

## Directions

Adherence Dual-Cure Composite Cement is a visible light cured, dual cured or self cured high strength resin cement compatible with light and dual cure dentin/enamel adhesive systems including Confi-Quick One Part Dentin/Enamel Primer/Adhesive. (Bonding Agent) This resin cement is used to adhesively bond and lute indirect restorations to tooth structure. This composite may not be compatible with some self etching systems, therefore, do not mix systems. Directions, composite analysis, MSDS Sheets and Restoration Selection and Cementation Guide may be found at [www.psidental.com](http://www.psidental.com).

Caution: U.S. federal law restricts this device to sale by or on the order of a dentist.

### Indications:

1. Adhesive cementation of ceramic, porcelain, composite inlays, onlays, veneers and crowns.
2. Adhesive cementation of all metal crowns, bridges, inlays/onlays including precious, semi-precious and non-precious metals.
3. Adhesive cementation of PFM (porcelain fused to metal) crowns and bridges.
4. Adhesive cementation of prefabricated and cast posts.
5. Adhesive cementation of resin-bonded retainer bridges (Maryland bridges).

### Contraindications:

1. Mini-Kit should not be used as a base, liner, core buildup or filling material.
2. Resin Cement and One Part Dentin/Enamel Primer/Adhesive are contraindicated for use with patients who have a history of severe allergic reaction to methacrylate resins.
3. Resin Cement and One Part Dentin/Enamel Primer/Adhesive are contraindicated for direct application to dental pulp tissue (direct pulp capping).
4. 37% Tooth Etchant is contraindicated for use on soft tissue including oral mucosa, skin, eyes and dental pulp tissue

### Warnings:

- Resin cements and Bonding Agents contain polymerizable monomers which may cause skin sensitization (allergic contact dermatitis) in susceptible individuals. Wash thoroughly with soap and water after contact, If skin sensitization or other allergic reaction occurs, discontinue use.
- Resin cements and Bonding Agents contain methacrylates which may be irritating to the eyes. In case of contact with the eyes, rinse immediately with plenty of water and seek medical attention. Do not take internally.
- Flammable: Porcelain Primer (Silane Coupling Agent) and Bonding Agents contain alcohol and/or acetone, keep away from sources of ignition. Do not breathe vapor.
- 37% Tooth Etchant contains phosphoric acid which can cause burns of soft tissues. Avoid contact with oral soft tissues, eyes and skin. If accidental contact with the eyes occurs, immediately rinse with plenty of water and seek medical attention. Do not take internally.

### Precautions:

- Eugenol containing materials should not be used in conjunction with this product because they may interfere with hardening and cause softening of the polymeric components of the material.
- Resin cements and Bonding Agents should be kept out of direct sunlight and stored in a well ventilated place at room temperature not exceeding 25C/77F.
- 37% Tooth Etchant, Porcelain Primer and Resin Cement should extrude easily. DO NOT USE EXCESSIVE FORCE. Replace original cap tightly after each use to avoid evaporation. Discard syringe needle tip after use.
- Esthetic Resin Cements, Porcelain Primer and One Part Dentin/Enamel Primer/Adhesive syringes should be capped immediately after use.

### Adverse Reactions:

Allergic contact dermatitis and other allergic reactions may occur in susceptible individuals.

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**If the Confi-Quick One Part Dentin/Enamel Primer/Adhesive is in the syringe as shown to left. Before placing the flocked syringe tip on the syringe, hold the syringe upright as shown, pull the syringe plunger back slightly in order to pull any material out of the cap and back into the syringe. The adhesive may be placed directly on the tooth following directions.**

## **Step by Step Instructions:**

The following preparatory steps apply to cementation of all types of indirect restorations:

Following removal of the temporary restoration and any remaining temporary cement, clean enamel and dentin with a rubber cup and pumice or a non fluoride cleaning paste. Wash thoroughly with water spray and lightly air dry.

## **Shading Requirements**

If the luting resin will affect shade, select composite to shade tab requirements. The mini-kit will contain a dominant hue and a modifying hue. The dominant hue may be the only shaded composite necessary. If a try in with the dominant hue indicates a need to alter the composite shade, add a small amount of modifying composite until the mixed composite closely matches the cervical 1/3 of the shade tab. Because tooth color, thickness and opacity of the restoration affects the final shade, it may be necessary to further adjust the composite mix lighter or darker accordingly. If catalyst is added, the shade will be slightly lighter. Veneers should not need the catalyst. Do not add catalyst during try-in stage. Catalyst should be added just prior to inserting the restoration. Don't expose composite to direct lighting source during try-in.

## **Treatment of the Restoration**

Check the fit and esthetics of the restoration. Use water for retention. Patient should not close on the restoration.

Occlusal adjustment of inlays/onlays is best accomplished after final cementation.

The internal surface of the restoration should be clean and dry prior to cementation. Organic debris accumulated during try-in may be removed by cleaning with alcohol or acetone followed by cleaning in water in an ultrasonic cleaner. If acetone or other strong solvent is used, the restoration will need to be resilanated. The surfaces of porcelain or ceramic restorations may be further cleaned by using (Tooth Etchant) a phosphoric acid etchant followed by thorough rinsing and drying.

## **Metal Restorations**

Microetching (sandblasting with 50 micron alumina) the internal surfaces of a metal restoration is recommended. Tin plating of high noble or gold metals is not required but will augment retention.

Maryland Bridges: The use of 180° wrap of wings, rest seats, parallelism and slots or grooves is necessary for appropriate retention. The metal wings of the Maryland Bridge should be perforated, electrolytically etched, porcelain chemically etched with Ceram Etch or mechanically sandblasted with 50 micron alumina. Etch should be verified under a microscope. For cementation, use Dual Cure directions.

## **Ceramic/Porcelain/Composite Restorations**

Microetching (sandblasting) with 50p alumina or hydrofluoric acid chemical etching (PSI Ceram Etch) of the internal surfaces of a ceramic restoration is recommended. If the restoration has not been silane treated by the laboratory or if the internal silanated surface has been disturbed during try-in, apply PSI Porcelain Primer according to the instructions.

Zirconia core or aluminous core restorations should NOT be treated with porcelain primer, unless the core surface has been treated with RF plasma spraying (hexamethyldisiloxane) or Rocatec (3-M) treatment, by tribochemical reaction, which coats the surface of the zirconia with small particles of silicium oxide. These will bind to the silanization agent and establish a chemical bond to the restoration and the adhesive resin cement.

## **Restoration Silanation (Porcelain Primer)**

Treat inner surface of restoration as described above. Prior to applying the silane, clean the internal surface of the restoration as described above. Air-dry the internal surface of the restoration.

Attach supplied needle tip to end of the Porcelain Primer syringe. Gently apply pressure to syringe plunger. DO NOT USE EXCESSIVE FORCE. Silane agent should express easily, one drop at a time. Directly apply the silane to the etched, clean internal surface of the restoration and allow to air dry. Drying time will be reduced and bond may be enhanced by using hot air to dry.

## **NOTE:**

Avoid application of the silane to the external surface of the restoration. Contact with the external surface will cause bonding of the cement resin to the external surface, complicating clean-up and necessitating removal of the glazed portion of the external surface of the restoration.

If silanated surface becomes contaminated, clean surface with alcohol or acetone, allow to air dry and repeat application as outlined above.

## **Tooth Conditioning/Dentin Pretreatment**

1. Following restoration try-in, rinse preparation thoroughly with water spray and air dry. Isolate tooth. When dentin is involved, **apply liner only over near exposure areas.**

2. Apply 37% Tooth Etchant.

Attach disposable needle tip to end of syringe. Gently extrude Tooth Etchant on enamel margins, If a **total etch technique** is desired, continue to extrude Tooth Etchant onto dentin surfaces. Condition enamel for at least 30 seconds and dentin for 15 seconds or less. Enamel should appear frosted. **(OVER)**

3. Rinse and blot dry. Remove gel with aspirator tube and/or vigorous water spray and rinse conditioned areas thoroughly for at least 10 seconds. Blot dry conditioned areas with a cotton pellet. **When preparation is in enamel, tooth surface should be completely dry. Use a gentle air stream.**

**When a total etch technique is being used,** for best results, saturate a cotton pellet and remove excess water from the pellet by blotting it on a gauze pad before using the pellet to blot the tooth. Blot drying provides the correct amount of "wetness" on the tooth surface by removing all excess moisture and avoiding desiccating the tooth surface. Do not rub the tooth surface when blot drying. **(OVER)**

Dentin should be blotted until there is no pooling of water, leaving a moist, glistening surface. Once the surfaces have been properly treated, they must be kept uncontaminated. If salivary contamination occurs, repeat procedure beginning at step 1.

### **VENEER CEMENTATION - LIGHT CURED**

Before proceeding refer above for Treatment of the Restoration and Tooth Conditioning/Dentin Pretreatment

a. (If preparation is primarily in dentin.) Use the Confi-Quick One Part Dentin/Enamel Primer/Adhesive and apply directly by attaching the flocked syringe tip to the syringe or use it from the bottle, if supplied. **(Use Enamel Bonding Agent if preparation is primarily in enamel. Tooth surface should be completely dry).**

b. (If preparation is primarily in dentin.) Keep the tooth moist and using the flocked tip syringe, vigorously apply a coat of One Part Dentin/Enamel Primer/ Adhesive. Allow acetone to evaporate by drying gently with air. Apply additional coats until the surface appears uniformly glossy. **(If using Enamel Bonding Agent, tooth should be completely dry. Apply a single coat of Enamel Bonding Agent to prepared tooth surfaces. Excess should be removed. Do not allow pooling. Do not contaminate with any moisture.)**

c. Cure adhesive for 10-20 seconds using a curing light. *Do not contaminate with any moisture.*

d. Apply a single coat of Bonding Agent adhesive to the internal bonding surface of the restoration. Immediately air dry for 5 seconds and light cure. *Do not allow resin to pool. If layer is thin, curing will not affect fit.*

### **Cementation Technique**

a. Dispense the desired shade of Resin Cement base paste from the syringe (or mixed shade as explained above) directly onto the veneer. Protect cement from exposure to light.

b. Seat the loaded veneer in place. Remove excess from the gingival margin with a blunt instrument. Light cure the gingival portion only to tack restoration in place (10 seconds or less) with small tipped light. Remove any excess from proximal and lingual margins.

Placement of mylar strips between preparation and adjacent teeth prior to seating veneer aids in isolation and in excess cement clean up. After removing gingival excess and tacking veneer in place, remove interproximal excess cement by pulling mylar strip towards the facial, i.e., from tooth to restoration surface.

c. Light cure 20 seconds each from the buccal, lingual, and interproximal aspects.

d. Following the light cure check and adjust occlusion as necessary. To insure marginal seal, apply bonding agent around margins, floss, and light cure. Proceed to Finishing and Polishing.

### **CROWN and BRIDGE INLAY/ONLAY CEMENTATION. DUAL CURED**

Before proceeding refer above for Treatment of the Restoration and Tooth Conditioning/Dentin Pretreatment.

a. Use the Confi-Quick One Part Dentin/Enamel Primer/Adhesive in the flocked syringe and apply generous amounts directly to the preparation, thoroughly wetting all tooth preparation surfaces. Allow acetone to evaporate. This surface should remain fully wet for 20 seconds. If supplied in a bottle, place several drops in a mixing well and apply with a soft brush in same manner as described.

b. Remove excess solvent by gently drying with clean, dry air from a dental syringe for at least 5 seconds. Surface

should have a uniform glossy appearance. If not, repeat application and air dry.

c. Cure adhesive for 10-20 seconds using a curing light. *Do not contaminate with any moisture.*

d. Apply a single coat of Bonding Agent or Dentin/Enamel Primer/Adhesive to the internal bonding surface of the restoration. **Do not pool.** Air thin and/or dry. Light cure for 10 seconds.

### **Cementation Technique**

a. Dispense the desired shade of Resin Cement base paste from the syringe onto a clean mixing pad. Dispense an equal amount of catalyst paste. Mix together thoroughly for 10-20 seconds. Do not mix more than will be used for a single restoration.

b. Apply a uniform layer of dual cure resin mixture on the entire internal surface of the restoration. For inlays/onlays, it may be helpful to apply a thin layer of cement to the internal portions of the tooth preparation to avoid any porosity or voids. At room temperature, the mixture offers a working time of at least 2 min 30 seconds.

c. Seat the restoration with gradual pressure. A gentle rocking or vibratory motion may be helpful to insure optimal seating.

d. Remove gross excess from marginal areas. Use an instrument such as a blunted explorer, periodontal probe or a clean, dry brush tip. Restoration should not be moved or torqued during removal of gross excess cement. Special attention should be paid to interproximal areas using floss to remove excess cement. (A 10 second light "pre-cure" of excess cement at the margins will cause cement to "gel", allowing easier cleanup.) Apply moderate and consistent pressure to the restoration throughout the self-cure set time of approximately 6 minutes from the beginning of mixing.

e. Once stabilized, light cure all marginal areas of the restoration for 20 seconds from each direction - buccal, lingual and occlusal.

f. Following the self-cure set, check and adjust occlusion as necessary. To insure marginal seal, apply bonding agent around margins, floss, and light cure. Proceed to Finishing and Polishing section.

### **Endodontic Posts**

Before proceeding refer above for Treatment of the Restoration and Tooth Conditioning/Dentin Pretreatment

a. Place 2-3 drops of One Part Dentin/Enamel Primer/Adhesive directly into a clean well or use flocked syringe for direct application.

b. Apply One Part Dentin/Enamel Primer/Adhesive to post preparation with a brush or flocked syringe, being sure to apply generous amounts to the preparation orifice. A paper point pre-wetted with the adhesive may aid in bringing the adhesive mixture down to the deepest portion of the preparation. Maintain contact of adhesive with tooth structure for at least 20 seconds.

c. Air dry treated post preparation with air syringe. Use of clean, dry paper points may aid in thorough removal of acetone in post space. Surface should have a uniform glossy appearance. If not, repeat application and air dry. Be sure there is no pooling. Light cure for 20 seconds.

d. Apply a single coat of One Part Dentin/Enamel Primer/Adhesive to the post with the same brush or flocked syringe followed by gentle air drying for 5 seconds. Light cure for 20 seconds.

### **Cementation Technique**

a. Dispense the desired shade of Resin Cement base paste from the syringe onto a clean mixing pad. A light base shade e.g., Light Universal will allow maximum light transmission. Dispense an equal amount of catalyst paste. Mix the cement for 10-20 seconds.

**As with any dual cure resin cement system, the working time is shortened.**

b. Spread mixed Resin Cement components on surface of post and/or into the post preparation with a syringe tip, Lentulo Spiral or metal file.

c. Seat post immediately. Clean up excess with appropriate instruments. A 10 second light exposure "pre-cure" of excess cement at the margins will cause cement to "gel", allowing easy cleanup.

d. Stabilize post until cement sets. Apply moderate and consistent pressure to the restoration throughout the self-cure

set time of approximately 6 minutes from the beginning of mixing. Light cure the cemented post for 20 seconds.

Proceed with core build-up and/or preparation.

### **Finishing and Polishing**

Removal of resin flash is best accomplished with a finishing system including points, cups and discs. Polish final restoration using Polishing Paste and a wet polishing system.