

Bonding Breakthroughs: Flexibility in Etching Plus Low Film Thickness

FILM THICKNESS

Prime
&Bond **elect**
Universal Dental Adhesive

Leading
Competitor

Better Bond Strength Without Post-Op Sensitivity

Dr. Jason Goodchild explains important advances in adhesive technology that give you a solution that excels in all etching methods and delivers crucial strength with virtually no post-op sensitivity. That solution is Prime&Bond Elect™.

[READ ARTICLE >>](#)



Selective-Etch: Watch It Done Right

Dr. Lou Graham explains and demonstrates a successful selective-etch procedure with Prime&Bond Elect™.

See it here – then watch the self-etch and total-etch videos, too. [WATCH NOW >>](#)



Prime&Bond Elect™ Usage Tips

1. When mixing the self-cure activator with the bonding agent, use the plastic end of the brush, not the flocked applicator tip.
2. If you are experiencing evaporation issues before placing the bonding agent, we recommend the Clixdish™, which has had very positive feedback from our customers.

Our procedure videos offer more tips for all etch methods.

[VIEW VIDEOS >>](#)



The Key Is In The Chemistry

Breakthrough chemistry is what makes Prime&Bond Elect™ so versatile and so successful in delivering optimal results.

[Here's the story](#) behind PENTA chemistry. [LEARN MORE >>](#)

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D.D.S. Dan



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DENTSPLY Caulk



One Adhesive for All Clinical Situations

Jason H. Goodchild, DMD

Since 1955, Buonocore's acid-etching technique has made bonding to enamel successful.¹ But achieving consistent dentin bonding has been more challenging because of factors like microleakage, resin infiltration and penetration, hydration versus desiccation, and post-operative sensitivity.² To mitigate these factors, the evolution of dentin bonding has included a shift from total-etch techniques involving placement of 30-40% phosphoric acid on both enamel and dentin surfaces (i.e., etch-and-rinse) to self-etch techniques in which phosphoric acid esters are contained within the bonding agent and no etchant gel is placed on the preparation.³

Recently, a third bonding technique has emerged that allows for hybridization of the remaining dentin smear layer and includes phosphoric etching of exposed enamel to maximize bond strength and prevent marginal discoloration. The selective-etch technique is designed to harness the positive attributes of both techniques for improved clinical outcomes. In several recent studies, selective-etch adhesives were found to have increased enamel bonding while causing no post-operative sensitivity.^{4,5} In a meta-analysis by Heintze and Rousson, it was found that restorations placed with rubber-dam isolation and enamel-etching technique showed the best overall performance.⁶

Prime&Bond Elect™ from DENTSPLY Caulk is designed as a one-bottle dental adhesive suitable for all three adhesive modes: total-etch, self-etch and selective-etch. Built on 13 years of proven PENTA (the adhesive resin dipentaerythritol penta acrylate monophosphate) technology from Prime&Bond® NT™, this new bonding agent provides a unique micromechanical and chemical bond for long-term success.⁷

It is ideal in cases where the preparation is primarily in enamel (where a total-etch technique is indicated), in preparations in mostly dentin (where a self-etch technique can be used), and for preparation containing significant enamel and dentin (where a selective-etch technique is advised). According to Prime&Bond Elect™'s directions-for-use manual, practitioners should not fear negative sequelae, such as decreased dentin bond strengths if unintended phosphoric etchant gel contacts exposed dentin, unlike with other products (e.g., Clearfil SE).⁸

Learn more about how DENTSPLY Caulk can help you maximize your adhesive techniques: call 1-800-LD-CAULK or visit www.PrimeandBondElect.com today.

References

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