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State-of-the-Art Prefabricated Composite Veneers

New laser-sintered options are esthetic, affordable, and minimally invasive

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Porcelain veneers have been used for several decades now in the treatment of discolored, fractured, worn, or slightly misaligned teeth. When done correctly with a well-designed treatment plan, the results are stunning.

However, porcelain veneers have some drawbacks—the biggest of which is cost to the patient. Many patients who wish to have a gorgeous smile simply cannot afford the cost of quality porcelain veneers. From the clinician's standpoint, the temporization process has always presented challenges, not to mention the large laboratory bill that accompanies the case.

Direct resin veneers are more affordable for many patients, but they present their own set of challenges. They are very technique sensitive and time consuming to do correctly. In addition, the final polish just doesn't compare to porcelain.

A New Solution

The Edelweiss™ prefabricated composite veneer system by Ultradent Products Inc. (www.ultradent.com) solves many of these issues. Edelweiss is the world's only prefabricated laser-sintered composite veneer system. The vitrified facial layer of the Edelweiss veneer approaches the esthetics and polish of glazed porcelain, and the composite used to bond the veneer to the tooth gives the veneer its color. Characterizations can even be built into the veneer by using composited with different colors and opacities.

The results are excellent, and the advantages include reduced cost (approximately 50% to 70% less than porcelain); reduced chair time (accomplished in one appointment); no need for temporaries; use of a minimally invasive technique; and highly esthetic results. The Edelweiss kit comes as a whole system; however, each component can also be purchased individually—including the veneers.

The veneers come in three different sizes for the maxillary anterior teeth (small, medium, and large), whereas the lower veneers are available in two sizes (small and medium). The veneers can be shaped and resized chairside to ensure a very close fit. Because they are bonded on with composite, the result is a homogenous blend of like materials so that the margins are undetectable.

Case Presentation

A 25-year-old man presented with maxillary central incisors No. 8 and No. 9 that had been rebonded multiple times due to a childhood accident ([Figure 1](#) and [Figure 2](#)). Mild caries were present under the old bonding. The patient was given several treatment options and chose Edelweiss veneers. He stated that he did so because the treatment could be finished in one appointment and did not require wearing temporaries. Cost was also a factor for this patient; he said he was relieved to know there was a treatment that offered the esthetics of porcelain at a more economically feasible price point.

The treatment area was anesthetized with 4% Septocaine® 1:100,000 (Septodont, www.septodontusa.com). A shade match was taken with the Edelweiss shade tab ([Figure 3](#)). Next, the size was chosen using the Edelweiss size-matching guide, and an initial try-in was performed ([Figure 4](#)).

The veneers were placed one tooth at a time. The treatment sequence begins with preparing the tooth and adjusting the veneer as necessary to closely adapt to the unprepped or minimally prepped tooth ([Figure 5](#)). A total-etch method was used to etch the tooth with 35% phosphoric acid. The bonding adhesive is then placed; Peak® Universal Bond (Ultradent Products Inc.) was used in this case.

The veneer is placed with the appropriate shade of composite and then light cured. After trimming the excess composite and a final cure, the margins were trimmed and polished (Note: the highly glazed laser-sintered facial surface of the Edelweiss veneer does not require any polishing).

This protocol was followed starting with No. 8. Once No. 8 was taken to completion, No. 9 was prepped, fitted, bonded, and polished. Occlusion and protrusive guidance were verified and the patient was dismissed. The entire appointment took approximately 1 hour and the patient was extremely pleased with the final result. The patient returned for 2-week post-treatment follow-up for final photographs ([Figure 6](#)).

Conclusion

In many cases, prefabricated composite veneers offer the patient an affordable treatment option. They are minimally invasive, predictable, relatively easy to place, and provide an excellent esthetic result. The Edelweiss veneers offer an esthetic result that approaches porcelain and provides dentists with another treatment option where indicated.

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