



Resin cement

Features

- High bond strength
- Low wear rates
- Exceptional polishability
- Amine-free for outstanding color stability
- Invisible shade blend
- Exceptional clean-up
- High translucency
- Simple value shading system



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Take control

Variolink Veneer offers predictable, esthetic results that puts clinicians in command of their anterior restorations.

By Dr. Todd Meeks, Fort Wayne, Ind.

Ensuring the esthetic predictability of indirect all-ceramic restorations is predicated on the clinician's choice of cementation alternatives. It is also dependent upon adhesive protocol, which simultaneously influences how easily restorations can be seated. To this end, manufacturers have introduced and enhanced products that enable greater esthetic and procedural handling when placing restorations.

One product useful for the cementation of esthetic veneers is **Variolink® Veneer** (Ivoclar Vivadent), a microfilled resin cement developed for anterior restorations. It offers clinicians shade flexibility, easy clean-up, optimal high-gloss polishability, and low wear when cementing esthetic cases.

This resin cement features a logical "value" shading sequence that simplifies cement selection. Its shades are based on the true influences of the cement on the esthetics of the final restoration—such as the "value" or relative brightness—rather than on the "color" of the cement. It delivers the benefits of polymerization on demand and the security of immediate high

bond strengths. Clinicians can be assured of predictable, long-term clinical success.

Available in seven light-cured, amine-free "value" shades, this cement features a light-cure initiator system that ensures long-term color stability. The +3 (whiter, brighter) and -3 (more intense chroma) shades create slightly more intensity than the original cement shades. Therefore, clinicians can alter the effects seen in the final restorations. The system also includes complementary try-in pastes that match the cement for accurate previews.

Variolink Veneer is indicated for light-cured all-ceramic restorations. First the clinician must use a bonding agent on the preparation and silanate. Then, the clinician needs only to load the restorations, seat, and tack and wave with a curing light. Excess cement can be easily peeled away before complete polymerization. The following case demonstrates the clinical protocol associated with seating all-ceramic anterior veneer restorations using this adhesive resin cement.

Case presentation

A 20-year-old female presented with a class II division II malocclusion, but she was not interested in pursuing orthodontic treatment. Her main concern was the lingually displaced central incisors and the discolored composite restoration on tooth No. 8 (Fig. 1). She also wanted her central incisors brought into proper alignment. She agreed to treatment involving porcelain veneers on teeth Nos. 8 and 9 (IPS Empress) and gingivoplasty from teeth Nos. 6 through 11 using the Odyssey diode laser.

The laser recontoured the gingival tissue of teeth Nos. 6 through 11 to create more balanced symmetry, as well as to match the smile line (Figs. 2 and 3). Teeth Nos. 8 and 9 were minimally prepared in enamel for the proposed restorations (Fig. 4), after which the appropriate dentin shade was determined. Impressions were taken, provisional restorations were placed, and photographs were taken to assist the laboratory in determining the form of the final restorations. The patient was dismissed and asked to return in one week to verify soft tissue healing (Fig. 5) and obtain the proper enamel shades.

Case description

1. The provisional restorations were removed and the preparations were cleaned and dried.
2. Using the Variolink Veneer transparent try-in gel, the restorations were tried in to ensure complete seating and desired interproximal



Fig. 1 Close-up preoperative retracted view showing the discolored composite restoration on tooth No. 8 and the reverse incisal edge wear on tooth No. 9.



Fig. 2 A diode laser (Odyssey) was used to recontour the gingival tissues to match the smile line.



Fig. 3 After gingival recontouring, note the more balanced gingival symmetry among teeth Nos. 6 through 11.



Fig. 4 Conservative preparations were completed in enamel and the proper dentin shade was selected.



Fig. 5 At one week post-laser contouring, excellent tissue health was observed and the proper enamel shades were selected.



Fig. 6 The veneers were tried in using the transparent shade of the Variolink Veneer try-in gel.

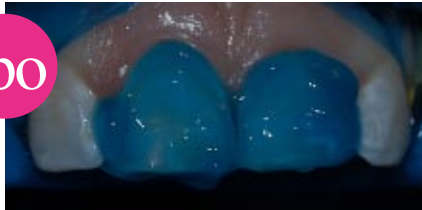


Fig. 7 Total Etch 37% phosphoric acid was applied to the preparations.



Fig. 8 System Desensitizer was applied to the preparations after etching and lightly air dried.



Fig. 9 Excite bonding agent was applied to the preparations and lightly air dried.



Fig. 10 The bonding agent was light-cured using an LED curing light (bluephase).



Fig. 11 Liquid Strip was applied to the veneer margins before curing.

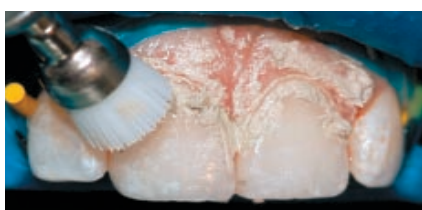


Fig. 12 OptraFine diamond polishing paste and bristle brush were used to polish the margins after removing excess cement.

- contacts (Fig. 6).
3. Total Etch 37% phosphoric acid was applied to the preparations for 30 seconds per tooth, then thoroughly rinsed from the preparations (Fig. 7).
4. A desensitizing agent (System Desensitizer) was applied to the preparations after etching and lightly air dried (Fig. 8).
5. A thin coat of a single component bonding agent (Excite) was scrubbed onto the preparations for 15 seconds per tooth (Fig. 9) and then lightly air dried.
6. The bonding was light-cured for 10 seconds per tooth (Fig. 10).
7. The pressed ceramic restorations (IPS Empress) were etched and silanated, and the bonding agent was placed into the internal aspects of the restorations but not cured.
8. The resin cement was placed on the internal surface of the restorations, and the restorations were seated into place.
9. A 2 mm light-curing tip was used to spot tack the restorations at the gingival third. The curing light was then waved from the buccal aspect for 1 second per tooth to initiate a gel-like consistency of the cement and tack the restorations into place. The gel-like consistency of the cement facilitated clean-up of the excess from the margins.
10. Liquid Strip was applied to the veneer margins before final curing to reduce the oxygen inhibition layer (Fig. 11).
11. Each restoration was cured for 30 seconds from the buccal and 30 seconds from the incisal aspects.
12. Excess cement was removed from the margins and interproximally, after which OptraFine diamond polishing paste and bristle brush were used to polish the margins of the restorations (Fig. 12).

Conclusion

This case's esthetic outcome (Figs. 13 and 14) was partly because of the micro-filled esthetic resin cement that enabled easy and predictable color matching among the pressed ceramic veneers (IPS Empress). The clinician controlled the esthetics of the anterior veneer restorations during the seating appointment and maintained the desired effects. **DPR**

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Acknowledgement

The author wishes to thank Hakjoo at M32 Oral Design Studio for her fabulous work in creating the IPS Empress veneers featured in this article and for achieving the fantastic color matching.

All the products used in this case are from Ivoclar Vivadent.

THE RESULT



Fig. 13 Close-up view of the final veneer restorations. Note the detailed appearance and characterization that match the natural dentition.



Fig. 14 Retracted view of the veneers two weeks post-op. Note the health of the gingival tissues and the color match of the veneers against the adjacent teeth No. 7 and No. 10.

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