

Bisco

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***DUO-LINK UNIVERSAL
WITH
UNIVERSAL PRIMER™***

*Dual-
Cured*

Adhesive Cementation System

Instructions for Use



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IN-221
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CAUTION: U.S. Federal law restricts this device to sale by or on the order of a licensed Dentist.

DUO-LINK UNIVERSAL™ with UNIVERSAL PRIMER™

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DUO-LINK UNIVERSAL™ with ACE® UNIVERSAL PRIMER™

Adhesive Cementation System

GENERAL INFORMATION

The **DUO-LINK UNIVERSAL KIT** is an adhesive cementation system designed for final cementation of ALL indirect restorations. The combination of products provides high retention and durability of crowns, bridges (fixed prostheses), onlays, inlays, posts/dowels and cement retained implant restorations fabricated from metal, composite, porcelain, ceramic, zirconia, alumina, etc.

UNIVERSAL PRIMER is auto-polymerizing with a light-curing alternative, designed for the dentist who prefers not to light cure the adhesive layer under indirect restorations. **UNIVERSAL PRIMER** has a chemical formulation that allows the adhesive to be used in either self-etch or total-etch mode, based on the clinical situation and dentist preference.

DUO-LINK UNIVERSAL is a dual-curing, auto-mix resin cement available in two esthetic shades, Universal and Milky White. **DUO-LINK UNIVERSAL** cement provides all of the desired properties for universal cementation: high radiopacity, high mechanical strength, high bond strength, low film thickness and easy clean-up.

PORCELAIN PRIMER* is known to enhance the wettability of glass substrates, providing better adaptation of cement, it also increases physical, mechanical and chemical bonding of resin cement to porcelain, and yields a greater resistance to water attack at the bonding interface.

The unique chemistry of Z-PRIME™* Plus makes it a versatile primer for surface treatment of zirconia and alumina metal oxide ceramics as well as metals/alloys, composites and endodontic posts. Both Z-PRIME Plus and PORCELAIN PRIMER were specifically formulated to provide high bond strengths without requiring light-curing.

Indications for Use:

1. Cementation of Glass Ceramics/porcelain (silica-based) or Lithium Disilicate/Silicate Restorations
2. Cementation of Metal, Zirconia, Alumina, Composite and Restorations
3. Cementation of Posts/Dowels

Contraindication:

- Do not use **UNIVERSAL PRIMER** on patients who have a history of severe allergic reactions to methacrylate resins.

Warnings:

- **UNIVERSAL PRIMER**, Z-PRIME Plus and **PORCELAIN PRIMER** are highly flammable.
- Avoid splashing into the eyes. If any products contained in this kit come 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.
- 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:

- **UNIVERSAL PRIMER** is a dual-curable material. Use **UNIVERSAL PRIMER** 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 **UNIVERSAL PRIMER**, keep container tightly closed.
- Z-PRIME Plus is a light sensitive material. Use Z-PRIME Plus immediately once it is dispensed in the mixing well or protect from ambient light.
- Avoid contact with the skin; unpolymerized resins may cause skin sensitization in susceptible persons. In case of contact, wash skin with soap and water.
- If ZOE containing materials have been used on the tooth structure within 2-3 weeks, adequately clean the tooth surface with an abrasive prior to adhesive use.
- 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, it should be wiped with disinfectant prior to storage.
- See individual component labels for specific expiration dates.

TECHNICAL INFORMATION

Working Time: Minimum 2 minutes at 22°C (71.6°F).

Setting Time: Maximum 3 minutes, 30 seconds at 37°C (98.6°F).

Working time and setting time may vary based on storage conditions, temperature, humidity, etc. Excess material is light-cured with a LED polymerization light for 2-3 seconds per quarter surface (mesio-facial, disto-facial, disto-ligual, mesio-lingual), at a distance of approximately 0-10 mm.

INSTRUCTIONS FOR USE

Cementation of Glass Ceramics/porcelain (silica-based) or Lithium Disilicate/Silicate Restorations:

A. Restoration Preparation

1. Upon receipt of the sandblasted and HF acid etched restoration, brush on one 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.
2. 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.

B. Tooth Preparation

1. Choose either the SELF-ETCHING TECHNIQUE or the TOTAL-ETCHING TECHNIQUE below.
 - **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).
NOTE: BISCO's SELECT HV[®] ETCH may be used on cut or uncut enamel to increase mechanical retention. This etchant was designed for precise selective placement.
 - **TOTAL-ETCHING TECHNIQUE:** Prepare cavity. Wash thoroughly with water spray. Etch enamel and dentin using an etchant 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. If using the ACE delivery system, follow the ACE DISPENSER INSTRUCTIONS FOR USE for dispensation of **ACE UNIVERSAL PRIMER**. If using bottles, dispense an equal number of drops of **UNIVERSAL PRIMER** Part A & B (1:1 ratio) into a clean mixing well. Replace the cap(s) promptly to avoid evaporation of solvent.
3. Using a brush, mix adhesive for 5 seconds.
4. Apply two separate coats of **UNIVERSAL PRIMER**, scrubbing the preparation with a microbrush for 10-15 seconds per coat. Do not light cure between coats.
5. Evaporate excess solvent by strongly 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 **UNIVERSAL PRIMER** and repeat this step.
6. Continue with cementation.

C. Cementation

Cement Mixing Procedures:

1. Remove the syringe cap or mixing tip.
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 **DUO-LINK UNIVERSAL**. (See "TECHNICAL INFORMATION" Section for Working and Setting Time information.)

Cementation Procedures:

1. Apply cement to the bondable surfaces of the restoration. For inlays, it may be easier to apply the cement directly to the tooth preparation.
2. 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-lingual, mesio-lingual).
3. Optional: after excess cement has been removed each surface of the restoration may be cured for up to 40 seconds.

Cementation of Metal, Zirconia, Alumina, Composite and Restorations:

A. Restoration Preparation

1. Upon receipt of the sandblasted restoration, brush on one coat of Z-PRIME Plus to the internal surface of the restoration. Dry with air syringe for 3-5 seconds.
2. After try-in, decontaminate the internal surface of the restoration (phosphoric acid or 2 minute ultrasonic cleaning with ethanol will remove organic contaminants while leaving the Z-PRIME Plus intact). Rinse and air dry.

B. Tooth Preparation

1. Choose either the SELF-ETCHING TECHNIQUE or the TOTAL-ETCHING TECHNIQUE below.
 - **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).
NOTE: BISCO's SELECT HV[®] ETCH may be used on cut or uncut enamel to increase mechanical retention. This etchant was designed for precise selective placement.
 - **TOTAL-ETCHING TECHNIQUE:** Prepare cavity. Wash thoroughly with water spray. Etch enamel and dentin using an etchant 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. If using the ACE delivery system, follow the ACE DISPENSER INSTRUCTIONS FOR USE for dispensation of **ACE UNIVERSAL PRIMER**. If using bottles, dispense an equal number of drops of **UNIVERSAL PRIMER** Part A & B (1:1 ratio) into a clean mixing well. Replace the cap(s) promptly to avoid evaporation of solvent.
3. Using a brush, mix adhesive for 5 seconds.
4. Apply two separate coats of **UNIVERSAL PRIMER**, scrubbing the preparation with a microbrush for 10-15 seconds per coat. Do not light cure between coats.
5. Evaporate excess solvent by strongly 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 **UNIVERSAL PRIMER** and repeat this step.
6. Continue with cementation.

C. Cementation

Cement Mixing Procedures:

1. Remove the syringe cap or mixing tip.
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 **DUO-LINK UNIVERSAL**. (See "TECHNICAL INFORMATION" Section for Working and Setting Time information.)

Cementation Procedures:

1. Apply cement to the bondable surfaces of the restoration. For inlays, it may be easier to apply the cement directly to the tooth preparation.
2. 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-lingual, mesio-lingual).
3. Optional: after excess cement has been removed each surface of the restoration may be cured for up to 40 seconds.

Cementation of Posts/Dowels:

Please follow the preparation instructions for use of the post to be used. The following procedure for cementation is recommended:

A. Treatment of Post/Dowel

1. Clean the post with alcohol and dry it with water-free and oil-free air.
2. Apply one to two coats of Z-PRIME Plus, uniformly wetting the entire post surface. Dry with an air syringe for 3-5 seconds. Z-PRIME Plus is recommended for bonding all metal, oxide-ceramic, and composite/fiber posts.

B. Preparation of Root Canals

1. Isolate the area and treat the root canal endodontically as usual.
2. Clean and irrigate. Rinse with water, dry with paper tips.
3. If using the SELF-ETCHING TECHNIQUE, proceed directly to step #4. If using the TOTAL-ETCHING TECHNIQUE, etch the canal with phosphoric acid 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; proceed to step #4.
4. If using the ACE delivery system, follow the ACE DISPENSER INSTRUCTIONS FOR USE for dispensation of ACE **UNIVERSAL PRIMER**. If using bottles, dispense an equal number of drops of **UNIVERSAL PRIMER** Part A & B (1:1 ratio) into a clean mixing well. Replace the cap(s) promptly to avoid evaporation of solvent.
5. Using a brush, mix adhesive for 5 seconds.
6. With an endodontic brush, apply and scrub two separate coats of **UNIVERSAL PRIMER** into the canal. Do not light cure between coats.
7. Remove excess pooling of material with paper points and light suction. Strongly air dry. NOTE: The paper point step is important for removal of any pooled adhesive so that there is no interference in complete seating of the post.
8. Continue with cementation.

C. Cementation

Cement Mixing Procedures:

1. Remove the syringe cap or mixing tip.
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 **DUO-LINK UNIVERSAL**. (See "TECHNICAL INFORMATION" Section for Working and Setting Time information.)

Cementation Procedures:

1. Using the root canal mixing tip inject **DUO-LINK UNIVERSAL** into the canal. Start at the apical end of the canal and withdraw the tip slowly while keeping the tip in the cement to minimize voids.
2. Coat the apical end of the post/dowel with cement.
3. Seat the post/dowel into the canal gently and maintain firm pressure for 20-30 seconds once the post/dowel is seated.
4. Optional: after excess cement has been removed, light cure for 40 seconds from occlusal.

HYGIENE AND DISINFECTION

- Use of commonly available hygienic protective covering to avoid any contamination of the **DUO-LINK UNIVERSAL** auto-mix dual-syringes during the treatment is recommended.

STORAGE: Store **DUO-LINK UNIVERSAL** with **UNIVERSAL PRIMER** kit at room temperature or refrigerate (2C°/36F° - 25°C/77°F). See individual component labels for specific expiration dates. Refrigerate (2C°/36F°-8C°/46F°) **DUO-LINK UNIVERSAL** with **ACE UNIVERSAL PRIMER**. See individual component labels for specific expiration dates. Refrigerate (2C°/36F°-8C°/46F°) **ACE UNIVERSAL PRIMER** cartridge in its sealed pouch. Do not open pouch until ready to use. Allow Refrigerated **ACE UNIVERSAL PRIMER** cartridge to reach room temperature before use. If refrigerating a partially used cartridge, it should be kept in the ACE dispenser. Refrigeration is not required if the cartridge is depleted within sixty days.

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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