

Bisco

CE0459

RESINOMERTM

*Dual-
Cured*

Amalgam Bonding/Luting System

Instructions for Use



Bringing Science to
the *Art* of Dentistry™

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

RESINOMER™*

Amalgam Bonding/Luting System

GENERAL INFORMATION

RESINOMER is a dual-cured, 57% glass filled composite with viscosity and flow characteristics that make it ideal for bonded amalgam restorations, as a dental liner and as a luting cement. The hydrophilic monomers used in **RESINOMER** are based on ALL-BOND 2®* chemistry and promote adhesion to dental metals. Chemical adhesion occurs between the metallic surface and diarylsulfone dimethacrylate (DSDM), one of the monomers present in **RESINOMER**. The metal bonding capability provides an exceptional environment for bonded amalgam restorations. A tenacious mechanical bond is created as amalgam is condensed into the uncured **RESINOMER** layer. In addition to adhesive bonding, **RESINOMER** provides a highly effective seal against microleakage¹. **RESINOMER** is intended for use with 4th or 5th generation adhesives such as ALL-BOND 2, ALL-BOND 3®* or ONE-STEP®▲*/ONE-STEP PLUS. **RESINOMER**'s bond to ALL-BOND 2 produces resin adhesion that exceeds the cohesive strength of dentin².

INDICATIONS FOR USE

The principal uses of **RESINOMER** are:

1. Bonded Amalgam Restorations
2. Liner/Base under Direct/Indirect Restorations
3. Cementation of Metal-Based Restorations
4. Cementation of Fiber and Metallic Posts
5. Bonding Orthodontic Brackets

Precautions:

- Store in refrigerator when not in use. Allow refrigerated **RESINOMER** to reach room temperature before use.
- Avoid contact with the skin; unpolymerized resins may cause skin sensitization in susceptible persons. In case of contact, wash skin with soap and water.
- See individual component labels for specific expiration dates

1. CRA Newsletter, February 1994, Adhesives, Silver Amalgam.

2. Farah, J. W. (ed.) Adhesive Resin Cements, Dental Advisor 10:(4) 6-7, 1993.

* **RESINOMER** is a trademark of BISCO, Inc.

ALL-BOND 2, ALL-BOND 3 and ONE-STEP are registered trademarks of BISCO, Inc.

▲ Unlike ONE-STEP/ONE-STEP PLUS, not all one-bottle systems bond to self-cured or dual-cured materials. Check with manufacturer's instructions.

TECHNICAL INFORMATION

Precautions:

- Due to the unique chemistry of **RESINOMER**, refrigeration is necessary. Allow refrigerated **RESINOMER** to reach room temperature before use.

Individual Syringes:

- Working Time:** Minimum 3 min.
(At Room Temperature, 20°C/68°F-25°C/77°F)
- Setting Time:** Maximum 3 min. 20 sec.
(Intraoral, 37°C/98.6°F)

Dual-Syringes:

- Working Time:** Minimum 2 min.
(At Room Temperature, 20°C/68°F-25°C/77°F)
- Setting Time:** Maximum 3 min. 20 sec.
(Intraoral, 37°C/98.6°F)

INSTRUCTIONS FOR USE

BONDED AMALGAM RESTORATIONS

1. Rub the supplied wax stick onto the matrix band over the area that will be exposed to **RESINOMER** to prevent adhesion to the band.
2. Isolate tooth and prepare the cavity in a conservative manner. Clean the entire surface with a slurry of pumice and a disinfectant such as **CAVITY CLEANSER™*** or water.
3. Etch using an etchant, such as **UNI-ETCH®*** w/BAC or **ETCH-37™*** w/BAC, according to manufacturer's instructions.
4. Apply an adhesive, such as **ALL-BOND 2**, **ALL-BOND 3** or **ONE-STEP/ONE-STEP PLUS**, according to the manufacturer's instructions.

Precautions:

- The cement will set quickly once it comes in contact with the **ALL-BOND 2** primers on the tooth.
5. If using the dual-syringe delivery system, follow the enclosed **DUAL-SYRINGE INSTRUCTIONS** for dispensation and delivery of **RESINOMER**. If using individual syringes, mix equal amounts of **RESINOMER** base and catalyst into a uniform paste (10-15 seconds) until the paste is a uniform color.

* **CAVITY CLEANSER** and **ETCH-37** are trademarks of BISCO, Inc.
UNI-ETCH is a registered trademark of BISCO, Inc.

6. Apply a thin coat of **RESINOMER** to all internal surfaces of the preparation using a brush tip or a BISCO APPLICATOR*. Air-thin to spread **RESINOMER**, avoiding pooling on the floor or internal line angles of the preparation.
7. Triturate and condense amalgam into **RESINOMER**-lined preparation using traditional condensation procedures. Do not be concerned with displacement of **RESINOMER**.
8. Slightly overfill, condense and burnish amalgam over margins and begin carving as soon as possible. Finish carving before the amalgam has completely hardened. Burnish during and after carving to enhance the bond and seal the margins. A slight flash of amalgam onto the enamel surface is desirable and may be unavoidable due to the adhesive qualities of **RESINOMER**.
9. **OPTIONAL: RESINOMER** is dual-curable. To expedite the polymerization, light cure for 20 seconds.

NOTE: RESINOMER left on the mixing pad may appear not to set. This is due to oxygen inhibition of the polymerization process. Rest assured, **RESINOMER** will polymerize (set) in a normal fashion. The user can confirm this by placing a Mylar strip over the excess material on the pad; it will set within the specified period of time.

LINER/BASE UNDER DIRECT/INDIRECT RESTORATIONS

1. Isolate tooth and prepare the cavity in a conservative manner. Clean the entire surface with a slurry of pumice and a disinfectant such as CAVITY CLEANSER or pumice and water.
2. Etch using an etchant, such as UNI-ETCH w/BAC or ETCH-37 w/BAC, according to manufacturer's instructions.
3. Apply an adhesive, such as ALL-BOND 2, ALL-BOND 3 or ONE-STEP/ONE-STEP PLUS, according to the manufacturer's instructions.

Precautions:

- The cement will set quickly once it comes in contact with the ALL-BOND 2 primers on the tooth.
4. If using the dual-syringe delivery system, follow the enclosed **DUAL-SYRINGE INSTRUCTIONS FOR USE** for dispensation and delivery of **RESINOMER**. If using individual syringes, mix equal amounts of **RESINOMER** base and catalyst into a uniform paste (10-15 seconds) until the paste is a uniform color.

* BISCO APPLICATORS are distributed by BISCO, Inc.

5. Apply a thin coat of **RESINOMER** to the floor or desired internal area of the preparation using an instrument or a BISCO APPLICATOR. If using the **DUAL-SYRINGE**, you may also use the mixing tip provided.
6. Light cure **RESINOMER** for 30 seconds or allow to self cure (preferred method) for 5 minutes.
7. Proceed with restorative treatment.

METAL-BASED RESTORATION CEMENTATION

A. Tooth Preparation

1. Remove provisional restorations; clean the preparation and try-in the definitive restoration. If Eugenol-containing temporary cements were used, clean the preparation with pumice to remove all traces of the cement.

Precautions:

- The use of Eugenol may affect curing of some composite materials.
2. Etch using an etchant, such as UNI-ETCH w/BAC or ETCH-37 w/BAC, according to the manufacturer's instructions.
 3. Apply an adhesive, such as ALL-BOND 2, ALL-BOND 3 or ONE-STEP/ ONE-STEP PLUS, according to manufacturer's instructions.

Precautions:

- The cement will set quickly once it comes in contact with the ALL-BOND 2 primers on the tooth.

B. Cementation

1. Sandblast the internal surfaces of the restoration, rinse and dry.
2. Apply a metal primer to the internal surface of the restoration such as ALL-BOND 2 PRIMER B, ONE-STEP/ONE-STEP PLUS or ALL-BOND 3 Parts A and B and Z-PRIME™* Plus, according to manufacturer's instructions.
3. If using the dual-syringe delivery system, follow the enclosed **DUAL-SYRINGE INSTRUCTIONS FOR USE** for dispensation and delivery of **RESINOMER**. If using individual syringes, mix equal amounts of **RESINOMER** base and catalyst into a uniform paste (10-15 seconds) until the paste is a uniform color.
4. Fill the internal surface of the restoration with **RESINOMER** using an instrument or BISCO APPLICATOR. If using the **DUAL-SYRINGE**, you may also use the mixing tip provided.
5. Seat the restoration with passive pressure.

* Z-PRIME Plus is a trademark of BISCO, Inc.

6. Remove excess with a brush or instrument. Complete clean-up during the initial set or gel state.

FIBER AND METALLIC POST CEMENTATION

A. Post Space Preparation

1. Etch using an etchant, such as UNI-ETCH w/BAC or ETCH-37 w/BAC, according to manufacturer's instructions, and rinse with water.
2. Blot the canal dry with a large paper point, to remove excess moisture.
3. Apply an adhesive, such as ALL-BOND 2, ALL-BOND 3 or ONE-STEP/ ONE-STEP PLUS, according to the manufacturer's instructions.

Precautions:

- The cement will set quickly once it comes in contact with the ALL-BOND 2 primers on the tooth.
4. Blot the canal dry with a paper point; repeat with a new paper point until the paper point returns dry from the canal. This step is important for removal of any pooled primers to prevent interference in complete seating of the post.
 5. Light cure as necessary, according to manufacturer's instructions.

B. Post Cementation

1. Coat the post with adhesive and light cure, according to manufacturer's instructions.
2. If using the dual-syringe delivery system, follow the enclosed **DUAL-SYRINGE INSTRUCTIONS FOR USE** for dispensation and delivery of **RESINOMER**. If using individual syringes, mix equal amounts of **RESINOMER** base and catalyst into a uniform paste (10-15 seconds) until the paste is a uniform color.
3. Fill a UNIT-DOSE NEEDLE-TIP* with **RESINOMER** and inject it in the canal. Start at the apical end of the canal and withdraw the tip towards the pulp chamber. If using the **DUAL-SYRINGE**, you may also use the mixing tip provided and inject directly into the canal.
4. Seat the post into the canal gently and maintain firm pressure for 5-10 seconds once the post is seated.
5. Remove excess cement and allow to self cure (preferred method) for 5 minutes. As soon as cement has set, proceed with restorative treatment.

* UNIT-DOSE NEEDLE TIPS are distributed by BISCO, Inc.

BONDING ORTHODONTIC BRACKETS

1. Etch enamel surface to be bracketed using an etchant, such as UNI-ETCH w/BAC or ETCH-37 w/BAC, for 15-30 seconds. The area required to be etched is only slightly larger than the bracket base. Rinse well with water and air dry.
2. Apply **one** of the following to the etched enamel surface:
 - 1 coat of D/E RESIN* and thin with a stream of compressed air. Do not light cure.
OR
 - 2-3 coats of ALL-BOND 2 Primers A and B **OR** ALL-BOND 3 Parts A and B **OR** ONE-STEP/ONE-STEP PLUS. Air dry to evaporate the solvent. Light cure for 10 seconds.

Precautions:

- The cement will set quickly once it comes in contact with the ALL-BOND 2 primers on the tooth.
3. If using the dual-syringe delivery system, follow the enclosed **DUAL-SYRINGE INSTRUCTIONS FOR USE** for dispensation and delivery of **RESINOMER**. If using individual syringes, mix equal amounts of **RESINOMER** base and catalyst into a uniform paste (10-15 seconds) until the paste is a uniform color.
 4. Apply a small amount of **RESINOMER** to the retentive side of the bracket base.
 5. Place the bracket on the enamel surface with a slight rotational motion and position bracket appropriately. With an explorer or sharp scaler, press the bracket firmly against the enamel to express excess paste.
 6. Remove excess paste surrounding the bracket base with an explorer or scaler.
 7. Light cure **RESINOMER** for 30 seconds by placing the light probe at a 45° angle to the enamel/bracket interface.
 8. The bracket may be moderately loaded after light-curing **RESINOMER**.

* D/E RESIN is manufactured by BISCO, Inc.

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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