XP Bond Universal Total Etch Adhesive (Dentsply/Caulk) (Project 07-021) (7/09)

XP BOND is an etch and rinse, two-step dental adhesive (aka “Fifth Generation”) that has been recently marketed by Dentsply Caulk. XP BOND is similar to Dentsply Caulk’s familiar Prime&Bond NT in that it contains the same PENTA adhesion promoter and nanofillers. However, XP BOND differs in that the acetone solvent used in Prime&Bond NT has been replaced with an alcohol (tert-butanol). The newer solvent tert-butanol is said to allow increased resin content of XP BOND compared to Prime&Bond NT. While the primary delivery form of XP BOND is visible light activated, XP is advertised as indicated for bonding indirect restorations when mixed with the XP BOND Self-Cure Activator which is then combined with either a dual- or self-cure resin cement. Furthermore, XP Bond is available in a self-cure delivery system for the bonding of amalgam restorations.

Manufacturer:
Dentsply Caulk
38 West Clark Ave
P.O. Box 359
Milford, DE 19963
(800) 532-2855
(302) 422-4511
(800) 788-4110 FAX
www.dentsply.com

Suggested Retail Price:
$152.60 XP Bond Introductory Kit (#693000)
Includes:
- One 5 mL Bottle XP BOND
- 50 Flocked Applicator Tips
- One 3 mL Syringe Caulk® 34% Tooth Conditioner Gel
- 25 Applicator Needles
- One CliXdish™ Mixing Well
- Instructions and Technique card

$134.50 XP Bond Refill Package (#693001)
Includes:
- One 5 mL Bottle XP BOND

$278.15 XP Bond Unit Dose Refill Package (#693002)
Includes:
- 100 Unit Doses
- 100 Flocked Applicator Tips
- 3 Unit Dose Holders

$300.75 XP Bond Dual Cure Introductory Kit (#693003)
Includes:
- One 5 mL Bottle XP BOND
- One 4.5 mL Bottle Self-Cure Activator
- 100 Flocked Applicator Tips
- One 3 mL Syringe Caulk 34% Tooth Conditioner Gel
- 25 Applicator Needles
- One CliXdish™ Mixing Well
- Instructions and Technique card

$144.75 XP Bond Self-Cure Activator Refill Kit (#634354)
Includes:
- One 4.5 mL bottle Self-Cure Activator

$142.60   XP Bond Amalgam Bonding Accessory Kit (#634402)
Includes:
- One 3 mL bottle Amalgam Bonding Base
- One 3 mL bottle Amalgam Bonding Catalyst
- One Dispensing Well
- Instructions and Technique Card

Government Price: (item numbers and contents as listed above)
$90.65   XP Bond Introductory Kit
$79.95   XP Bond Refill Package
$165.28 XP Bond Unit Dose Refill Package
$181.36 XP Bond Dual Cure Introductory Package
$85.98   XP Bond Self-Cure Activator Refill Kit
$85.98   XP Bond Amalgam Bonding Accessory Kit

ADVANTAGES:
+ Microtensile bond strength comparable with similar products
+ Application time similar to comparable products
+ Available in unit-dose delivery form
+ Available self-cure activator
+ Application process is shown pictorially on laminated card
+ Recommended storage conditions are provided on instruction sheet and box
+ Packaged in a small, space-saving box
+ Moderately priced
+ Expiration dates and lot numbers are stamped on individual components
+ Material Safety Data Sheet (MSDS) provided with product

DISADVANTAGES:
- Limited clinical studies available with this particular product

SUMMARY AND CONCLUSIONS:
XP BOND is a two-step, etch and rinse dental adhesive that is based on a tertiary butanol alcohol solvent. The microtensile bond strength to dentin was found to be comparable with other two-step etch and rinse adhesives reported in the dental scientific literature. Furthermore, application time of XP BOND for direct restoration placement was also found to be similar to other dental adhesives of the same class. XP BOND possesses the capability to be used for luting indirect restorations as well as bonding amalgam with the purchase of additional kits. **XP BOND** is rated **Acceptable** for use in US Air Force dental facilities.