

Infinity®

Hybrid Resin Ionomer Cement

Research Reference Guide

1. Abel, M. G., “The Direct Resin Onlay Technique”, Dentistry Today, 25(1):84, January 2006.

A direct technique for fabricating a light and heat cured composite resin onlay is presented. The onlay was cemented with Infinity. The technique provides an expedient, one appointment application for light and heat cured composite resin inlays and onlays.

2. Pilon, M. “Maryland Bridge provides predictable and satisfying treatment option”, DentalTown, 4(10):44, October 2003.

A clinical case involving replacement of a maxillary central incisor with a Maryland Bridge is reported. Infinity and Tenure A & B are used to bond the bridge. Although the retainers are metallic, curing of the infinite cure Infinity is initiated by transillumination through the abutment teeth with an Allegro LED Light. The case is completely successful at six months post op, and the author indicates having excellent success in the past bonding Maryland Bridges with Infinity and Tenure A & B.

3. THE DENTAL ADVISOR, Vol. 19, No. 10, December 2002.

Clinical consultants awarded Infinity Syringeable a 4 1/2-PLUS (91%) rating. The evaluators stated, “Infinity Syringeable is a highly recommended, dual-cured, resin ionomer cement for crown and bridge cementation.” They also commented about the quick, easy delivery with excellent consistency, and thought the mixing tips were very good for cement placement.

4. Strassler, H.E., “An Auto-Mixing Resin Ionomer Cement,” Compendium of Continuing Education in Dentistry®, Vol. 23, No. 4, April 2002: 360.

Infinity resin ionomer cement has been used successfully in dentistry for more than 10 years. In addition, the author has found it to be one of the most biocompatible resin cements and, when used with Tenure®, noted a significant reduction in post-cementation sensitivity. A recent innovation is the use of an automix syringe for dispensing and mixing to making the task of cementation more consistent and easier.

5. White, S.N., et al., “Fatigue of Resin Cement-Based Metal Alloy Bond Strength,” Journal of Prosthetics, Vol. 5, 1996: 253-258.

This study investigated the bond strength of nine resin cements to a base metal alloy. Artificial aging with various numbers of thermo cycling was employed. This study demonstrated that Infinity bonds remained stable throughout the testing. The bond strengths of the other cements dropped significantly.

6. THE DENTAL ADVISOR PLUS, July – August 1995.
- The evaluators of THE DENTAL ADVISOR reported a 4-STAR rating from their clinical findings after evaluating Infinity. The report stated that Infinity is highly recommended as a multi-purpose, dual-cure, resin cement.
7. White, S.N., Yu, Z., Tom, J.F., Sangsurasak, S., “In Vivo Marginal Adaptation of Cast Crowns Luted with Different Cements,” Journal of Prosthetic Dentistry, Vol. 74, 1995: 25–32.
- This study showed that after crown cementation with Infinity and Infinity + Tenure, marginal discrepancies were within commonly accepted ranges of clinical acceptability. The use of Tenure did not increase marginal gap discrepancies.
8. White, S.N., Yu, Z., Tom, J.F., Sangsurasak, S., “In Vivo Microleakage of Luting Cements for Cast Crowns,” Journal of Prosthetic Dentistry, Vol. 71, 1994: 333–337.
- Statistical analysis revealed meaningful differences between Infinity and the Infinity/Tenure All-Surface Bonding System compared to zinc phosphate.
9. White, S. N. “Adhesive Cements and Cementation”, CDA Journal, 21(6):30, June 1993.
- The characteristics of the different categories of dental luting cements are presented along with the primary advantages and disadvantages of each type. Based on referenced studies, Infinity is identified as the product of choice in the category of Composite Resin – Glass Ionomer hybrid cements. Clinical information on cementation procedures is also presented.
10. Clinical Research Associates Newsletter, Vol. 17, Issue 5, May 1993.
- This newsletter describes resin cements, including Infinity, and provides clinical indications for their use. It detailed many clinical applications:
- 1) Standard cementation procedures for crowns and fixed prostheses
 - 2) Cementation procedures for ceramic or resin crowns
 - 3) Cementation procedures for fixed prostheses requiring high retention
 - 4) Repair of crowns
 - 5) Cementation of ceramic and resin inlays and onlays
 - 6) Cementation of gold alloy inlays, onlays, or resin retained adhesion prostheses
 - 7) Cementation of metal-to-metal in implant dentistry
 - 8) Cementation of posts
11. Assmussen, E., Attal, J., DeGrange, M., “Adherence of Resin-Based Luting Agents Assessed by the Energy of Fracture,” ACTA Odontol Scand, 1993: 151.
- The statistical analysis showed that Infinity cement has a significantly higher fracture resistance (80% greater) than Panavia EX (Kuraray), and also out-performed ABC Dual (Vivadent), Comspan Opaque (Caulk/Dentsply), Durlingual (Unitek), Porcelite Dual Cure (Kerr), and Twinlook (Kulzer).

12. White, S.N., Yu, Z., “Physical Properties of Fixed Prosthodontic, Resin Composite Luting Agents,” International Journal of Prosthodontics, Vol. 6, 1993: 384-389.

This study compares the physical properties of six resin-composite luting agents and one control. Results indicated that C&B Metabond suffered considerable plastic deformation; Panavia EX failed to meet ADA type II specifications; All-Bond Crown and Bridge Cement’s film thickness was greater than the negative control. Infinity, however, demonstrated good compressive and diametral tensile strengths and an acceptable film thickness.

13. White, S.N., Yu, Z., “Compressive and Diametral Tensile Strengths of Current Adhesive Luting Agents,” Journal of Prosthetic Dentistry, Vol. 69, 1993: 568–572.

Results indicate that Infinity exhibited a compressive strength of 140.7 MPa compared to 62.1 MPa for zinc phosphate cement. In regards to diametral tensile strength, Infinity yielded a strength of 23.1 MPa compared to 9.3 MPa for zinc phosphate cement. In conclusion, Infinity exhibited significantly greater compressive and diametral tensile strengths than zinc phosphate cements.

14. White, S.N., Yu, Z., “Film Thickness of New Adhesive Luting Agents,” Journal of Prosthetic Dentistry, Vol. 67, 1992: 782-785.

Infinity met the ADA Type II specification for film thickness of less than 40 microns. It should be noted that ADA Type II materials are recommended for all uses except the cementing of precision appliances.

15. Freedman, G., “Short Crown Solution,” Cosmetic Dentistry Update 1992: 48.

This article discusses the problems of debonding often associated with cementing a crown to a tooth with a very short clinical length. The author advocates the use of a resin ionomer, such as Infinity, because of the following reasons: high bond strength, fluoride release, insolubility, and decrease in microleakage. Additionally, Infinity is safe to use, does not require the use of an oxygen inhibitor, has radiopacity, and offers a working time of four (4) minutes.