

Bisco

CE 0459*

*e***CEMENT**[®]

*Adhesive Cementation System For
Lithium Disilicate Restorations*

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.
* The *e*CEMENT kit containing etchant w/BAC is not CE marked.

Adhesive Cementation System For Lithium Disilicate Restorations**GENERAL INFORMATION**

eCEMENT is a resin cementation system designed to simplify the placement of Lithium Disilicate ceramic (e.g. IPS e.max[®]) restorations. Lithium Disilicate is a silica-based glass ceramic available in pressed and milled forms, with both high and medium opacities, and high and low translucencies. The **eCEMENT** system contains both light-cure, and dual-cure resin cement, ensuring that all of your Lithium Disilicate restorations will have exceptional retention and esthetics. The **eCEMENT** system may also be used for cementation of other silica-based glass ceramic restorations. **eCEMENT TRY-IN PASTES*** are available separately and may be used to visualize and predetermine the aesthetics of the final cementation, they are water-soluble and rinse easily.

Indications for Use:

- **eCEMENT L/C:** Thin restorations with high translucency, where a light-cured only cement is preferred (includes veneers and crowns where the thickness of the restoration does not exceed 2 mm).
- **eCEMENT D/C:** Thicker restorations with medium or high opacity and low translucency, where a dual-cured cement is required (includes opaque veneers, inlays, onlays and crowns, and three-unit bridges, primarily in the posterior region).

NOTE: Excludes high-strength zirconia/alumina restorations.

Contraindications:

- Do not use **ALL-BOND UNIVERSAL[®]** on patients who have a history of severe allergic reactions to methacrylate resins.

Warnings:

- **ALL-BOND UNIVERSAL** and **PORCELAIN PRIMER*** are highly flammable.
- Do not use this product until you have thoroughly read and understood these instructions. Hydrofluoric acid is an aggressive chemical. It is a severe eye and tissue irritant. If accidentally splashed into the eye, flush with copious amounts of water for 15 minutes and seek immediate medical attention.
- Hydrofluoric acid also releases a vapor that irritates respiratory passageways. Chronic inhalation of fumes is dangerous and can cause damage. Extreme care must be taken to protect the patient, operator and assistant. These individuals must wear protective eyewear. The operator and assistant must wear protective gloves. Rubber dam isolation must be used for intraoral porcelain repair.
- **DO NOT** use **PORCELAIN ETCHANT*** (4% HF) to etch exposed enamel or dentin surfaces.
- Verify flow of etchants prior to applying intraorally. If resistance is met, replace tip and re-check. Use only recommended tips.
- Do not allow any product to be ingested.
- Re-cap etchant syringes with the luer lock cap.
- Avoid splashing into the eyes. If **ALL-BOND UNIVERSAL** comes into contact with the eyes, flush with copious amounts of water and seek medical attention.
- The phosphoric acid and hydrofluoric acids in the etchants are severe eye and skin irritants. 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.
- Contamination by saliva, blood, or water should be avoided during these procedures. 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 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:

- Keep **SELECT HV[®] ETCH** 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.
- **PORCELAIN ETCHANT** will microscopically roughen porcelain and glass surfaces. As such, care must be taken to avoid having the etchant contact glazed porcelain surfaces since these surfaces will lose their gloss.
- Do not re-etch restorations that have been etched by the lab. Over etching porcelain may cause weakening of porcelain or degradation of bond strength.
- Prophylactic pastes containing oil or fluoride should not be used as these additives may interfere with etching.
- **ALL-BOND UNIVERSAL** is a light-curable material. Use **ALL-BOND UNIVERSAL** 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 UNIVERSAL**, keep container tightly closed.
- **BISCO** recommends that areas in close proximity to the pulp be protected by application of TheraCal LC[®] Light-Cured, Resin-Modified Calcium Silicate Pulp Protectant/Liner. To ensure accurate fit of the final restoration, the pulp protection should be applied prior to taking an impression.
- Avoid contact with the skin; unpolymerized resins may cause skin sensitization in susceptible persons. In case of contact, wash skin with soap and water.
- Working and setting times will be accelerated in the warm intraoral environment.

- To prevent polymerization or clogging, the dual-syringe mixing tip should be left in place until the next application. If used intraorally, wipe mixing tip with disinfectant prior to storage.
- See individual component labels for specific expiration dates.
- Do not use hydrogen peroxide, EDTA, or eugenol containing materials prior to the adhesive procedure as these materials may inhibit bonding.
- Ensure restoration is prepped per lab instructions.
- Safety data sheet available on request.
- Safety data sheet available at www.Bisco.com.

TECHNICAL INFORMATION	
eCEMENT Light-Cured Resin Cement:	Light cure for 40 seconds from lingual and 40 seconds from the facial, at a distance of approximately 0-10 mm.
eCEMENT Dual-Cured Resin Cement:	Working Time: Minimum 2 minutes at 22°C (71.6°F). Setting Time: Maximum 3 minutes, 30 seconds at 37°C (98.6°F). [▲]
ALL-BOND UNIVERSAL:	Light cure for 10 seconds.
▲ Working time and setting time may vary based on storage conditions, temperature, humidity, etc	

INSTRUCTIONS FOR USE

STEP 1. Restoration Preparation and Try-In

1. If the lab has not already etched the restoration, remove cap from PORCELAIN ETCHANT, securely attach black plastic dispensing tip and verify etchant flow prior to application. Apply PORCELAIN ETCHANT to the dry bonding surface; 25 seconds for Lithium Disilicate (or contact laboratory for recommended etch times for other ceramics). Rinse and dry.
2. Brush on 1 coat of PORCELAIN PRIMER to the internal surface of the restoration and allow to dwell for 30 seconds. Dry with air syringe for 3-5 seconds.
3. If using the **eCEMENT TRY-IN PASTE**, apply the desired shade to the silane – coated restorations and gently seat on the teeth. **NOTE:** The TRY-IN PASTE will not set and will match the corresponding luting cement. After try-in, decontaminate the internal surface of the restoration (phosphoric acid or 2 minutes ultrasonic cleaning with ethanol will remove organic contaminants while leaving the PORCELAIN PRIMER intact). Rinse and air dry.

STEP 2. Tooth Preparation

1. Choose either the SELF-ETCHING TECHNIQUE or the TOTAL-ETCHING TECHNIQUE below.

NOTE: When bonding predominately to enamel, the total-etch technique is recommended.

- **Self-Etching Technique:** Prepare cavity. Wash thoroughly with water spray. Use an absorbent pellet or high volume evacuation (HVE) for 1-2 seconds, to remove excess water (do not desiccate).
 - **Total-Etching Technique:** Prepare cavity. Wash thoroughly with water spray. Attach blue dispensing tip. Etch enamel and dentin using SELECT HV ETCH for 15 seconds. Rinse thoroughly. Remove excess water by blotting the surface with an absorbent pellet or high volume evacuation (HVE) for 1-2 seconds, leaving the preparation visibly moist.
2. Dispense 1-2 drops of ALL-BOND UNIVERSAL into a clean well. Replace the cap onto the bottle promptly to avoid evaporation of solvent.
 3. Apply two separate coats of ALL-BOND UNIVERSAL, scrubbing the preparation with a microbrush for 10-15 seconds per coat. Do not light cure between coats.
 4. Evaporate excess solvent by thoroughly air-drying with an air syringe for at least 10 seconds; there should be no visible movement of the adhesive. The surface should have a uniform glossy appearance; otherwise, apply an additional coat of ALL-BOND UNIVERSAL and air dry. **NOTE:** Due to the amount of solvent, ALL-BOND UNIVERSAL is easily spread thin and will NOT affect cementation procedures, even with tight fitting restorations.
 5. Light cure for 10 seconds.

STEP 3. Cementation

eCEMENT L/C

Thin restorations with high translucency:

1. Apply a generous amount of the selected shade of eCEMENT Light-Cured Resin Cement to the internal surface of the restoration.
2. Carefully place restoration and gently guide into place with passive pressure.
3. Light cure each of the restorations for 3-5 seconds to tack into place.
4. Remove the excess cement.
5. Light cure for up to 40 seconds from lingual and 40 seconds from the facial, at a distance of approximately 0-10 mm.

eCEMENT D/C

Thicker restorations with medium or high opacity and low translucency:

1. Remove the syringe cap or mixing tip from the dual-syringe
2. Dispense a small amount of material onto a mixing pad to eliminate any voids in each chamber of the dual-syringe.
3. Attach a mixing tip to the dual-syringe by lining up the key and keyway. Then turn the brown locking mechanism clockwise.

4. Pressing the plunger will mix and dispense **eCEMENT** Dual-Cured Resin Cement. (See "TECHNICAL INFORMATION" Section for Working and Setting Time information.)
5. Apply **eCEMENT** Dual-Cured Resin Cement to the bondable surfaces of the restoration. For inlays, it may be easier to apply the cement directly to the tooth preparation.
6. Fully seat the restoration and gently remove the excess cement with a brush prior to spot curing the margins for 2-3 seconds per quarter surface (mesio-facial, disto-facial, disto-ligual, mesio-lingual).
7. Optional: after excess cement has been removed each surface of the restoration may be cured for up to 40 seconds.

HYGIENE: Use of commonly available hygienic protective covering to avoid any contamination of the **eCEMENT** syringes during treatment is recommended.

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

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

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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There is no sponsorship, affiliation or connection between BISCO, Inc. and **IVOCLAR VIVADENT**, Inc.

PORCELAIN PRIMER, **eCEMENT TRY-IN PASTE**, and **PORCELAIN ETCHANT** are manufactured by BISCO, Inc.

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