

BISCO

Where Chemistry and
Oral Health Meet

All-Bond Universal Case Study



RELIABILITY AND CONSISTENCY IN A SINGLE ADHESIVE

Courtesy of Joseph S. Kim, DDS, JD

Although the majority of my general dentistry practice involves implant and sedation dentistry, my passion remains in producing predictable restorative solutions for my patients. Prior to using it, I did not know how important ALL-BOND UNIVERSAL® was to the restorative practice in regard to reliability, consistency, and unifying our adhesive to a single bottle. Incorporating it into our practice has reduced our bond failures across the board, from direct restorations to complex bridgework.

How simple is ALL-BOND UNIVERSAL?

It's no-nonsense application as a self-etching adhesive to prepared tooth structure and most substrates is extremely helpful.

How would you describe its reliability?

Clinicians will tend to notice the reliability when stained margins, lost restorations, and tooth sensitivity do not materialize.

How does it help your bottom line?

The reduction in inventory makes this product a no-brainer from a financial and ordering standpoint.

JOSEPH KIM, DDS, JD, maintains a general practice focused on sedation and implant therapy in the Chicago suburbs. Dr. Kim is excited to serve as a consultant to BISCO, working with the Research and Development Department in the development of new and innovative products.



Optimal Adhesion to Enamel

A post-orthodontic direct composite case is an example of enamel bonding, as the discrepancy in the incisal edges are limited to the patient's enamel. (Figure 1) In this case, the enamel was prepared with a coarse diamond, extending the margin of the bevel far from the actual restoration site in order to improve retention surface area, minimize the optical transition from tooth to resin, and to move the restorative junction away from the center of the tooth. (Figure 2) It is noteworthy that no dentin was exposed in the preparation. Etchant was applied to the right central incisor for 15 seconds and thoroughly rinsed and dried. (Figure 3) Adequately etched

enamel will display a frosty white appearance, and should be protected from saliva contamination. (Figure 4) A mylar strip was used to provide isolation from the adjacent central incisor. All-Bond Universal adhesive was applied in two coats to the etched and visibly moist enamel, followed by gentle air pressure to thin out the adhesive and evaporate the solvent. In this case, a wedge was not used as the patient was not anesthetized. The adhesive was light-cured for a minimum of 10 seconds. (Figure 5) Composite resin was applied in two layers and sculpted, with each layer receiving an initial cure through the lingual tooth surface in order to shrink the com-



Figure 1
Pre-Operative



Figure 2
Enamel prepared with coarse diamond



Figure 3
Apply etch



Figure 4
Protect etched enamel from saliva



Figure 5
Apply adhesive and light cure



Figure 6
Apply composite and light cure

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posite against the facial surface. (Figure 6) The final contour of the restoration was accomplished using a carbide finishing bur to blend in the margins, while an instrument was used to protect the gingiva from trauma. (Figure 7) Primary facial anatomy was also established at this stage. (Figure 8) A #12 scalpel was used to remove any interproximal flash and define the facial embrasure. (Figure 9) Brown and green composite finishing rubber points were used to attain a polished surface. (Figure 10) The same procedures were used for the left central incisor, and the patient was satisfied with the final result. (Figure 11)

Conclusion

You can rely on All-Bond Universal to fulfill all restorative needs efficiently and effectively. Using a one-bottle dental adhesive that does not require an activator in this and other cases has some noticeable benefits, including not having to store and keep track of activating brushes and multiple bottles. The use of All-Bond Universal resulted in a time- and cost effective appointment for the restorative team and patient.



Figure 7

Final contour of restoration



Figure 8

Primary facial anatomy accomplished



Figure 9

Polished surface



Figure 10

Post-Operative



Figure 11

Post-Operative

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