BISCO

PRODUCT SPOTLIGHT

a REVEAL

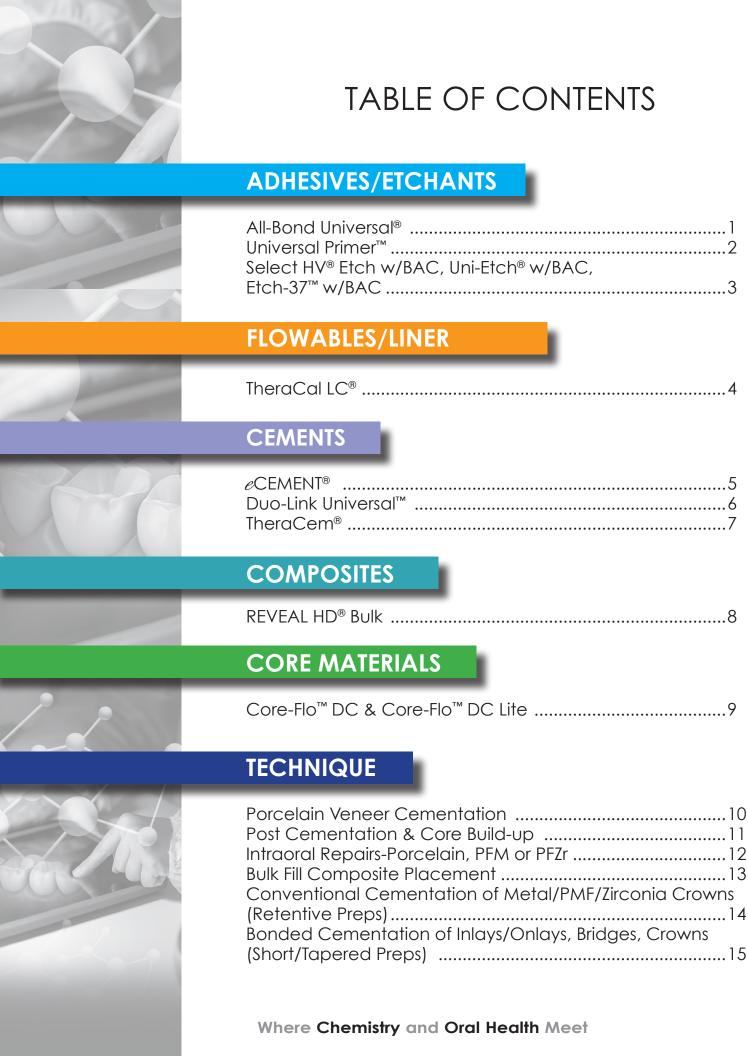
REVERNING HD Bulk



REVEAL

HD Bull

BISCO



All-Bond Universal® •

Light-Cured Dental Adhesive

All-Bond Universal is the culmination of over 30 years of adhesive research at BISCO. As a universal adhesive it can be used with both direct and indirect restorations and is formulated to be compatible with light-, dual- and self-cured materials. The versatility of All-Bond Universal makes it an indispensable part of any dental practice.

UNIQUE BENEFITS

- Not technique sensitive; use on wet, dry, or moist tooth structure
- Impressive bond strength to ALL substrates
- > Ideal chemical balance for both totaland self-etch adhesion from one bottle
- Virtually no post-operative sensitivity
- No activator required

Dentistry courtesy of Tyler Lasseigne, DDS, CDT



1. Apply Z-Prime™ Plus



2. Apply All-Bond Universal



3. Apply Duo-Link Universal™

See pages 10, 13, and 15 to reference technique.

The First TRUI Y **UNIVERSAL** Dental Adhesive



Clinical Significance:

Other single bottle, universal adhesives may need more than 1 bottle for indirect restorations, but with ALL-Bond Universal, NO activator is required

ORDERING INFORMATION

Bottle

All-Bond Universal Standard Kit B-72020K All-Bond Universal (6ml) B-7202P

Unit-Dose Packages

All-Bond Universal

Unit-Dose (50pk) B-73050K

All-Bond Universal

Unit-Dose (100pk) B-73100K



PRODUCT

ADHESIVES



Clinical Significance:

A dual-cured adhesive designed to be used without having to cure the adhesive layer under indirect restorations

ORDERING INFORMATION

Universal Primer Part A & B Set (6ml ea.)

B-4110P

Universal Primer™

Dual-Cured Adhesive

Universal Primer is a low film thickness, dualcured adhesive/primer designed for the dentist who prefers not to light cure the adhesive layer under indirect restorations.

UNIQUE BENEFITS

- Can be used with total-etch, self-etch, or selective-etch techniques
- Clinical evaluation confirms the ease-ofuse, with virtually no post-operative
- Low film thickness (<5µm)
- No light-curing necessary when used with dual-cure or self-cure restorative material

Dentistry courtesy of Ross Nash, DDS, FAACD



1. Tooth preparation



2. Apply Universal Primer



3. Apply Duo-Link Universal™



4. Final restoration

See pages 10, 11 and 15 to reference technique.

Select HV® Etch w/BAC, Uni-Etch® w/BAC, Etch-37[™] w/ BAC

Phosphoric Acid Etchants with Benzalkonium Chloride (BAC)

SELECT HV ETCH is a 35% high-viscosity phosphoric acid etchant with BAC. It is specifically formulated for pinpoint placement to etch enamel when using a self-etch adhesive.

UNI-ETCH w/BAC and ETCH-37 w/BAC are 32% and 37% semi-gel phosphoric acid etchants with BAC. They are specifically formulated to be easily applied to larger surface areas and rinsed cleanly with no residue.



Clinical Significance:

For etching tooth structure prior to bonding

UNIQUE BENEFITS

Contains benzalkonium chloride (BAC), an antimicrobial agent. In-vitro research shows it is effective against Streptococcus mutans¹.

NOTE: Inclusion of BAC has not been shown to correlate with a reduction in secondary decay in patients. In-vivo clinical studies to evaluate the effects of BAC on oral bacteria or caries have not been performed.

Dentistry courtesy of Dr. Michael Morgan



Select HV Etch w/BAC demonstrating pin-point placement on enamel

ORDERING INFORMATION

Select HV Etch w/BAC

Bulk Syringe Kit E-59200K **Bulk Syringe Refill (30ml)** E-59160P 4 Syringe Package (5g ea.) E-59110P

Uni-Etch w/BAC

Bulk Syringe Refill (30ml) E-56621P 4 Syringe Package (5g ea.) E-5502EBM Bulk Bottle (30g) E-5637EB

Etch-37 w/BAC

Bulk Syringe Refill (30ml) E-56741P 4 Syringe Package (5g ea.) E-5503EBM Bulk Bottle (30g) E-5638EB



¹ Dr. Daniel Chan, University of Texas Health Science Center at San Antonio Dental School. Residual Effect of 1 and 2% Benzalkonium Chloride Incorporated into an Etchant on the Susceptibility of Actinomyces viscosus T14V. 1993



Clinical Significance:

DENTAL ADVISOR

TOP AWARD

PULPAL

PROTECTANT

Dental PRODUCT

RECOMMENDED

PRODUCT

The proprietary formulation of TheraCal LC consists of stable and durable material as a liner

ORDERING INFORMATION

TheraCal LC 4-Syringe Pack H-33014P TheraCal LC Syringe (1g) H-3301P

→ TheraCal LC[®]

Resin-Modified Calcium Silicate Pulp Protectant/Liner

TheraCal LC is a light-cured resin modified calcium silicate designed to protect and seal the pulp for both direct and indirect pulp capping procedures.

UNIQUE BENEFITS

- Calcium release stimulates1* hydroxyapatite and secondary dentin bridge formation^{2,3}
- Alkaline pH promotes healing^{2,4}
- Forms a protective seal^{5,7,8}
- Protects and insulates the pulp^{5,6}
- Moisture tolerant¹ and radiopaque can be placed under restorative materials and cements

Dentistry courtesy of Dr. Ross Nash



1. Distal-occlusal caries present on an asymptomatic mandibular first premolar



3. Direct placement of TheraCal LC as an indirect pulp cap on entire pulpal



2. Incomplete excavation of caries leaving affected dentin without exposing the pulp



4. 1 mm layer of TheraCal LC after light-cure for 20 seconds

See page 13 to reference technique.

- * Bisco has, on file, the calcium release data for Theracal LC.
- 1. Gandolfi MG, Siboni F, Prati C. Chemical-physical properties of TheraCal,
- a novel light-curable MTA-like material for pulp capping . International Endodontic Journal. 2012 Jun;45(6):571-9.
- 2. ADA definitions for direct and indirect pulp capping at: www.ada.org/en/publications/cdt/glossary-of-dental-clinical-and-administrative-ter
- 3. Apatite-forming Ability of TheraCal Pulp-Capping Material, M.G. GANDOLFI, F. SIBONI, P. TADDEI, E. MODENA, and C. PRATI J Dent Res 90 (Spec Iss A): abstract number 2520, 2011 (www.dentalresearch.org)
 4. Okabe T, Sakamoto M, Takeuchi H, Matsushima K (2006) Effects of pH on mineralization ability of human dental pulp cells. Journal of Endodontics 32, 198-201.
- 5. Sangwan P; Sangwan A; Duhan J; Rohilla A. Tertiary dentinogenesis with calcium hydroxide: a review of proposed mechanisms. Int Endod J. 2013; 46(1):3-19
- 6. Selcuk SAVAS, Murat S. BOTSALI, Ebru KUCUKYILMAZ, Tugrul SARI. Evaluation of temperature changes in the pulp chamber during polymerization of light-cured pulp-capping materials by using a VALO LED light curing unit at different curing distances. Dent Mater J. 2014;33(6):764-9.
- 7. Cantekin K. Bond strength of different restorative materials to light-curable mineral trioxide aggregate. J Clin Pediatr Dent. 2015 Winter;39(2):143-8.
- 8. Mechanical Properties of New Dental Pulp-Capping Materials Over Time. M. NIELSEN, R. VANDERWELE, J. CASEY, and K. VANDEWALLE, USAF, JBSA-Lackland, TX,, J Dent Res 93(Spec Iss A): 495, 2014 (www.dentalresearch.org)

eCEMENT® •——

Adhesive Cementation System for Lithium Disilicate Restorations

The CEMENT system is indicated for the luting of lithium disilicate (e.g. IPS e.max**) veneers, inlays, onlays, crowns, bridges and all CAD/CAM blocks and pressable ingots.

UNIQUE BENEFITS

- > Universal and versatile
- **Easy** removal of excess cement
- Low film thickness
- > Radiopaque

Courtesy of Adamo E. Notarantonio, DDS



1. Apply All-Bond Universal



2. Remove excess cement



3. Final restorations

See page 10 and 15 to reference technique.

*IPS e.max is a registered trademark of IVOCLAR VIVADENT, Inc. eCEMENT is a registered trademark of BISCO, Inc.
There is no sponsorship, affiliation or connection between BISCO, Inc. and IVOCLAR VIVADENT, Inc.



Clinical Significance:

The <code>CEMENT</code> kit offers the clinician a convenient, all in one approach to cementing IPS e.max** indirect restorations with <code>CEMENT</code> light-cured and dual-cured cements, Porcelain Primer, All-Bond Universal*, Porcelain Etchant and Select HV* Etch

ORDERING INFORMATION

System Kit	C-52400K
A1 LC Syringe (4.5g)	C-52010P
Translucent LC Syringe (4.5g)	C-52120P
Milky Bright LC Syringe (4.5g)	C-52230P











Duo-Link Universal™

Resin Luting Cement

The Duo-Link Universal Kit is an adhesive cement system that contains all the components needed for cementation of indirect restorations*, including primers for restoration treatment.

UNIQUE BENEFITS

- Highly radiopaque with easy clean-up
- Ideal for all CAD/CAM restorations



Duo-Link Universal Kit with All-Bond Universal





ORDERING INFORMATION

System Kit with All-Bond Universal A-19620K

System Kit with **Úniversal Primer** A-19710K

Universal Dual-Syringe (8g) A-19030P

Milky White

Dual-Syringe (8g) **A-197MWP** Courtesy of Darren D. Simpson, DDS



1. Duo-Link Universal dispensed on the crown



2. All-Bond Universal® applied, air dried, and light cured.



3. Restoration seated. Excess cement peeled away



4. Final restoration

See page 15 to reference technique.

*It is recommended to use BISCO's CHOICE™ 2 for veneer cementation.

THE FUTURE IS HERE with the "NEXT GENERATION CEMENT"

TheraCem®.

Self-Adhesive Resin Cement

TheraCem is a dual-cured, calcium and fluoridereleasing, self-adhesive resin cement indicated for luting crowns, bridges, inlays, onlays and posts (prefabricated metal/non-metal/fiber posts).

UNIQUE BENEFITS

- Continuous calcium and fluoride release¹
- Transitions from acidic to alkaline pH in minutes²
- Specially formulated to allow for quick and easy clean-up
- A high degree of conversion ensures a higher physical strength
- Easy to identify on radiographs for quick and effective diagnosis
- Easy auto-mix, dual-syringe provides a consistent mix for immediate delivery

Courtesy of Joseph Kim DDS, JD, FAGD, FICOI



1. Cleaned and prepared



2. TheraCem is used



3. TheraCem being cleaned up



4. Inspected margins

with no priming or etching required

Clinical Significance:

ORDERING INFORMATION

Natural Dual-Syringe (8g)

D-46311P







See page 14 to reference technique.

1. Gleave CM, Chen L, Suh BI. Calcium & fluoride recharge of resin cements. Dent Mater. 2016 (32S):e26. 2. New Self-adhesive Resin Cement With Alkaline pH. Chen L, Gleave C, Suh B, J Dent Res96(A):#286, 2017.



Clinical Significance:

Confidently and predictably cure in 5-6 mm increments*, utilizing the desired bulk-filling technique to save time while still ensuring a high-quality restoration.

ORDERING INFORMATION

REVEAL HD Bulk

H-93030K **Unit-Dose Kit**

REVEAL HD Bulk

H-93010K Syringe Kit

REVEAL HD Bulk Unit-Dose (25 pk)

A1 H-9332A1P A2 H-9332A2P **A3** H-9332A3P H-9332B1P

REVEAL HD Bulk Unit-Dose (50 pk)

A1 H-9334A1P A2 H-9334A2P H-9334A3P **A3 B1** H-9334B1P

REVEAL HD Bulk Syringe (3g)

A1 H-931A1P **A2** H-931A2P **A3** H-931A3P **B1** H-931B1P

REVEAL HD® Bulk

Light-Cured Bulk Fill Composite

REVEAL HD Bulk is optimized to allow for easier, faster posterior restorations by combining superior levels of handling, placement, and depth of cure. The exceptional ease-of-use allows for simple and convenient placement of the composite in the prep, while the categoryleading depth of cure ensures a solid restoration from the top-down so you can cure with confidence.

UNIQUE BENEFITS

- Category-leading depth of cure (5-6 mm increments)*
- Exceptional radiopacity (4.0 mm Al)
- Superior compressive strength (370 MPa)
- Optimized handling and polishability via HD Filler Technology



See page 13 to reference technique.

* Varies based on the shade selected.

CORE MATERIALS

CORE-FLO™ DC / • CORE-FLO™ DC Lite

Dual-Cured Core Build-Up Material

CORE-FLO DC and CORE FLO DC Lite are dual-cured, fluoride-containing core materials that are ideal for core build-ups, post cementation and as a dentin replacement material.

UNIQUE BENEFITS

- High compressive & flexural strength
- Stackable (Core-Flo DC) or self-leveling (Core-Flo DC Lite) for optimal handling
- Easy to prepare cuts like dentin
- All-in-one procedure: cement post to core build-up
- Radiopaque

Dentistry courtesy of Dr. Jack D Griffin Jr.



1. Enamel etched with Select HV® Etch



2. Core-Flo DC Lite applied after use of Universal Primer™



3. Core-Flo DC Lite placed

See page 11 to reference technique.



Clinical Significance:

Dual-cured, flowable or low viscosity, core materials save time when cementing posts and building the core

ORDERING INFORMATION

Core-Flo DC Lite

System Kit with **Universal Primer** AB-17410K

Natural/A1

Dual-Syringe (8g) A-17801P

Opaque White

Dual-Syringe (8g) A-17803P

Core-Flo DC

System Kit with **Universal Primer**

M-23412K

Natural/A1

Dual-Syringe (8g) A-23011P

Opaque White

Dual-Syringe (8g) A-23012P

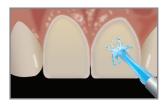


TECHNIQUE

Porcelain Veneer Cementation*



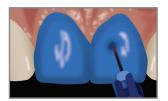
- 1. Prepare the internal surface of the restoration as instructed by the laboratory:
- a. Porcelain/Lithium Disilicate: If needed, etch the veneer with hydrofluoric acid (4% Porcelain Etchant or 9.5% Porcelain Etchant) according to the manufacturer's instructions.
- b. Apply a thin coat of silane (Porcelain Primer) to the internal surface. Wait for 30 seconds, or dry with (warm) air.



 Remove the temporary restorations and clean the preps with Cavity Cleanser™ and pumice slurry. Rinse thoroughly.



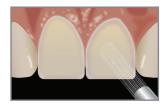
3. Try in the restorations using the corresponding shade of water-soluble try-in paste (¿CEMENT° Try-In or Choice 2™ Try-In Paste). Remove the veneers and either clean with etchant (Uni-Etch° w/BAC or Select HV° Etch w/BAC) and rinse thoroughly, or ultrasonicate in water or alcohol for 2-3 minutes. Dry the restorations.



 Isolate. Etch preps with Uni-Etch w/BAC or Select HV Etch w/BAC for 15 seconds, then rinse thoroughly.



 Dispense Universal Primer™ & mix (or All-Bond Universal®) in a mixing well. Apply 2 separate coats, agitating each coat for 10-15 seconds.



6. Gently air dry until there is no visible movement of the adhesive. Then thoroughly air dry with greater air pressure. The surface should appear shiny, otherwise apply additional coats.



7. Light cure for 10 seconds.



8. Apply a thin layer of HEMA-free resin (Porcelain Bonding Resin) to the internal surface of the veneer. Do NOT light cure.



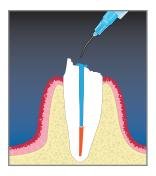
 Using a light-cured resin cement (CEMENT LC or Choice 2), fill the internal surface of the restoration with the cement.



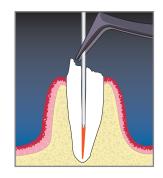
10. Seat with gentle, passive pressure and light-cure for 2-3 seconds to tack the veneer into place. Remove excess cement, then light cure each veneer for 40 seconds. $\ensuremath{^{*}}$ Refer to instructions for complete details.

See page 5 for more product information.

Post Cementation & Core Build-up*



1. If using the TOTAL-ETCHING TECHNIQUE, etch the canal with Uni-Etch® w/BAC or Select HV® Etch w/BAC for 15 seconds. If using the SELF-ETCHING TECHNIQUE, proceed to the next step.

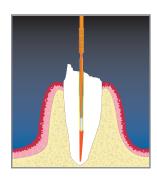


2. Clean and irrigate. Rinse canal with water. Remove excess water with a brief burst of air and paper point(s) to remove any pooled water from the canal.



TECHNIQUE

3. Dispense Universal Primer™. Mix adhesive.



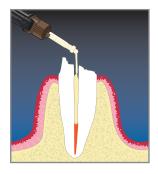
4. With an endodontic brush, apply and scrub 2 separate coats of Universal Primer into the canal. Remove excess pooling of material with paper points and light suction. Strongly air dry.



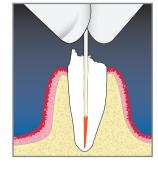
5. Determine the post length according to the manufacturer's instructions.



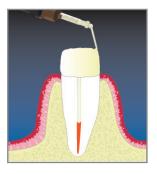
6. Coat the post with Universal Primer. Air dry.



7. Inject Core-Flo™ DC or Core-Flo™ DC Lite into the canal.



8. Coat the apical end of the post with Core-Flo DC or Core-Flo DC Lite. Seat the post into the canal gently.



9. Continue to express Core-Flo DC or Core-Flo DC Lite around the post and build up the core to the desired height and shape. Remove the excess material and light cure for 40 seconds.

^{*} Refer to instructions for complete details.



Intraoral Repairs Porcelain, PFM or PFZr*

1. Isolate the area to be repaired. Remove the glaze and bevel (45 degrees) the porcelain around the area to be repaired. Sandblast or abrade with a coarse diamond bur. Rinse with water and air dry.



2. Place Barrier Gel on the gingival tissue and porcelain to protect areas where etching is not desired.



3. Apply 9.5% Porcelain Etchant to the dry porcelain surface for 90 seconds. Suction the etchant with high volume evacuation, then rinse with water and air dry. The etched porcelain should appear dull and frosty.



4. Clean the etched porcelain with Uni-Etch® w/ BAC or Select HV® w/BAC and agitate for 20 seconds to remove any salts. Rinse and dry thoroughly.



5. Apply 1 coat of silane (Porcelain Primer or Bis-Silane™) to the etched porcelain and allow to dwell for 30 seconds. Dry with (warm) air syringe.



6. Apply 1 coat of Z-Prime™ Plus to the exposed metal/zirconia/alumina and dry with an air syringe for 3-5 seconds.



7. If metal masking is required, dispense one drop each of Catalyst & Base onto a mixing pad and mix with a brush tip. Apply a thin coat of Opaquer only to the metal surface. Allow to self cure, or light cure for 5 seconds.



8. Apply a thick layer of Porcelain Bonding Resin to the repair site. Spread a hybrid composite (Aelite™ All-Purpose Body) evenly over the surface and light cure, finish/polish.

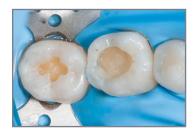


9. Place Bis-Cover™ LV to seal and glaze the composite.

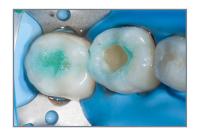
* Refer to instructions for complete details.

Bulk Fill Composite Placement Technique*

Select the desired type of shade of REVEAL HD® Bulk composite while the tooth is still moist.



1. Clean the preparation with a slurry of pumice and water or Cavity Cleanser™. Rinse and dry the preparation. Optional: When preparation is close to the pulp or pulp is exposed place up to 1 mm of TheraCal LC® onto visibly moist cavity floor. Light cure for 20 seconds.



2. Optional: Etch with Uni-Etch w/BAC or Select HV Etch w/BAC for 15 seconds, then rinse thoroughly.



3. Apply 2 coats of All-Bond Universal®, scrubbing for 10-15 seconds per coat (do not air dry or light cure between coats). Air dry for 10 seconds to evaporate solvent. Light cure for 10 seconds.



4. Using the selected shade, place REVEAL HD Bulk in one 5-6 mm** layer and light-

Optional: REVEAL HD Bulk can be used as a base under all light-activated restorative composites and used in a layering technique if desired.



5. Adjust occlusion, finish and polish.

- * Refer to instructions for complete details.
- ** Varies based on the shade selected.

See page 8 for more product information.

TECHNIQUE



Conventional Cementation of Metal/PFM/Zirconia Crowns (retentive preps)*



 Remove temporary restoration and clean prep with pumice and water. Rinse thoroughly and dry.



Try-in (to check occlusion and fit).
 After try-in, thoroughly rinse the restoration with water spray and dry.



3. Cover all bonded surfaces of the restoration with a layer of ZirClean™. Allow 20 seconds for the cleaning action of ZirClean to take affect, then thoroughly rinse with water spray and dry.

NOTE: Sandblast internal surface of restoration if necessary.



 Dispense TheraCem® into the internal surface of the restoration.
 Seat the restoration with gentle passive pressure and remove any excess cement.

HINT: To aid in the removal of excess cement, initially light-cure the margins for 2-3 seconds.



5. Light cure for 20-30 seconds, or allow to self cure.

* Refer to instructions for complete details.

Bonded Cementation of Inlays/Onlays, Bridges, Crowns (short/tapered preps)*



- 1. Prepare the internal surface of the restoration as instructed by the laboratory:
- a. Porcelain/Lithium Disilicate: Apply a thin coat of silane (Porcelain Primer) to the internal surface. Wait for 30 seconds, or dry with (warm) air.
- b. Metal/Zirconia/Indirect Composite: Apply one coat of Z-Prime[™] Plus to the internal surface of the restoration and air dry for 3-5 seconds.



2. Try-in the restoration, then clean the internal surface with (Uni-Etch® w/BAC/ Select HV® Etch w/BAC) etchant. Rinse thoroughly.



3. Remove the temporary restoration and clean the prep with Cavity Cleanser™ and pumice slurry. Rinse thoroughly.



4. If prep includes enamel, selectively etch enamel with Select HV® Etch w/BAC for 15 seconds. suction then rinse thoroughly.



5. Dispense Universal Primer™ and mix (or All-Bond Universal®) in a mixing well. Apply 2 separate coats, agitating each coat for 10-15 seconds.



6. Gently air dry until there is no visible movement of the adhesive. Then thoroughly air dry with greater air pressure. The surface should appear shiny, otherwise repeat step 5. Light cure for 10 seconds.



* Refer to instructions for complete details.

7. Using a dual-cured resin cement (Duo-Link Universal™ or eCement® Dual-Cure), fill the internal surface of the restoration and/or the prep with the cement. Seat with gentle, passive pressure and remove excess cement while holding restoration in place. Allow the cement to self-cure, or light-cure each surface of the tooth for 40 seconds.

See pages 2, 3, 5, and 6 for more product information.

TECHNIQUE



Visit www.bisco.com to learn more about BISCO products.

ADHESIVES

Universal Adhesive (Self-Etch or Total-Etch)

All-Bond Universal®

Universal Primer™

Self-Etch Adhesive

All-Bond SE®

Total-Etch Adhesives

All-Bond 3®

All-Bond 2®

One-Step® & One-Step® Plus

Supportive Products

Aqua-Prep™ F

Cavity Cleanser™

ZirClean™

SEMI-GEL ETCHANTS

Select HV® Etch w/BAC Etch-37™ w/BAC Uni-Etch® w/BAC

COMPOSITES

AELITE™ Aesthetic Enamel

AELITE™ All-Purpose Body

AELITE™ LS Posterior

AELITEFLO™ & AELITEFLO™ LV

BisFil[™] 2B

Characterization Tints

Reveal®

REVEAL HD® Bulk

Supportive Products

Fortify™

Modeling Resin

ESTHETIC SEALANT & LIQUID POLISH

BisCover™ LV

INSTRUMENTS

NB Composite Instruments

CEMENTATION

Choice[™] 2
Duo-Link Universal[™]

«CEMENT®
TheraCem®
Supportive Products
Intraoral Repair Kit
Porcelain Etchant
Porcelain Primer/Bis-Silane[™]
ZirClean[™]
Z-Prime[™] Plus

POST & CORE

Core-Flo™ DC Core-Flo™ DC Lite D.T. Light-Post® D.T. Light-Post® Illusion® X-RO® Light-Core™

PROVISIONAL MATERIALS

Pro-V®

PULP CAPPING/LINING MATERIAL

TheraCal LC®

Federal law restricts these devices to sale by or on the order of a licensed Dentist.

Not all products are available in all countries.



BISCO DENTAL PRODUCTS
1100 W. Irving Park Rd.
Schaumburg, IL 60193, USA
1-800-247-3368 • www.bisco.com

Rx Only

MC-52161CA

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