

Premiotemp Multi PMMA by Primotec for Producing Excellent Temporary Restorations.

Attractive Temporary Restorations

by

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When did we stop producing quality temporary restorations that incorporate our technical skills and knowledge and achieve excellent aesthetic results? Sending patients home with low-quality temporary restorations with a laissez-faire attitude, not caring if the patient returns, is a huge mistake. Bad temporary restorations not only hinder the treatment process, but also demotivates the patient. It is very rewarding to heighten the patient's enthusiasm about his final restoration during the provisional phase through the use of an aesthetically designed and skillful temporary restoration.



Fig. 1 — Here an edentulous mandible is prepared for an implant prosthetic. First, an individual impression must be taken in preparation for the model fabrication. A precise implant model is the basis for achieving prosthetic restoration success.



Fig. 2 — The implant model served as an aesthetic and functional set-up that was verified, modified and approved during the try-in.

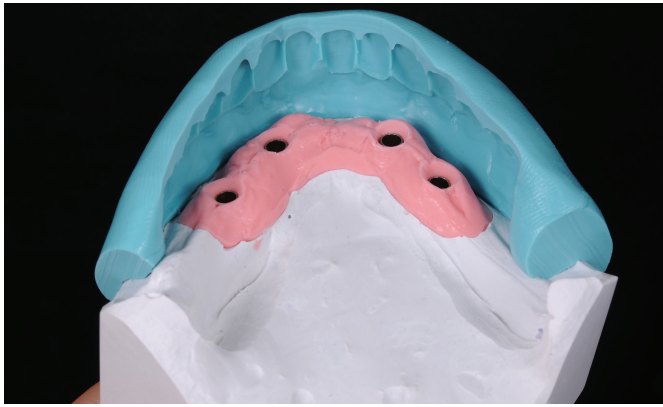


Fig. 3 — The silicone indexes of the set-up (approved by the patient and dentist) serve as a helpful design and verification tool. The close-up shows the vestibular index and dorsal view.

A well-designed temporary restoration is meant to heighten the patient's anticipation for the final restoration result, and it must combine therapeutic as well as prosthetic qualities. In this progress report, Cristian Petri demonstrates how to fabricate a high-quality temporary restoration with the easy-to-mill Premiotemp Multi PMMA temporary restoration material by Primotec. This is very exciting!

Why are high-quality temporary restorations so important?

Prior to purchasing a new car, a potential customer will visit a car dealership to get a realistic idea of what to expect of the car model he/she might be purchasing. Adding different options to meet individual requirements is always exciting and it is the car salesman's responsibility to explain and show these options.

Tempting or trying to "seduce" a customer by trying to sell him/her a model that does not at all meet the customer's needs or requirements is wrong. I am a strong believer in always offering my patients a realistic and educated picture of what they can expect from a final restoration. High-quality skillfully produced temporary restorations are, therefore, extremely important in prosthetic restorative dentistry. They must be comfortable and aesthetically pleasing for the patient. It is, therefore, crucial to choose the right material because, even though it is called "temporary" restoration, it must meet the patient's prosthetic, therapeutic and aesthetic requirements.

A temporary restoration should:

- Support and shape the gingiva.
- Have a protective function, "bandage."
- Offer a realistic idea of the final restoration.
- Allow testing of the shape, functionality and shade.
- Be a communication and consultation tool.
- Prepare and motivate the patient for the final restoration.

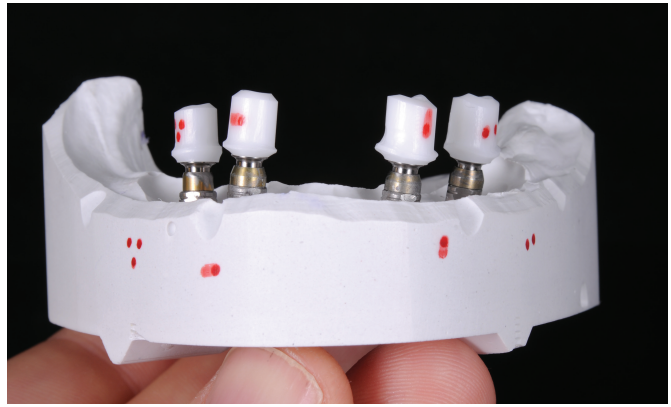


Fig. 4 — To secure the removable implant prosthesis, primary telescopes made of zirconium oxide were produced. The advantage of the CAD/CAM-technique offers many designing tools.

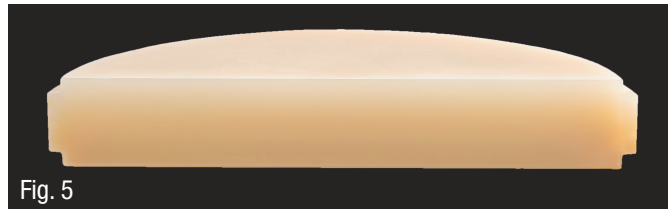


Fig. 5



Fig. 6



Fig. 7

Fig. 5 to 7 — For the temporary restoration, we used the new Premiotemp Multi PMMA milling discs by Primotec. These discs enable us to modify individually the translucency in the incisal area by adjusting the vertical position of the temporary restoration during nesting in the CAM software. More milling off the top of the disc creates more translucent results and vice versa.

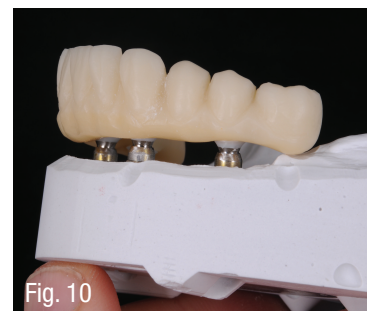


Fig. 8 to 10 — This is what a temporary restoration made of Premiotemp Multi PMMA material looks like. Already, at this stage, the smooth colour transition towards the incisal area is noticeable. This material meets aesthetic, functional, stability and biocompatibility requirements.

Based on the above list of requirements, it is equally important that the material meets certain standards.

Material for temporary restorations must:

- Be biocompatible, homogenous and hypoallergenic.
- Provide stability.
- Be easy to handle and customizable.
- Be cost-and time efficient in production.

Multilayered Premiotemp Multi PMMA milling blanks by Primotec meet the above-mentioned requirements. The industrially fabricated discs were developed especially for dental CAD/CAM-systems. This ultra-aesthetic material combines 5 plus layers of colors into one disc, giving the restoration the most natural look possible. Temporary restorations made with Premiotemp Multi PMMA discs

combine strength and aesthetics beautifully and possess excellent processing properties. The material can be used for cemented and screw-retained temporary restorations.

Uses:

- Long-term temporary restorations.
- Short-term temporary restorations.
- Temporary crowns, bridges and veneers.
- Prototypes and mock-ups for screw-retained implant restorations.
- Screw-retained temporary abutments.
- Individually milled interim denture teeth.

The promise: Temporary restoration aesthetics redefined



Fig. 11 and 12 — For the finishing step, the milled material can be sealed with a special PMMA-glaze.



Fig. 13 to 15 — Applying gingiva-coloured composite enhances the red aesthetic and accentuating with paint colours gives the restoration a natural look. The temporary restoration serves, therefore, as a pre-design for the final restoration.

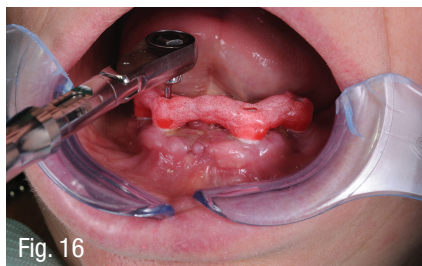


Fig. 16



Fig. 17

Fig. 16 and 17 — Prior to the try-in, the zirconium oxide primary telescopes are screw-retained. A special transfer key made of Primopattern LC Gel ensures accurate transfer of all components.

Premiotemp Multi PMMA dental material enhances any temporary restoration with the most natural look possible. In images 1 to 18 Cristian Petri demonstrates how to produce a temporary restoration for the mandible successfully and points out what must be considered during the process. The Premiotemp Multi PMMA material with its excellent properties helps to fulfil the prosthetic and aesthetic functions for the patient during the provisional phase.

Advantages

The upper layer of the Premiotemp Multi PMMA disc resembles natural tooth enamel in terms of shade and translucency. The top of the disc is lighter and very translucent (incisal) and gradually gets darker towards the bottom (cervical) without separation lines between layers (keyword: Natural tooth enamel). The material manages



Fig. 18 — The temporary restoration made of Premiotemp Multi PMMA material in the patient's mouth. A high-quality temporary restoration like this facilitates the verification of function and aesthetic during the provisional phase, provides a secure feeling for the patient in terms of the treatment progress and allows the patient to anticipate the final restoration -- a win-win situation.

The above material characteristics offer the following advantages:

- Easy milling and polishing;
- High flexural strength (> 130 MPa); and
- High biocompatibility.

The Premiotemp PMMA-discs are available in the Vita colour shades A1 to D4 as the Multi or Mono (monochromatic Premiotemp Mono) variant for all

List of products:

| NAME | CHARACTERISTICS | SPECS |
|------------------|--|---|
| Premiotemp Multi | <ul style="list-style-type: none"> • Impressive aesthetics • More than 5 layers of colour • No separation line between layers • Natural fluorescence | Diameters: 98 mm with 2 levels or 95mm (ZZ-shape) Thickness: 16, 20, 25 or 30 mm Shades: A1 to D4 plus special bleach shade |
| Premiotemp Mono | <ul style="list-style-type: none"> • Excellent combination of colour and translucency • Easy to mill • Highly biocompatible | Diameter: 98 mm with 2 or 95mm (ZZ-shape) Thickness: 16, 20, 25 or 30 mm Shades: A1 to D4 plus special shade A0 |
| Premiotemp Clear | <ul style="list-style-type: none"> • Glossy surface after milling • Transparent Flexural strength > 130 MPa | Diameters: 98 mm with 2 levels or 95mm (ZZ-shape) Thickness: 16 or 20 mm Shade: transparent |

to combine colour, translucency and natural fluorescence beautifully. Premiotemp discs are made of high quality PMMA (Polymethylmethacrylate) material with special cross-linkers and inorganic components added to optimize the lattice structure of the material. This, in combination with a unique polymerization molding technology, creates the ideal material properties of the Premiotemp discs. The discs offer, therefore, excellent mechanical qualities with ideal translucency. Certified as Class 2A medical product according to EC Directive 93/42/EEC.

common milling machines. A transparent disc, Premiotemp Clear, is also available.

Special shades, such as Premiotemp MULTI Bleach and Premiotemp MONO A0, have also been added.

Acknowledgement

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