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VisiClear Veneer Partials

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Kris has been active in the dental Laboratory business for more than 20 years. Kris worked for his father, owner and founder of Northern Virginia Dental Lab. This experience provided Kris with invaluable expertise in performing dental laboratory procedures. Kris attended J. Sergeant Reynolds College, and in 1994 graduated Summa Cum Laude with an Associate Degree in Applied Science with a major in Dental Laboratory Technology. After graduation, he became manager of the Northern Virginia Dental Lab.

Recent advances in thermoplastic materials have broadened the number of situations in dentistry in which they can be used to great advantage. Thanks to the improved physical properties of these new thermoplastic materials, we, as dental professionals, can be more creative with our designs: VisiClear Veneer Partials is a good example of what is now possible. Fabricated with VisiClear thermoplastic material from Myerson, Veneer Partials are similar to Essex bridges but are more durable.

In the following case study, a patient sought treatment to replace a single crown with an implant. The doctor wanted a provisional appliance that would be cosmetic, stable, and supported by adjacent dentition. A Veneer Partial was the ideal solution for this patient because it is tooth supported and will take the pressure off the ridge and implant sight. I chose VisiClear from Myerson to make the Veneer Partial because VisiClear has several great advantages over other materials in the market: it is biocompatible, resilient over time, and absorbs very low moisture (making it less prone to staining than nylon materials). VisiClear's semi-translucent appearance blends very naturally with underlying natural teeth and gingiva.

The following are the steps for fabricating a Veneer Partial appliance:

- Duplicate the final cast in a yellow buff or die stone. (Figure 1) The model you use to inject will be destroyed after injection during divesting, so a duplicate cast is essential.



Figure 1



Figure 2

- Apply a thin coat of Myerson's Thermoplastic Model Separator to the cast. (Figure 2) Myerson's Thermoplastic Model Separator creates a hard plastic coating that will not dry out or evaporate. You can apply the separator material to your model and not work on it for days without any problems. The separator will not only keep the stone from sticking to the appliance, but it will also create a very smooth surface on the underside of the appliance. This smooth surface will help keep surface stains from developing on the finished appliance in the future.
- After the separator hardens for a few minutes, you can start to fit your acrylic tooth. Before you seal the tooth to the model, drill your diatorics in the tooth. It is preferable to place one or two large diatorics as opposed to many smaller ones. When placing the diatorics, you will need to drill a small secondary hole from the lingual or interproximal. This secondary hole will allow air to escape when the material is

injected, permitting the VisiClear to completely fill the diatoric and secure the tooth onto the appliance.

- Next set the tooth on the model and seal it to the model with wax. (figure 3)



Figure 3



Figure 4

- Once the tooth is set in the proper position, place wax over the adjacent teeth. (Figure 4) The thickness of the wax should be about 1mm. (The polishing and finishing process will reduce the thickness in the area surrounding the tooth down to about .5mm.)



Figure 5



Figure 6

- After waxing, the case is invested in a FlexPress flask using 1 to 2 sprues. It is then injected using VisiClear. (Figure 5)
- Once the case has cooled, it is divested and thoroughly cleaned to make sure all plaster is removed.
- The fabricated appliance is finished using carbide burs and rubber wheels to contour the case. (Figure 6) Special care should be taken during the finishing process to avoid perforating the appliance as it may be difficult and time consuming to repair.



Figure 7



Figure 8

- Adjust the case so it fits the model snugly and check the occlusion on the articulator. (Figure 7) There will be times when the undercuts on the abutment teeth will be too great but because the material is clear,

Quiz (Circle your answers)



Figure 9



Figure 10

you can end the appliance short of the gingival and the appliance will still be cosmetic in appearance.

- There will be areas in the occlusal portion of the appliance where the contacting cusps must be cleared of material so the bite will not be opened by the appliance. (Figure 8)
- Once the case fits on the model, a high shine can be easily attained using Myerson's polishing kit. (Figure 9) The polishing kit comes with 6 components: yellow discs, red discs, blue discs, green discs, a 3 inch muslin buff, and a Fine Scratch Remover. Use the yellow discs as you would use your pumice buff to remove the major scratches. Spending more time on this step will minimize the time required for the next steps. Once the surface is scratch-free (a dull satin finish), go over the appliance with the red, blue, and green discs (in that order) very quickly. As you advance through the discs, you will see a more brilliant shine develop. Lastly, coat the appliance with the Fine Scratch Remover and use the 3-inch muslin buff to achieve a very beautiful, high shine. The Fine Scratch Remover is a paste, so it acts as a polish as well as a lubricant. Thermoplastic appliances can melt with friction so the Fine Scratch Remover acts as a lubricant and allows you to polish using the muslin buff at a high rate of speed.
- The finished case is placed on the final cast. (Figure 10) Notice the cusp tip contacts showing through the holes placed in the appliance where the hyper occlusion of the VisiClear material was cleared. The Myerson VisiClear allows the shade of the natural tooth to come through making the appliance invisible in the mouth.

It should be noted that VisiClear Veneer Partials are not suitable for every patient. In the rare case that the patient has extremely deep undercuts, the appliance would be difficult to insert and remove. Conversely, if there are minimal undercuts, there may be a problem with retention (although this can be solved by extending the material further onto the palate for an upper or further onto the lingual tissue for a lower.) If the patient has larger than normal teeth with a high lip line that exposes the entire tooth to more light, a VisiClear veneer unilateral can make the adjacent natural teeth seem even larger. If there are large gaps between the teeth, interproximal shadowing may occur.

For the many situations in which VisiClear Veneer Partials are indicated, the patients are well satisfied because the appliances are easy to insert and remove, simple to maintain, and more esthetic and comfortable than the traditional flipper. For dental professionals, these appliances can be a very profitable and marketable service to provide.

- 1) **Veneer Partials is identical to an Essex bridge.**
 - a) True
 - b) False
- 2) **What are the advantages of VisiClear from Myerson?**
 - a) VisiClear is biocompatible
 - b) VisiClear is resilient over time
 - c) VisiClear absorbs very low moisture
 - d) All of the above
- 3) **You can apply Myerson's Thermoplastic Model Separator to your model and not work on it for days without any problems.**
 - a) True
 - b) False
- 4) **When is it important to you drill the diatorics in the tooth?**
 - a) After you seal the tooth to the model
 - b) Before you seal the tooth to the model
 - c) After you wax the model
 - d) You do not need to drill diatorics in the tooth
- 5) **It is preferable to place one or two large diatorics as opposed to many smaller ones.**
 - a) True
 - b) False
- 6) **What thickness should the wax be over the adjacent teeth?**
 - a) .5 mm
 - b) 1 mm
 - c) 1.5 mm
 - d) 2 mm
- 7) **In which order should you use the Myerson Polishing Kit?**
 - a) Yellow discs, red discs, blue discs, green discs, 3 inch muslin buff
 - b) Red discs, blue discs, yellow discs, green discs, 3 inch muslin buff
 - c) Blue discs, Red discs, yellow discs, green discs, 3 inch muslin buff
 - d) Green discs, yellow discs, red discs, blue discs, 3 inch muslin buff
- 8) **Myerson's Fine Scratch Remover is a paste, and acts as a polish as well as a lubricant.**
 - a) True
 - b) False
- 9) **VisiClear Veneer Partials is contraindicated under these cases:**
 - a) Extremely deep undercuts
 - b) Minimal undercuts
 - c) Very large adjacent teeth
 - d) All of the above
- 10) **VisiClear Veneer Partials are easy to insert and remove, simple to maintain, and more esthetic and comfortable than the traditional flipper.**
 - a) True
 - b) False

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