

*Bisco*

CE0459

# **PORCELAIN REPAIR KIT**

***OPAQUER  
PORCELAIN ETCHANT  
PORCELAIN PRIMER***

**Instructions for Use  
and  
Material Safety Data Sheet  
(MSDS)**



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.

**PORCELAIN REPAIR KIT**  
*Opaquer*  
**Porcelain Etchant (4% HF)**  
**Porcelain Primer**

**GENERAL INFORMATION**

**OPAQUER** is a specially formulated, resin-based opaquing agent used to mask dark shades of the metallic (non-precious, semi-precious and precious) framework of dental prostheses. While masking of the metal framework is necessary for pleasing aesthetics, it is not an easy task to successfully block the dark metal hue, yet not overly influence the subsequent shade of restorative materials (composite or porcelain). This requires a coloring agent with a delicate balance of opacities, hues and chromas. **OPAQUER** successfully accomplishes this balance to meet all opaquing requirements.

**OPAQUER** is a two component, dual-curable opaquing agent. An accurate shade of **OPAQUER** is accomplished by mixing an equal portion of the Catalyst and Base. To enhance placement and prevent slumping, the mixed opaquer can also be light-cured initially without affecting its complete chemical setting. The opaquer system is Bis-GMA resin based and compatible with most composite restorative materials.

**OPAQUER** is intended for use with 4<sup>th</sup> or 5<sup>th</sup> generation adhesives such as **ALL-BOND 2<sup>®\*</sup>**, **ALL-BOND 3<sup>®\*</sup>** or **ONE-STEP<sup>®\*</sup>/ONE-STEP PLUS**. When **OPAQUER** is used with a metal primer (**PRIMER B** of **ALL-BOND 2**, **ONE-STEP/ONE-STEP PLUS** or **ALL-BOND 3**) an extremely high bond strength is obtained between the metal and composite.

**PORCELAIN ETCHANT (4% HF)** improves the adhesive bond between porcelain and composite by increasing the surface area of the porcelain to be bonded. The effect is similar to sandblasting but is more controlled and effective. **PORCELAIN ETCHANT (4% HF)** will microscopically roughen any porcelain or glass surface.

The principal use of **PORCELAIN ETCHANT (4% HF)** is for etching porcelain prior to cementation of porcelain veneers, crowns, inlays and onlays and repair of porcelain restorations.

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

**PORCELAIN PRIMER** is a silane coupling agent in an alcohol and acetone base that is used to improve adhesion between porcelain and composite. Silane is a dual function monomer consisting of a silanol group that reacts with the porcelain surface, and a methacrylate group that co-polymerizes with the resin matrix of the composite. Silane coupling agents are known to enhance the wettability of glass substrates by composite resins, increase physical, mechanical and chemical bonding of composite to the porcelain, and yield a greater resistance to water attack at the bonding interface. Prior to applying silane, the porcelain must be etched with hydrofluoric acid (HF). This process allows the porcelain to become not only highly porous, but also highly receptive to the silane by creating reactive hydroxyl groups on the intaglio surface of the porcelain. The principal use of **PORCELAIN PRIMER** is for treating silica-based porcelain surface prior to application of a composite material, in order to improve the bond.

#### **Indications for Use:**

A light-cured restorative system especially designed for fractured porcelain restorations.

#### **Warnings:**

- Do not use this product until you have thoroughly read and understood these instructions.
- **PORCELAIN ETCHANT** is a severe eye irritant and tissue irritant. If accidentally splashed into the eye, flush with a copious amount of water and seek medical attention immediately.
- Injury may result if **PORCELAIN ETCHANT** is allowed to remain on the skin or mucosa for extended periods of time. Contact with other tissues: rinse spills immediately with a copious amount of water for several minutes.

#### **Precautions:**

- For intra-oral use, it is highly recommended that rubber dam isolation be used and that the patient be provided with protective eye wear.
- It is highly recommended that the operator wear protective eye wear and rubber gloves.
- Avoid contact with the skin; unpolymerized resins may cause skin sensitization in susceptible persons. In case of contact, wash skin with soap and water.
- Refer to individual component labels for specific expiration dates.

## TECHNICAL INFORMATION

### At room temperature (20°C/68°F - 25°C/77°F)

Working time: Minimum 30 sec

Setting time: Maximum 2 min 45 sec

Note: If a longer working time is desired, the following is suggested:

- a. Mix **OPAQUER** on the flat mixing pad (instead of in the mixing well) and continue stirring to prolong gelation. Stirring creates an air inhibition effect.
- b. Chill one or both of the **OPAQUERS** in the refrigerator prior to use. The low temperature will retard the setting reaction.

### PORCELAIN REPAIR KIT INSTRUCTIONS FOR USE

1. Isolate the area to be repaired with a rubber dam.
2. BISCO **BARRIER GEL** should be placed on gingival tissue that may be exposed after the rubber dam is placed and to protect areas where etching is not desired. Care must be taken to avoid having the **PORCELAIN ETCHANT (4% HF)** contact glazed porcelain surfaces since these surfaces will lose their gloss.

**HINT:** Refer to manufacturer's instructions, not all ceramic systems are etchable.

3. Sandblast exposed metal and/or surrounding porcelain area to be repaired for 1-2 seconds or abrade with a coarse diamond bur. Rinse with water and air dry. Surfaces should be dry prior to application of etchant.
4. Apply **PORCELAIN ETCHANT (4% HF)** to the dry porcelain surface to be repaired for 5 to 6 minutes. Continue to observe the etch site throughout the entire procedure.
5. Rinse with a copious amount of water to remove etchant and air dry. The etched surface should appear dull and frosty. The procedure can be repeated but this is usually not necessary if instructions are carefully followed.
6. Apply 2 coats of **PORCELAIN PRIMER** to the etched porcelain surface allowing to dwell (soak) for 30 seconds. Dry with air syringe.

7. Dispense one drop each of ALL-BOND 2 PRIMERS A & B or ALL-BOND 3 Parts A & B into a mixing well and apply two coats over the prepared metal and porcelain surfaces. Air dry.

OR Apply 1 coat of ONE-STEP/ONE-STEP PLUS to prepared metal and porcelain surfaces. Air dry thoroughly. Light cure for 10 seconds.

**Precautions:**

- Not all one-bottle systems bond to self-cured or dual-cured composites. Check with manufacturer's instructions.
8. Shake **OPAQUER** Base and Catalyst bottles very well before dispensing. Dispense one drop each of Catalyst and Base onto a mixing pad, and mix with a brush tip.
  9. Apply a thin coat of **OPAQUER** only to the metal surface and allow to self cure. Light cure for 5-10 seconds if slumping occurs. An oxygen-inhibited layer will be present on the surface of the **OPAQUER** once the curing process has completed. This is normal for this material. Composite may be bonded directly to this surface.
  10. Proceed with layering and finishing procedures using a composite such as **ÆLITE™\*** All-Purpose Body.

**Precautions:**

- Working and setting time will both be accelerated in the warm intraoral environment.

\* **ÆLITE** is a trademark of BISCO, Inc.

**STORAGE:** Store at room temperature (20°C/68°F - 25°C/77°F).

**WARRANTY:** BISCO, Inc. recognizes its responsibility to replace products if proven defective. BISCO, Inc. does not accept liability for any damages or loss, 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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