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Initial experience in using the new onetime perfect "A" silicone

The impression is a decisive criteria for all the ensuing stages in the laboratory and up to placing the precisely fitting restoration. As it can be used for evaluating the precision of the following fabrication stages, it has to be highly precise. For daily use in dental practices, a high quality impression material must also be fast and straightforward to process.

The objective is to eliminate as many errors as possible and allow the dentist to choose between any of the techniques and indications.

Materials and methods

The new **onetime perfect** additioncuring silicone impression material was developed specifically for the one-step "sandwich" and putty-wash impression techniques. As this material only includes kneadable heavy bodied and light bodied materials, there is no need to select the materials from a large assortment, which would be time-consuming and complex. Once the correct tray has been selected and coated with adhesive, the heavy bodied material is kneaded by hand (mixing ratio - base paste : catalyst = 1:1) (Caution: Latex gloves may impede curing!), placed in the tray and a groove pressed into it to accommodate the teeth. The groove is then coated with light bodied material from a cartridge (Figures 1 and 2).



Figure 1: Preparations for a resin-bonded bridge on teeth 21-23

Intraoral application

The impression material is either applied in the sulcus with intraoral tips and mixing tips fitted to the cartridge pistol or with the single-use impression syringes included with the system (Figure 3). Syringe the material around the preparation in one single procedure, beginning in the sulcus - to prevent air bubbles becoming entrapped, ensure that the syringe tip remains completely immersed in the material. Do not overlook the occlusal surfaces. In cases with subgingival preparations, blow on the impression material gently with an air syringe to force it into the sulcus. Retraction solution applied prior to impression taking must be removed fully to prevent the setting reaction

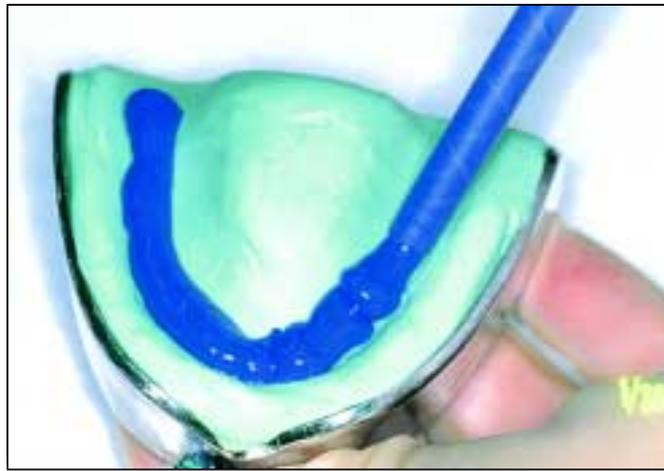


Figure 2.: Loading the tray



Figure 3: Syringing the impression material around the preparations

being impeded. Once the light bodied material has been applied in the patient's mouth, the loaded tray is also inserted into the mouth and gentle pressure applied for 3 - 4 seconds. While the material is setting fully, the tray should be held in position by the same person and without exerting pressure (Figure 4).

Setting kinetics

Adequate working time (approx. 1 min. 30 secs.) is available prior to inserting the impression tray into the patient's



Figure 4: Inserting the tray

mouth. During the next 2 minutes in the patient's mouth, the material sets fully and the impression can be removed (Figure 5). The setting reaction is best checked with a probe. Once no more permanent deformation can be determined with the blunt side of the probe, the impression can be removed from the mouth. To prevent causing permanent distortion, the tray should be removed parallel to the axes of the prepared teeth. The impres-

sion is then rinsed under running water and disinfected in 2% glutar aldehyde solution according to the manufacturer's instructions.

Casting the model

To allow for adequate elastic recovery, after removing the impression from the patient's mouth, wait at least 15 minutes before casting the model. According to the manufacturer, if the impression is stored correctly it remains dimensionally stable for at least 14 days. Type III and IV dental stones as well as standard model resins can be used for casting the model.

Conclusion

onetime perfect exhibits a short working time. As only 3 mins. 30 secs. are required between beginning mixing and removing the impression from the mouth, this material is indicated for taking impressions for short-span bridge-work and full/partial crowns. Patients definitely consider the brief intraoral setting time and neutral taste positive. This material exhibits adequate strength, is dimensionally stable and reproduces details accurately as well as being easy to handle and compatible with commonly used model materials. It therefore meets all the requirements expected of a modern impression material and can be recommended for use with patients.

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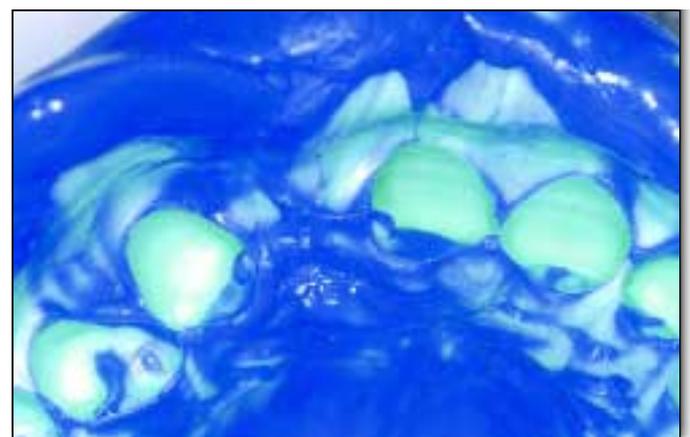


Figure 5: Taking the impression