transfer coping prior to pouring the stone model.



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