ALL-BOND 2®

Universal Dental Adhesive

Instructions for Use



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Caution: U.S. Federal law restricts this device to sale by or on the order of a licensed Dentist.

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GENERAL INFORMATION

ALL-BOND 2, the original 4th Generation adhesive, has a comprehensive ability to bond to dentin, enamel, new or old composite, precious, semi-precious and non-precious casting alloys, silane-treated porcelain, and new or old amalgam. ALL-BOND 2 has a dual-cured primer, for higher conversion rates, and contains BISCO's own hydrophilic monomer (BPDM).

Indications for Use:

- 1. Composite Restoration, Dentin/Enamel Etch
- 2. Directed Shrinkage Composite Restoration
- 3. Porcelain/Acrylic Repair
- 4. Porcelain Cementation (Inlay, Onlay, Crown)
- 5. Composite Cementation (Inlay, Onlay, Crown)
- 6. Porcelain Veneer Cemenation
- 7. Bonding to Existing Composite
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- 9. Adhesive Amalgam Restorations
- 10. Bonding Fresh Amalgam to Existing Amalgam
- 11. Desensitizing Tooth (Root) Surface
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- 14. Core (Composite) Build-Up to Post
- 15. Metal Crown/Maryland Bridge Cementation
- 16. Metal to Metal (Implant) Cementation

Warnings:

- · PRIMERS A&B are highly flammable.
- · Avoid splashing into the eyes. If ALL-BOND 2 or etchant comes into contact with the eyes, flush with copious amounts of water and seek medical attention.
- · The phosphoric acid in the etchant is a severe eye and skin irritant. Injury may result if the etchant is allowed to remain on the skin or mucosa for extended periods of time. If accidentally splashed into the eye, flush with copious amounts of water and seek medical attention immediately. In case of contact with other tissues, rinse immediately with plenty of water for several minutes.
- · When using dental adhesives, contamination will compromise dentin bonding and may result in decreased longevity of the restoration. A rubber dam is recommended for all direct restorations and other indications where contamination may be possible.
- Cautions:

· Cross-contamination: Product may contain items that are designed for one time use. Dispose of used or contaminated accessories. Do not clean, disinfect or reuse.

Precautions:

- · ALL-BOND 2 contains light-cured and dual-cured components. Use ALL-BOND 2 immediately once it is dispensed in the mixing well. Prolonged exposure to air and light may lead to solvent evaporation and thickening of the adhesive.
- · To avoid evaporation of ALL-BOND 2, keep container tightly closed.
- · Avoid contact with the skin; unpolymerized resins may cause skin sensitization in susceptible persons. In case of contact, wash skin with soap and water.
- · Keep etchant away from direct sunlight. Prolonged exposure to sunlight could cause a discoloration of the etchant; this will not compromise the efficacy of the product.
- Test the application of etchant on a mixing pad or a glass slab, BEFORE use on patients so as to become familiar with the pressure required to dispense the etchant from the tip. Never use intraorally before checking flow from tip. Never use force on plunger to start flow intraorally; this could result in a subsequent uncontrolled discharge of material. If resistance to flow is experienced, DO NOT proceed. Replace with new tip and verify flow before use on patient.
- Prophy pastes containing oil or fluoride should not be used as these additives may interfere with etching.
- · See individual component labels for specific expiration dates.
- · Safety data sheet available on request.
- Safety data sheet available at www.Bisco.com.

1. Composite Restoration, Dentin/Enamel Etch

- 1. Prepare cavity and clean surface with pumice.
- 2. Etch enamel and dentin for 15 seconds with UNI-ETCH®* (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- 3. Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentina. DO NOT DRY BETWEEN COATS! After primer application is complete, dry all surfaces for 5-6 seconds with an air syringe to insure thorough solvent and displaced water removal. Properly primed surface will appear glossy when coverage is sufficient.
- Brush a thin layer of DENTIN/ENAMEL (D/E) RESIN* over enamel and dentin, Light cure for 20 seconds.
- 5. Proceed with composite layering and finishing.
- Additional coats are beneficial. Apply all mixed primer

2. Directed Shrinkage Composite Restoration

Also needed: BISFIL™* 2B or BISFIL™* II

- 1. Clean cavity and clean surface with pumice.
- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₂PO₄). Rinse thoroughly. Remove excess water with a brief burst of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application
 is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure through solvent and displaced water removal. Properly
 primed surface will appear glossy when coverage is sufficient. Light cure for 20 seconds.
- Mix an equal volume or D/E RESIN and PRE-BOND* RESIN on a mixing pad and brush onto entire cavity surface. Lightly air thin to avoid pooling.
- 5. Mix an equal portion of base and catalyst of BISFIL 2B or BISFIL II.
- Syringe BISFIL 2B or condense BISFIL II into the cavity preparation to the level of the Dentin-Enamel Junction.
- Prior to the initial set of BISFIL composites, place a thin preformed patty of light-cured composite slightly wider than cavity preparation and lightly condense.
 Following set of directed shrinkage composite, firmly condense light-cured composite, remove excess and light cure for 40 seconds.
- 8. Proceed with conventional finishing and polishing.

NOTE: Contact with adjacent tooth should be established with a light cure composite.

3. Porcelain/Acrylic Repair

Also needed: Sandblaster

NOTE: Some settling of BISCO's DUAL-CURE (D/C) OPAQUER* may occur. Shake well prior to dispensing.

- 1. Place rubber dam.
- 2. Bevel margin with diamond bur.
- Sandblast metal and porcelain. For optimum bonding, etch porcelain with Porcelain Etchant). If a sandblaster is not available, abrade with a medium diamond bur and clean surface with pumice. Rinse and dry.
- Apply PORCELAIN PRIMER* (silane) to porcelain surface for 1-2 minutes. Air dry. Mix PRIMERS A & B and apply 2 coats to metal and porcelain. Air dry for 5-6 seconds with air syringe.
- If metal is present, mix D/C OPAQUER base and catalyst and apply a thin layer to metal. Light cure for 30 seconds to prevent slumping.
- Apply a thin layer of D/E RESIN to porcelain and opaqued metal. Light cure for 20 seconds.
 Proceed with composite layering and finishing. Microfill composites are not recommended.

NOTE: If acrylic is present, treat the same as porcelain. Omit PORCELAIN PRIMER/ PORCELAIN ETCHANT.

4. Porcelain Cementation (Inlay, Onlay, Crown)

Tooth Preparation

- 1. Remove temporary, pumice the preparation and try in the restoration.
- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst
 of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application
 is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. Properly
 primed surface will appear glossy when coverage is sufficient. Light cure for 20 seconds.
- 4. Apply a layer of PRE-BOND RESIN immediately prior to cementation. Air thin. Do not light cure.

Porcelain Surface Preparation

- Sandblast for 1-2 seconds and acid cleanse with UNI-ETCH (32% H₃PO₄) or etch for 3-4 minutes with PORCELAIN ETCHANT* (4% hydrofluoric acid). Rinse and dry.
- 2. Apply PORCELAIN PRIMER (silane) for 30 seconds and dry
- 3. Apply a thin layer of D/E RESIN. DO NOT LIGHT CURE!

Cementation

1. Place the desired amount of cement to the intaglio and seat restoration with gentle passive pressure.

Light cure for 40 seconds.

5. Composite Cementation (Inlay, Onlay, Crown)

Tooth Preparation

- 1. Remove temporary, pumice the preparation and try in the restoration.
- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst
 of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- 3. Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. Properly primed surface will appear glossy when coverage is sufficient. Light cure 20 seconds.
- 4. Apply thin layer of PRE-BOND RESIN immediately prior to cementation. Air thin. DO NOT LIGHT CURE!

Composite Surface Preparation

- Sandblast for 1-2 seconds. Rinse and dry.
- 2. Apply 2 coats of PRIMERS A & B to composite surface, dry with air syringe.
- 3. Apply a thin layer of D/E RESIN. DO NOT LIGHT CURE!

Cementation

- 1. Place the desired amount of cement to the intaglio and seat restoration with gentle passive pressure.
- 2. Light cure for 40 seconds.

6. Porcelain Veneer Cementation

- 1. Remove temporary, pumice the preparation and try in the restoration.
- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst
 of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application
 is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. Properly
 primed surface will appear glossy when coverage is sufficient. Light cure 20 seconds.
- 4. Brush a thin layer of D/E RESIN over enamel/dentin. DO NOT LIGHT CURE!

Veneer Preparation

- 1. Etch for 3-4 minutes with PORCELAIN ETCHANT (4% hydrofluoric acid). Rinse and dry.
- 2. Apply PORCELAIN PRIMER (silane) to acid etched surface of the veneer for 30 sec. Dry.
- 3. Apply one layer of D/E RESIN to veneer. Do not light cure!

Cementation

- 1. Select desired shade of light-cured cement and line the inside surface of the veneer.
- 2. Seat veneer on tooth with gentle pressure. Remove excess with clean brush.
- 3. Light cure for 40 seconds per surface, beginning with the lingual.

7. Bonding to Existing Composite

Also needed: Sandblaster

- Pumice tooth preparation.
- 2. Remove layer of old composite and bevel fractured margin.
- 3. Sandblast composite surface.
- Apply etchant (32% H₃PO₄) on composite and enamel (if present) for 15 seconds. Rinse thoroughly. Dry for 5-6 seconds.
- 5. Mix PRIMERS A & B. Apply two consecutive coats. DO NOT DRY IN BETWEEN COATS!
- 6. Apply a thin layer of D/E RESIN. LIGHT CURE FOR 20 SECONDS.
- 7. Proceed with composite layering and finishing.

8. Bonding to Metal/Amalgam

Also needed: Sandblaster

NOTE: Some settling of BISCO's DUAL-CURE (D/C) OPAQUER may occur. Shake well prior to dispensing.

- 1. Sandblast metal surface. Rinse thoroughly. Dry for 5-6 seconds.
- Etch enamel, if present, for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess moisture with a brief burst of air.
- Mix PRIMERS A & B. Apply two coats to entire preparation. Dry for 5-6 seconds with an air syringe to ensure thorough solvent removal.
- 4. Mix D/C OPAQUER and apply a thin layer to primed metal/amalgam surface. Light cure 30 seconds to prevent slumping.
- 5. Brush a thin layer of D/E RESIN over enamel and opaqued metal/amalgam surface. Light cure for 20 seconds.
- 6. Proceed with composite layering and finishing.

9. Adhesive Amalgam Restorations

Optional materials: RESINOMER™*, BISCO's multipurpose resin ionomer.

- 1. Prepare cavity and clean surface with pumice.
- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst
 of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- Mix PRIMERS A &B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application
 is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. Properly
 primed surface will appear glossy when coverage is sufficient. Light cure to 20 seconds.
- Mix an equal volume of D/E RESIN and PRE-BOND RESIN on a mixing pad and brush a thin layer onto entire cavity surface.
 Lightly air thin to avoid pooling. (Note: A mixture of the base and catalyst of RESINOMER can be substituted for D/E RESIN and PRE-BOND RESIN.)
- 5. Condense amalgam. Carve and finish as usual.

NOTE: Matrix band should be placed after application of mixed Primers and should be lightly lubricated by rubbing wax on matrix surface.

10. Bonding Fresh Amalgam to Existing Amalgam

Also needed: Sandblaster and RESINOMER (BISCO's multipurpose resin ionomer.) for alternate technique.

- 1. Sandblast the surface of the existing amalgam. Rinse and dry.
- 2. Mix PRIMERS A & B. Apply two coats. Dry for 5-6 seconds with an air syringe to ensure thorough solvent removal.
- Mix an equal amount of D/E RESIN and PRE-BOND RESIN (or RESINOMER) on a mixing pad and brush a thin layer onto the surface. Lightly air thin to prevent pooling.
- 4. Condense amalgam. Carve and finish as usual.

11.Desensitizing Tooth (Root) Surface

Also needed: BISCO's CAVITY CLEANSER™* and pumice.

- Clean dentin surface by scrubbing with CAVITY CLEANSER and pumice. (Dip cotton pellet soaked with CAVITY CLEANSER into flour of pumice).
- 2. Rinse thoroughly with warm water.
- 3. Blot gently with moistened cotton pellet. To minimize patient discomfort do not air dry.
- Mix PRIMERS A & B. Apply five consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After the fifth coat, dry for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal.
- 5. REPEAT STEP 4.
- 6. Light cure for 10 seconds.

NOTE: A white line on the gingiva may be observed. This is a cured primer film. Scrub with wet cotton pellet, then peel off.

NOTE: Desensitizing is most effective on freshly scaled root surfaces.

12. Shallow Class V

- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst
 of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application
 is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. Properly
 primed surface will appear glossy when coverage is sufficient.
- Restore lost tooth structure with a low viscosity, flowable, composite using an incremental placement technique. If you are restoring with a high viscosity (stiff) composite, a layer of D/E RESIN is needed. If sclerotic dentin is present abrade with a diamond bur and etch for at least 45 seconds with phosphoric acid.
- 4. Finish.

13. Post Cementation Using ALL-BOND 2

- 1. Prepare the post space according to manufacturer's instructions.
- Etch the canal using UNI-ETCH for 15 seconds. Rinse thoroughly and remove excess water with a brief burst of air and paper point(s) to remove any pooled water from the canal.
- Mix PRIMERS A & B. Apply two consecutive coats to root canal surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. A paper point may be necessary to help with drying.
- 4. Apply a thin layer of PRE-BOND RESIN with a paper point. Do not light cure!
- Apply two coats of PRIMER B only to previously sandblasted or roughened metal post. Dry with an air syringe.
 Mix a self-cure or dual-cure cement and place on post. *DO NOT SPIRAL CEMENT INTO CANAL! Seat post into preparation
- Remove excess cement from around post immediately.
- A Placing luting cement directly in the canal with a lentulo spiral may cause premature set of cement.

ALTERNATIVE TECHNIQUE: Follow directions above except for step #3. Omit PRIMER A and just use PRIMER B in canal. This technique will allow you to spiral cement into the canal without premature set of cement. This alternate technique is for this procedure only.

14. Core (Composite) Build-Up to Post

- Mix PRIMERS A & B. Apply five consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS. Dry for 5-6 seconds
 with an air syringe to ensure thorough solvent and displaced water removal. Light-cure for 20 seconds.
- 2. Apply thin layer of mixed D/E RESIN and PRE-BOND RESIN to root surface and post.
- Apply core composite thoroughly around post and complete build-up according to manufacturer instructions.

15. Metal Crown/Maryland Bridge Cementation.

Tooth Preparation

- 1. Remove temporary, pumice the preparation and try in the restoration.
- Etch enamel and dentin for 15 seconds with UNI-ETCH (32% H₃PO₄). Rinse thoroughly. Remove excess water with a brief burst
 of air. DO NOT DESICCATE! ALL-BOND 2 prefers moist dentin/enamel.
- 3. Mix PRIMERS A & B. Apply 5 consecutive coats to enamel and dentin. DO NOT DRY BETWEEN COATS! After primer application is complete, dry all surfaces for 5-6 seconds with an air syringe to ensure thorough solvent and displaced water removal. Properly primed surface will appear glossy when coverage is sufficient. Light cure for 20 seconds.
- 4. Apply thin layer of PRE-BOND RESIN immediately prior to cementation. AIR THIN. DO NOT LIGHT CURE!

Metal Preparation (Crown - All metals)

- 1. Sandblast the inside of the crown. Rinse and dry.
- 2. Apply 2 coats of PRIMER B only to metal surface. Dry with air syringe

Metal Preparation(Maryland Bridge)

- 1. Sandblast*. Rinse and dry.
- 2. Apply two coats of mixed PRIMER A & B. Dry.
- 3. Apply layer of PRE-BOND RESIN. Air thin. Do not light cure!

NOTE: An opaque shade of luting cement is best for Maryland Bridge cementation.

Cementation

- 1. Proceed with cement of choice per manufacturer's instructions.
- Seat restoration with gentle passive pressure.
- Remove excess luting cement from margins immediately.
- A Sandblasting is highly recommended for Maryland Bridge attachments.

16. Metal to Metal (Implant) Cementation

- 1. Sandblast metal surfaces to be cemented. Rinse and dry.
- 2. Apply two coats of PRIMER B only to metal surface. Dry with an air syringe.
- Mix cement and place on metal.
 Seat restoration with gentle and passive pressure. Remove excess luting cement from margins immediately.

DISINFECTION: Mixing Well – Soak in cold chemical bath materials compatible with polypropylene according to manufacturer instructions.

DISPOSAL: Refer to community provisions relating to waste. In their absence, refer to national or regional provisions relating to waste.

STORAGE: Store at room temperature (20°C/68°F - 25°C/77°F). See individual component labels for specific expiration dates.

Primers are subject to evaporation, keep bottles tightly capped. Store UNI-ETCH away from direct sunlight.

WARRANTY: BISCO, Inc. recognizes its responsibility to replace products if proven to be defective. BISCO, Inc. does not accept liability for any damages or loss, either direct or consequential, stemming from the use of or inability to use the products as described. Before using, it is the responsibility of the user to determine the suitability of the product for its intended use. The user assumes all risk and liability in connection therewith.

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