



SHEPPERSON EDUCATION  
WAIHEKE ISLAND

A-Z CLINICAL TIPS

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# INJECTABLE COMPOSITE RESIN VENEERS: MODEL PREPARATION TIPS



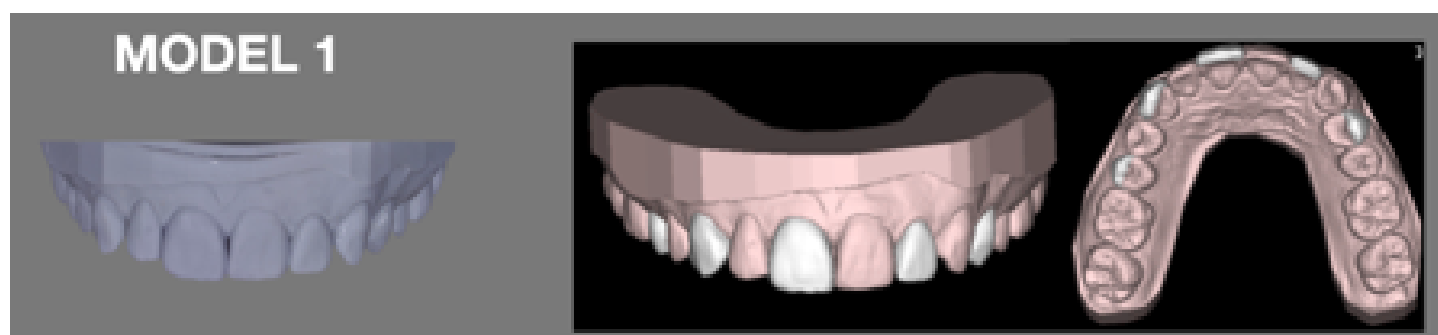
Digital dentistry has opened the door to efficient and cost-effective construction of composite veneers using flowable composite. The technique is suitable for conservative additive aesthetic alterations to teeth, confined to facial surface in cases without occlusal risk factors.

This article outlines some clinical tips for construction of the clear silicone matrices used to create injected veneers.

Minor aesthetic improvements in younger patients can be achieved with minimal or no tooth preparation, using a technique referred to as an injectable veneer. The procedure uses a flowable composite, inside a custom-made clear index built over 3D printed models. Natural teeth are lightly roughened, etched and bonded in preparation for seating and injection of composite resin veneers.

The advantage of digital planning, over conventional wax up, is that the laboratory can remove alternate digital designs and 3D print models that reflect 2 scenarios:

- A.** Model has alternating untouched teeth and digital wax up.
- B.** Model has full contour design on all teeth.



**Fig 1.**

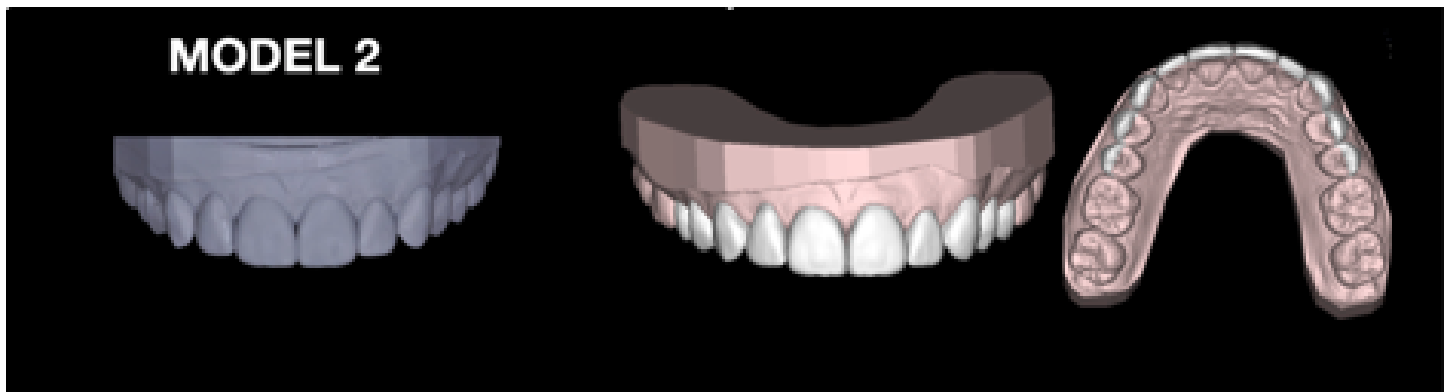
**Model A (Fig 1)** allows multiple teeth to be etched, bonded and restored in one procedure. Teeth that are not being restored in this step are isolated with PTFE (Teflon) tape (**Fig 2**) to avoid contamination of the intact enamel

surface and enable separation and polishing of the first set of veneers.



**Fig 2.**

**Model B (Fig 3)** is used to complete bonding of the remaining teeth, creating a full set of composite veneers.



**Fig 3.**

#### **Steps for Tray Construction:**

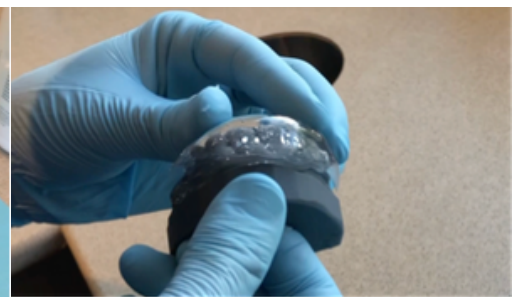
- Siltech laboratory putty is formed over the model creating a uniform thickness spacer. **(Fig 4)** The spacer is used to create room for a clear silicone PVS material (Transil, Ivoclar Vivadent or Exaclear by GC).
- A sheet of clear tray material is formed in a vacuum forming machine over the spacer. **(Fig 5).**
- Once trimmed, the spacer is removed and clear PVS material injected over the teeth and inside the tray.
- Seat the tray over the model, allowing excess PVS to flow over the edges **(Fig 6).**
- Trim once set.



**Fig 4.**



**Fig 5.**



**Fig 6.**



## Tips For Tooth Identification

The two models can be quite similar, especially when the digital addition is creating subtle enhancements.

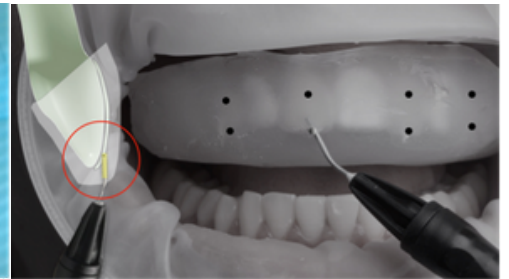
1. Identify the two models A and B.
2. Mark teeth to be veneered on Model A with a black Sharpie pen. Repeat on Model B. **(Fig 7)**
3. Seat the clear silicone tray over each of the marked models.
4. Create duplicate Sharpie marks on the outer surface of the tray.
5. Identify the position for the injection holes and mark with a Sharpie **(Fig 8)**.
6. These should be slightly labial and apical to the incisal edge as shown in **(Fig 9)**.
7. Repeat with Model B.



**Fig 7.**



**Fig 8.**



**Fig 9.**



**Before Treatment**



**After Treatment**



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