



Science and Dentistry. Bonded.



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Visit us at www.bisco.com for a complete product catalog!



This year we celebrate BISCO's 40th anniversary where "adhesion is our passion," and we dedicate ourselves to understanding and improving the ability to bond restorations. Our goal is to make your life easier, while helping you perform your best dentistry! We place tremendous value on sharing our research and scientific knowledge to benefit you and your practice, and offering award-winning products that provide reliable solutions to your clinical needs.

With BISCO, you are no longer alone. If you have a question about restorative protocols or are wondering which products to use (or maybe you are just looking for someone to talk to), give us a call. We're here to help!



BISCO HEADQUARTERS
SCHAUMBURG, ILLINOIS



DR. BYOUNG SUH
FOUNDER AND PRESIDENT
OF BISCO

July 2, 1981

- BISCO opens its doors in Lombard, IL. Founded by research chemist, Byoung In Suh, the company focuses on dental materials research and resin composites.



1986

- BISCO purchases its first SEM machine for adhesive development.
- Bisfil II is introduced as BISCO's first self-cured posterior composite.



1990

- As BISCO continues to grow, it relocates again to Itasca, IL.
- BISCO's first adhesive, All-Bond is launched with etchants All-Etch and Uni-Etch, the only phosphoric etchants on the market containing the proven antimicrobial agent, BAC.
- Cavity Cleanser is also introduced.



1993

- BISCO launches Fortify and Porcelain Bonding Resin.

1994

- BISCO launches Duo-Link, a dual-cured composite luting cement.

1997

- BISCO moves into its current residence in Schaumburg, IL; with a 91,000 sq. ft. facility featuring a 12,000 sq. ft. research lab, all aspects of the company take place under one roof.
- BISCO launches Aqua Prep and Core-Flo.



1998

- BISCO launches Aqua Prep F.

1999

- BISCO launches the Aestheti-Plus and Light-Post; Fortify Plus, Light-Core.

1988

- BISCO launches Choice veneer cement.

1985

- BISCO develops the industry's FIRST reinforced nanofil composite, BisFil-M. This chemistry will become the foundation for future BISCO composites. BisFil-P is also launched, a highly filled posterior composite.
- BISCO relocates to Downers Grove, IL.



1991

- BISCO launches the FIRST universal dental bonding system, All-Bond 2.



1996

- BISCO launches Aeliteflo, a flowable microhybrid composite.

1995

- BISCO hosts its 1st annual Adhesion Dentistry Symposium in Maui, Hawaii.
- BISCO releases the only true, universal, one-bottle bonding agent, One-Step.
- BISCO launches the C-POST, a carbon fiber post, Bisfil 2B, D/C Opaquers.



2001

- Per customer feedback, BISCO adds filler to One-Step and launches One-Step Plus.
- BISCO introduces Illusion, a universal aesthetic cementation system.
- Aelite LS, the first low shrink posterior composite is launched.
- BISCO launches the D.T. Light-Post, a double-tapered quartz fiber post.

2002

- BISCO introduces Tescera, an indirect composite system for the dental lab.

2003

- Byoung In Suh, receives the "American Academy of Cosmetic Dentistry Presidential Award" in recognition for his "Outstanding Contributions to the Art and Science of Cosmetic Dentistry".
- BISCO launches BisCover - an intraoral liquid polish and sealant that cures with NO oxygen inhibited layer. Also, Modeling Resin is introduced.

**2006**

- Dr. Byoung In Suh earns the 2006 "Eugene W. Skinner Award for Innovation in Dental Materials".
- BisCover LV is reformulated to be compatible with all LED, PAC and halogen curing lights.
- BisCem, BISCO's first self-adhesive resin cement is launched.
- Choice 2 enhances veneer cementation with a light-cured, color stable cement.
- 9.5% HF Etch is introduced to reduce etching time of porcelain restorations.

2007

- The D.T. Light-Post Illusion X-RO with color-on-command technology is introduced.
- ALL-BOND 3 and ALL-BOND SE become the next generation of BISCO adhesives.
- BISCO's PRO-V temporary line is introduced with: PRO-V Fill, PRO-V Flo.
- Reflexions posterior composite is launched.

2008

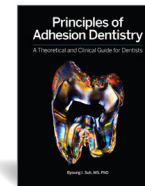
- BISCO launches its first comprehensive cementation system for indirect restorations: DUO-LINK SE Kit.
- Pro-V Coat helps to prevent temporaries from bonding to preps and facilitates the Immediate Dentin Sealing technique.

2012

- BISCO raises the bar with the industry's most versatile and compatible, one-bottle truly universal adhesive, ALL-Bond Universal.

2013

- Duo-Link Universal, the best dual-cured cement just got better with easy clean-up and higher radiopacity.
- Dr. Byoung In Suh publishes his book: Principles of Adhesive Dentistry.

**2016**

- TheraCem, a dual-cured self-adhesive cement with calcium and fluoride release.

**2017**

- Reveal HD Bulk, a bulk-fill posterior composite can be placed in up to 5mm increments.

2018

- Pro-V C&B and ZirClean are introduced.

2019

- The Thera family grows with the introduction of TheraCal PT for pulpotomy treatment.

**2005**

- Byoung In Suh becomes Dr. Byoung In Suh, receiving his Ph.D. in Dental Medicine from Tsurumi University in Yokohama, Japan.
- BISCO introduces BisCover LV, a low viscosity liquid polish that eliminates mixing of the original BisCover and the Viscosity Modifier, saving dental professionals time.

2004

- BisBlock, a patented oxalate dentin desensitizer that helps prevent sensitivity is launched.
- The Aelite composite line is launched with Aesthetic Enamel and All-Purpose Body.
- BISCO's Lab division expands its product offering with the Tescera U-Beam and Rods, fiber reinforcement materials.

2011

- TheraCal LC revolutionizes the industry as the first resin-modified calcium silicate liner and pulp protectant.
- Reveal BFEP (Bonded Functional Esthetic Prototype) is launched, along with the Intraoral Repair Kit to help dentists with repairs.
- Select HV Etch is introduced with a new bulk syringe delivery.

2010

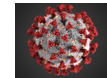
- ACE "One and Done" is BISCO's hand-held dispenser for ALL-BOND SE and ALL-BOND TE.
- Core-Flo DC stackable & dual-cured core build-up material is introduced.

2009

- BISCO introduces Z-PRIME Plus, a zirconia-metal-primer that is embraced by both dental and lab professionals.

**2020**

- BISCO survives the COVID-19 Pandemic.

**2015**

- Core-Flo DC Lite, self-leveling core build-up material, is launched.
- Universal Primer is introduced for bonding indirects without curing.
- All-Bond Universal is available in unit-dose & Uni-Etch and Etch-37 are available in bulk delivery.

**2014**

- eCEMENT is introduced as the one kit for cementing lithium disilicate restorations.

**2021**

- TheraBase and FluoroCal are launched!



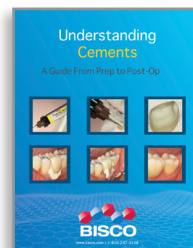
Restorative Solutions eBook

Meet the Award-Winning TheraFamily



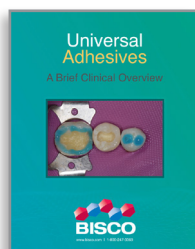
Understanding Cements eBook

A Guide From Prep to Post-Op



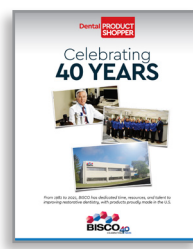
Universal Adhesives eBook

A Brief Clinical Overview



Celebrating 40 Years

From 1981 to 2021, BISCO has dedicated time, resources, and talent to improving restorative dentistry, with products proudly made in the U.S.



USE YOUR MOBILE DEVICE
TO SCAN THE QR CODES
AND LEARN MORE!

All-Bond Universal®

Light-Cured Dental Adhesive

All-Bond Universal is the culmination of over 30 years of adhesive research at BISCO. All-Bond Universal is compatible with all light-, self-, and dual-cured resin composite and cement materials for all direct and indirect procedures.



Versatile

Offers the flexibility for total-, self-, or selective-etch procedures



MDP

Contains MDP for enhanced durability



High Shear Bond Strengths

High shear bond strength to all substrates



Low Film Thickness

Less than 10 microns



Single Bottle System

Other adhesives may need more than one bottle for indirect restorations, but with All-Bond Universal, NO activator is required



Total Universality

Compatible with all light-, self- and dual-cured resin composite and cement materials for all direct and indirect procedures

Dentistry courtesy of Tyler Lasseigne, DDS, CDT



1. Apply Z-Prime Plus



2. Apply All-Bond Universal



3. Apply Duo-Link Universal

LEARN MORE ABOUT
ALL-BOND UNIVERSAL



Order Info: Bottle

All-Bond Universal Standard Kit
All-Bond Universal (6ml)

B-72020K
B-7202P

Unit-Dose Packages

All-Bond Universal Unit-Dose (50pk)
All-Bond Universal Unit-Dose (100pk)

B-73050K
B-73100K





Duo-Link Universal™ Resin Luting Cement

Duo-Link Universal is specially formulated for cementation of ALL* indirect restorations. The adhesive resin cement is intended for use with adhesives designed for compatibility with all dental materials, including all BISCO adhesives.



Easy Clean-Up

Specially formulated to allow for quick and easy clean-up



Easy to Use

Auto-mix, dual-syringe provides a consistent mix for immediate delivery



Radiopaque

Visible on radiograph to easily distinguish from caries



CAD/CAM Restorations

Ideal for all chairside and lab-fabricated restorations



High Degree of Conversion

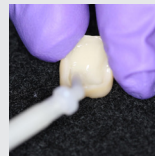
Ensures a higher physical strength



Universal For All Cementation Procedures*

Crowns, bridges (fixed prosthesis), inlays, onlays, and posts/dowels, fabricated from metal, composite, porcelain, ceramic, zirconia, alumina, CAD/CAM restorations, etc.

Dentistry courtesy of Darren D. Simpson, DDS



1. Duo-Link Universal dispensed in the crown



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



3. Restoration seated. Excess cement removed



4. Final restoration

LEARN MORE ABOUT
DUO-LINK UNIVERSAL



Order Info: System Kit with All-Bond Universal
System Kit with Universal Primer

B-19620K
B-19710K

Universal Dual-Syringe (8g)
Milky White Dual-Syringe (8g)

A-19030P
A-197MWP

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





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 pin-point placement to etch enamel when using an adhesive in selective-etch mode.

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.



Blue Color

Easy visualization and contrast



Contains BAC

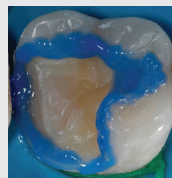
In-vitro research shows benzalkonium chloride is effective against *Streptococcus mutans*^{1,2}



Easy Clean-Up

Rinses away cleanly and quickly leaving no residue to interfere with bonding

Dentistry courtesy of Michael Morgan, DDS



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

LEARN MORE ABOUT
ETCHANTS



Order Info: Select HV Etch w/BAC (35%)

30ml Bulk Syringe Kit
Bulk Syringe Refill (30ml)
4 Syringe Package (5g ea.)

E-59200K
E-59160P
E-59110P

Etch-37 w/BAC (37%)

Bulk Bottle (30g)
Bulk Syringe Refill (30ml)
4 Syringe Package (5g ea.)

E-5638EB
E-56741P
E-5503EBM

Uni-Etch w/BAC (32%)

Bulk Bottle (30g)
Bulk Syringe Refill (30ml)
4 Syringe Package (5g ea.)

E-5637EB
E-56621P
E-5502EBM

1. M.Sc.Dt. Emre ÖZEL, Dr. Haktan YURDAGÜVEN, Yrd.Doç.Dr. Esra CAN SAY, Prof.Dr. Sesin KOCAGÖZ, Evaluation of the Antibacterial Activity of Disinfectant Solutions with Phosphoric Acids Against *Streptococcus Mutans*. Journal of Hacettepe Faculty of Dentistry, Volume: 29, Issue 4, Page: 8-14, 2005
2. M. TURKUN1, Z. ERGUCU, L.S. TURKUN, E.U. CELIK, and M. ATES, Is Phosphoric Acid Sufficiently Antibacterial? J Dent Res 85 (Spec Iss B):abstract number 1605, 2006 (www.dentalresearch.org).



TheraCal LC®

Resin-Modified Calcium Silicate Pulp Protectant/Liner

TheraCal LC is a light-cured resin modified calcium silicate ideal for direct and indirect pulp capping and as a protective liner.



Calcium Release*

Stimulates hydroxyapatite formation^{1,2} and secondary dentin bridge formation^{2,3}



Radiopaque

Visible on radiograph to easily distinguish from caries



Moisture Tolerant

Can be placed under restorative materials and cements



Alkaline pH

Alkaline pH promotes pulp vitality³



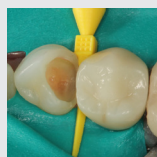
Insulates Pulp

Forms a protect barrier that insulates the pulp^{4,5}

Dentistry courtesy of Ross Nash, DDS



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



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



3. Placement of TheraCal LC on moist dentin



4. Place 1mm of TheraCal LC and light cure for 20 seconds

LEARN MORE ABOUT
THERACAL LC



OR VISIT
THERAFAMILY.COM

Order Info: TheraCal LC 4-Syringe Pack
TheraCal LC Syringe (1g)

H-33014P
H-3301P

* 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-terms
3. T. Okabe, M. Sakamoto, H. Takeuchi, K. Matsushima. Effects of pH on Mineralization Ability of Human Dental Pulp Cells. Journal of Endodontics. Volume 32, Number 3, March 2006.
4. 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
5. 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.





TheraCal PT®

Dual-Cured Resin-Modified Calcium Silicate Pulpotomy Treatment

TheraCal PT is a biocompatible, dual-cured, resin-modified calcium silicate designed for pulpotomy treatment. TheraCal PT maintains tooth vitality by performing as a barrier and protectant of the dental pulpal complex.



Calcium Release*

Unique hydrophilic matrix facilitates calcium release



Radiopaque*

Visible on radiograph to easily distinguish from caries



Easy Syringe Application

Manual mixing is not required, the dispensing tip creates a uniform mix allowing for direct placement



Alkaline pH*

Alkaline pH promotes pulp vitality¹



Dual-Cured

One-layer confidence



Moisture Tolerant*

Low water solubility

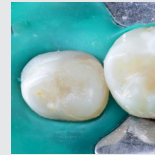
Dentistry courtesy of Juan Carlos Hernández Cabanillas, DDS



1. Perform pulpotomy treatment and achieve hemostasis



2. Place TheraCal PT directly in the pulp chamber, and ensure good adaptation to the cavity walls and margins



3. After light curing TheraCal PT for 10 seconds, place desired adhesive, base, and/or restoration following manufacturer's directions.

LEARN MORE ABOUT
THERACAL PT



OR VISIT
THERAFAMILY.COM

Order Info: TheraCal PT Dual-Syringe (4g) H-34110P

* Data on file. BISCO, Inc.

1. T. Okabe, M. Sakamoto, H. Takeuchi, K. Matsushima. Effects of pH on Mineralization Ability of Human Dental Pulp Cells. Journal of Endodontics. Volume 32, Number 3, March 2006.





TheraCem® Self-Adhesive Resin Cement

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



Calcium and Fluoride Release

TheraCem offers continuous calcium and fluoride release¹



Radiopaque

Visible on radiograph to easily distinguish from caries



Alkaline pH

TheraCem transitions from acidic to alkaline pH in minutes²



Easy Clean-Up

Specially formulated to allow for quick and easy clean-up



High Degree of Conversion

A high degree of conversion ensures a higher physical strength



MDP

TheraCem contains MDP offering a strong bond to zirconia, metal, and alumina substrates with no priming or etching required

Dentistry courtesy of Joseph Kim DDS, JD, FAGD, FICOI



1. Prepare Tooth



2. Seat restoration with TheraCem



3. Remove excess cement



4. Inspect margins

LEARN MORE ABOUT
THERACEM



OR VISIT
THERAFAMILY.COM

Order Info: Natural Dual-Syringe (8g) D-46311P

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. Data on file. BISCO, Inc.



NEW!

TheraBase™*Self-Adhesive Calcium Releasing Base/Liner*

TheraBase is a dual-cure, calcium and fluoride-releasing, self-adhesive base/liner. It is the ideal dual-cured material that will polymerize even in deep restorations where light cannot reach.

**Calcium and Fluoride Release**

TheraBase offers continuous calcium and fluoride release¹

**Radiopaque**

Visible on radiograph to easily distinguish from caries

**High Flexural Strength**

Stronger and more fracture resistant

**Alkaline pH**

Generates an alkaline pH (pH=11*) in minutes, which promotes pulp vitality²

**High Compressive Strength**

Absorbs shock and stress from occlusal forces without fracturing

**High Degree of Conversion**

Ensures enhanced physical properties



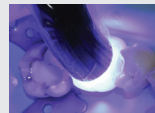
Dentistry courtesy of Dr. Rual Euan, DDS



1. After cavity preparation, all water was removed using a stream of air, leaving the surface visibly moist. TheraCal LC was applied on the small pulp exposure and light-cured for 20 seconds.



2. TheraBase was applied to the dentin surface of the prepared cavity directly from the dispensing syringe.



3. TheraBase was light cured for 20 seconds. If desired, TheraBase can be allowed to self-cure for 4 minutes.



4. A selective-etch bonding technique was used to condition the surface of the preparation. Any bonding technique can be applied.



5. All-Bond Universal was applied following manufacturer's instructions.



6. Restorations were filled with a light-cure composite material following manufacturer's instructions.

LEARN MORE ABOUT
THERABASE



OR VISIT
THERAFAMILY.COM

Order Info: TheraBase Single Syringe Pack H-35001P

* Data on file. BISCO, Inc.

1. Gleave CM, Chen L, Suh BI. Calcium & fluoride recharge of resin cements. Dent Mater. 2016 (32S):e26.

2. T. Okabe, M. Sakamoto, H. Takeuchi, K. Matsushima. Effects of pH on Mineralization Ability of Human Dental Pulp Cells. Journal of Endodontics. Volume 32, Number 3, March 2006.



Z-Prime™ Plus

Zirconia - Alumina - Metal Primer

Z-Prime Plus is a one-bottle primer used to enhance adhesion between indirect restorative materials and composite resin cements.



High Bond Strength

To zirconia, alumina, and metal restorations



Versatile

Can be used with a variety of different substrates



Compatibility

Compatible with light-cured and dual-cured resin luting cements



Enhances Bond Strength

Significantly enhances bond strengths of other resin cements*



Single Bottle

Convenient single bottle delivery offers ease of dispensing



MDP

Specially formulated with MDP to bond to zirconia, alumina, and metal

Order Info: 1 Bottle Z-Prime Plus (2ml)
1 Bottle Z-Prime Plus (4ml)

B-6002P
B-6001P

* Data on file. BISCO, Inc.

LEARN MORE ABOUT
Z-PRIME PLUS





ZirClean® Restoration Cleaner

ZirClean is a cleaning agent designed for the non-abrasive cleaning of the bonding surfaces of zirconia, ceramic and metal restorations, after intraoral try-in.



Easy to Use

Delivery system offers improved ease-of-use and easy placement



Easy Clean-up

Specially formulated to allow for quick and easy clean-up



Contaminant Remover

Contaminants such as saliva can be removed to help achieve better bond strengths after try-in*



Reliable Results

Helps achieve reliable adhesive cementation results*

Order Info: 1 Syringe ZirClean (5g)

B-7351P

* As compared to untreated samples.

LEARN MORE ABOUT
ZIRCLEAN



Core Flo™ DC & Core Flo™ DC Lite

Dual-Cured Core Build-Up Materials

Core-Flo DC and Core Flo DC Lite are dual-cured, core products that are ideal for core build-ups, post cementation and as a dentin replacement material.



High Compressive Strength

Absorbs shock and stress from occlusal forces without fracturing



High Flexural Strength

Stronger and more fracture resistant



Radiopaque

Visible on radiograph to easily distinguish from caries



Cuts Like Dentin

Allows for easy preparation



Stackable (Core-Flo DC)

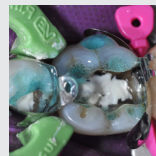
Optimal handling when building up core



Self-Leveling (Core-Flo DC Lite)

Allows for excellent adaption resulting in gap-free margins

Dentistry courtesy of Ross Nash, DDS, FAACD



1. Enamel etched with Select HV Etch



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



3. Core-Flo DC placed

LEARN MORE ABOUT
CORE-FLO DC +
CORE-FLO DC LITE



Order Info: Core-Flo DC Lite

System Kit with Universal Primer
Natural/A1 Dual-Syringe (8g)
Opaque White Dual-Syringe (8g)

AB-17410K
A-17801P
A-17803P

Core-Flo DC

Natural/A1 Dual-Syringe (8g)
Opaque White Dual-Syringe (8g)

A-23011P
A-23012P

Accessories

Dispenser
Mixing and Root Canal Tips
Intraoral Mixing Tips

L-22020P
X-81267P
X-81257P



NEW!**FluoroCal™****5% Sodium Fluoride Varnish with Tri-Calcium Phosphate**

FluoroCal is a calcium and fluoride releasing, 5% sodium fluoride varnish that contains TriCalcium Phosphate. FluoroCal provides immediate sensitivity relief to hypersensitive teeth by penetrating and sealing exposed dentin tubules. It is available in a refreshing spearmint flavor that is sweetened with xylitol.

**Calcium and Fluoride Release***

Delivers sustained and targeted release of fluoride and calcium over 24 hours¹

**Sweetened with Xylitol**

Xylitol acts as a sweetener to help patient compliance

**Immediate Relief**

Penetrates and seals dentin tubules, providing immediate sensitivity relief

**Fluoride Uptake**

When tested, FluoroCal demonstrated significantly higher enamel fluoride uptake than other leading fluoride varnishes²

**Contains TriCalcium Phosphate (TCP)**

Studies have shown that when combined, fluoride and TCP provide greater protection and acid-resistance³

LEARN MORE ABOUT
FLUOROCAL

**Order Info:** FluoroCal 50ct. Unit Dose

B-30501K

1. As tested in deionized water.

2. BISCO has, on file, the fluoride uptake data for FluoroCal.

3. Li X. The remineralisation of enamel: a review of the literature. J Dent. 2014;42:S12-S20. doi: 10.1016/S0300-5712(14)50003-6.



TECHNIQUES

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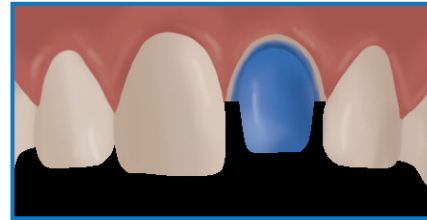


Self-Etch Technique



No phosphoric acid applied to the tooth structure.

Total-Etch Technique



Phosphoric acid (such as Uni-Etch w/ BAC) applied to both enamel and dentin surface.

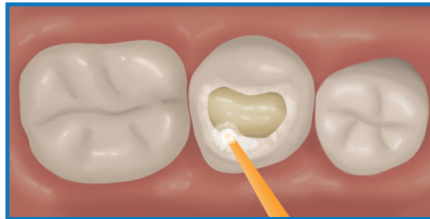
Selective-Etch Technique



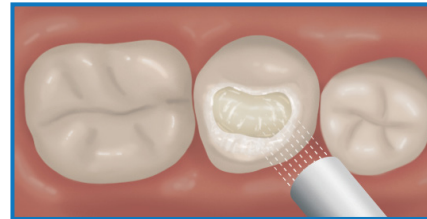
Phosphoric acid (such as Select HV w/ BAC) applied to the enamel surface only.

Bonding Technique*

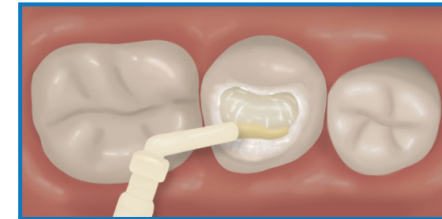
using All-Bond Universal



1. Apply two separate coats of **All-Bond Universal**, scrubbing the preparation with a microbrush for 10-15 seconds per coat. Do not light cure between coats.



2. Evaporate solvent by thoroughly air-drying with an air syringe for at least 10 seconds; there should be no visible movement of the material. The surface should have a uniform glossy appearance; otherwise, repeat Step 1-2. Light cure for 10 seconds.



3. Continue with placement of the restorative material according to the manufacturer's instructions.

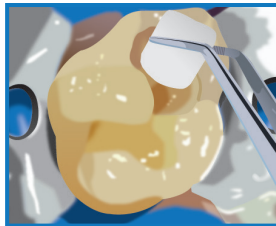
* Refer to instructions for complete details.

Pulp Exposures (Direct Pulp Capping)*

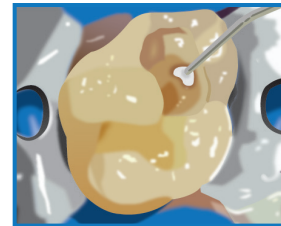
with TheraCal LC



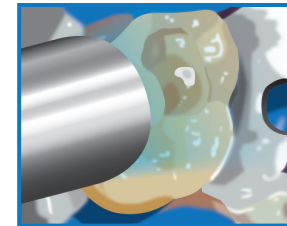
1. Under rubber dam isolation, complete cavity preparation.



2. Achieve hemostasis. Leave dentin visibly moist.



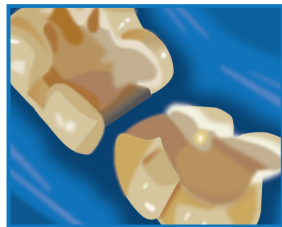
3. Apply TheraCal LC directly to the exposed pulp. Layer is not to exceed 1 mm in depth. Cover all the exposed areas and extend TheraCal LC at least 1mm onto sound dentin surrounding the exposure.



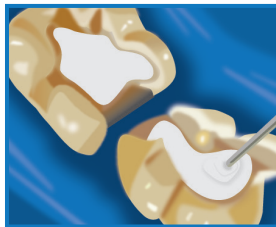
4. Light cure for 20 seconds. Place desired adhesive, base, and/or restoration following manufacturer's directions. Continue restoring tooth.

Deep Preparations (Indirect Pulp Capping)*

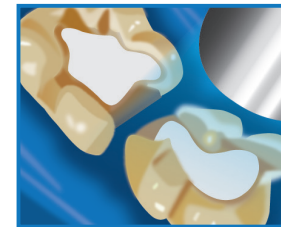
with TheraCal LC



1. Isolate the tooth and perform conventional cavity preparation. Remove all infected carious tooth structure. Leave dentin visibly moist.



2. Apply TheraCal LC directly to the cavity floor of the preparation. Layer is not to exceed 1 mm in depth. Manipulate into a smooth surface covering all deep dentin areas.



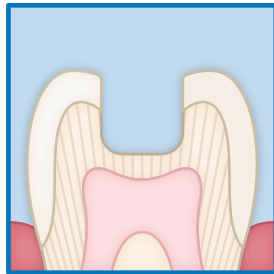
3. Light cure for 20 seconds. Place desired adhesive, base, and/or restoration following manufacturer's directions. Continue restoring tooth.

* Refer to instructions for complete details.

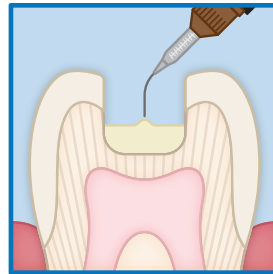


Sandwich Technique*

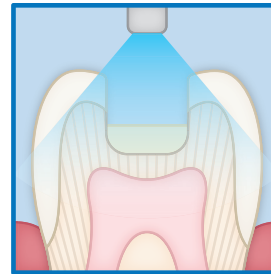
using TheraBase



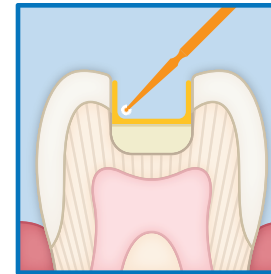
1. Prepare cavity. Remove all surface water using a strong stream of air on the preparation for 3 to 5 seconds. Do not desiccate.



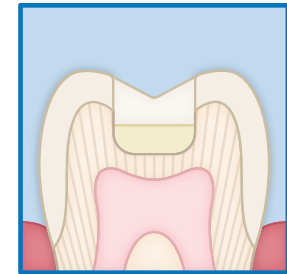
2. Apply TheraBase to the dentin surfaces of the prepared cavity directly from the syringe.



3. Light cure for 20 seconds or allow to self-cure.



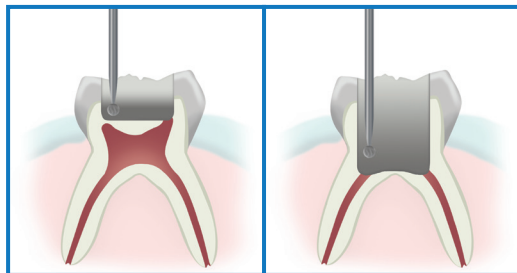
4. Proceed with bonding procedure, such as All-Bond Universal following manufacturer's instructions.



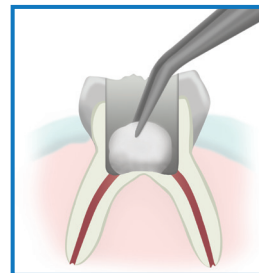
5. Restore with composite following manufacturer's instructions.

Pulpotomy Treatment*

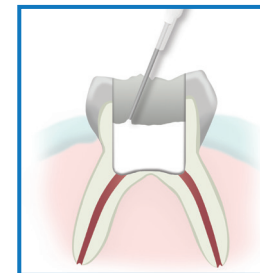
using TheraCal PT



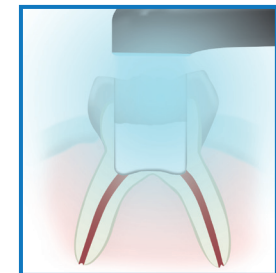
1. Perform pulpotomy treatment.



2. Achieve hemostasis.



3. Place TheraCal PT directly in the pulp chamber, and ensure good adaptation to the cavity walls and margins.

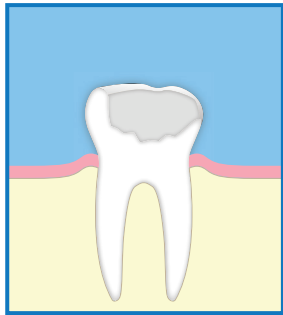


4. Light cure TheraCal PT for 10 seconds. Place desired adhesive, base, and/or restoration following manufacturer's directions for restoring tooth.

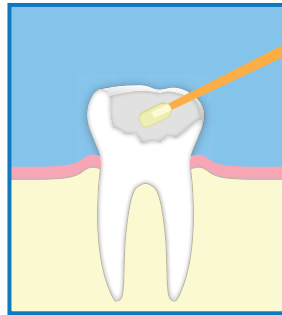
* Refer to instructions for complete details.

Core Build-Ups*

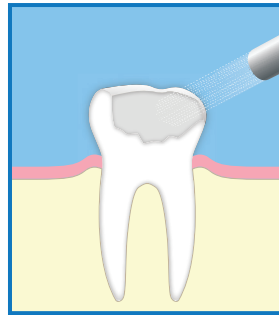
with Core-Flo DC



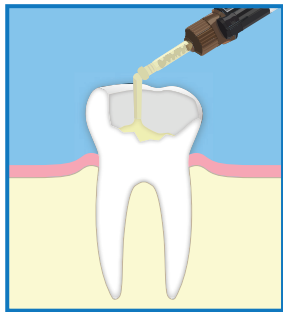
1. Isolate tooth and prepare accordingly. Rinse and dry.



2. Dispense 1-2 drops of **Universal Primer A & B** into a clean well. Apply two separate coats of **Universal Primer**, scrubbing the preparation with a microbrush for 10-15 seconds per coat.



3. Evaporate excess solvent by thoroughly 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 A & B** and air dry.



4. Place the end of the intra-oral tip directly onto the preparation, and express **Core-Flo DC** or **Core-Flo DC Lite**.



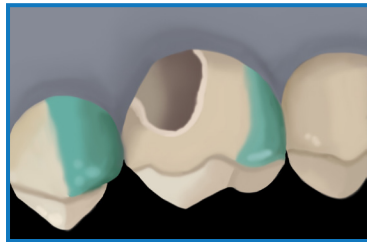
5. Light cure the **Core-Flo DC** or **Core-Flo DC Lite** for 40 seconds and continue with final preparation.



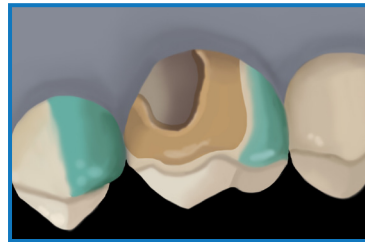
* Refer to instructions for complete details.

Intraoral Repairs of Porcelain (PFM, or PFZr)*

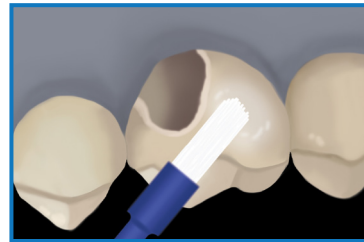
1. Isolate the area to be repaired. Remove the glaze and bevel (45 degrees) the porcelain around the area to be repaired. Sandblast or abrade with a coarse diamond bur. Rinse with water and air dry.



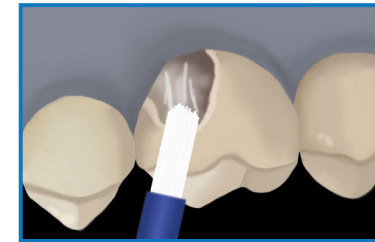
2. Place **Barrier Gel** on the gingival tissue and porcelain to protect areas where etching is not desired.



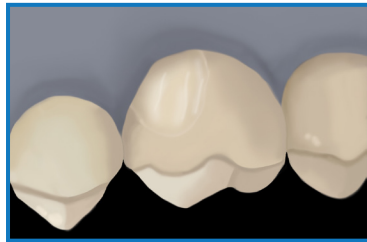
3. Apply 9.5% **Porcelain Etchant** to the dry porcelain surface for 90 seconds. Suction the etchant with high volume evacuation, then rinse with water and air dry. The etched porcelain should appear dull and frosty.



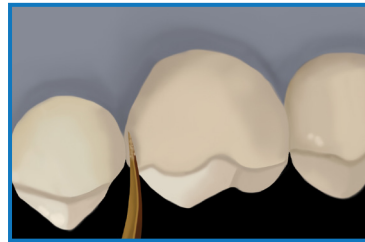
4. Apply 1 coat of silane (**Porcelain Primer**) to the etched porcelain and allow to dwell for 30 seconds. Dry with (warm) air syringe.



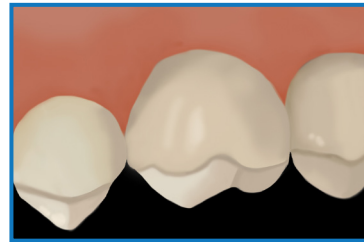
5. Apply 1 coat of **Z-Prime Plus** to the exposed metal/zirconia/alumina and dry with an air syringe for 3-5 seconds.



6. If metal masking is required, use **Dual-Cured Opaquer Base** and **Catalyst**, one drop of each, onto a mixing pad and mix with a brush tip. Apply a thin coat of the mixture only to the metal surface. Allow to self cure, or light cure for 5 seconds.



7. Apply a thin layer of **Porcelain Bonding Resin** to the repair site. Apply a hybrid composite (**Aelite™ All-Purpose Body**) to replace fractured porcelain and light cure, finish/polish.



8. (Optional): Place **Bis-Cover™ LV** to seal and glaze the composite.

LEARN MORE ABOUT
THE INTRAORAL
REPAIR KIT



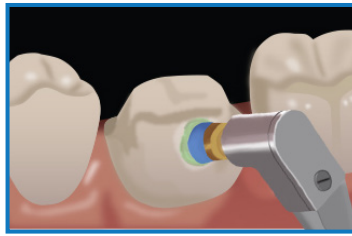
* Refer to instructions for complete details.

Conventional Cementation of Crowns (Retentive Preps)*

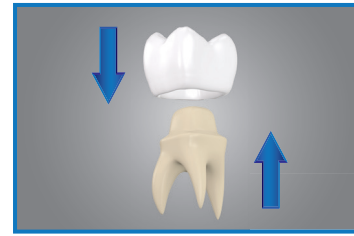
using TheraCem



1. Sandblast internal surface of restoration (unless restoration has previously been sandblasted).



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



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



4. 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.



5. Dispense TheraCem into the restoration. Seat the restoration with gentle passive pressure and remove any excess cement.

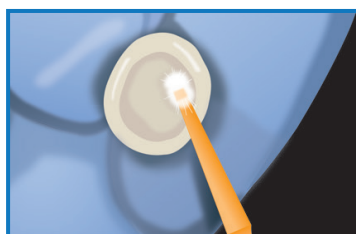
PRO TIP: To aid in the removal of excess cement, initially light-cure the margins for 2-3 seconds.



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

* Refer to instructions for complete details.

Bonded Cementation of Inlay/Onlays, Bridges, Crowns (Short/Tapered Preps)* using Duo-Link Universal

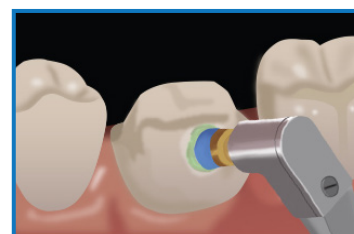


1a. Porcelain/Lithium Disilicate: Apply a thin coat of silane (**Porcelain Primer**) to the internal surface. Wait for 30 seconds, or dry with (warm) air.

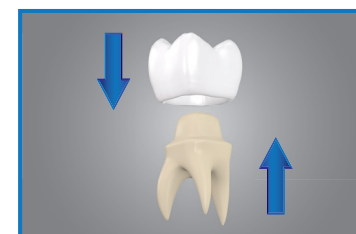
OR



1b. If restoration is metal/zirconia/indirect composite sandblast internal surface of restoration, unless restoration has previously been sandblasted.



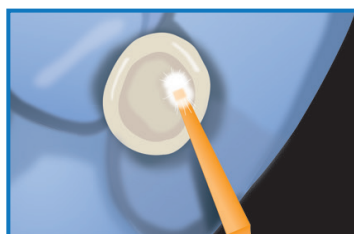
2. Remove temporary restoration and clean prep with pumice and water slurry. Rinse thoroughly and dry.



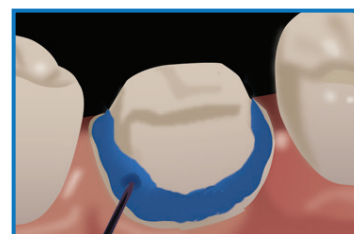
3. Try-in (to check occlusion and fit). After try-in, thoroughly rinse the restoration with water spray and dry.



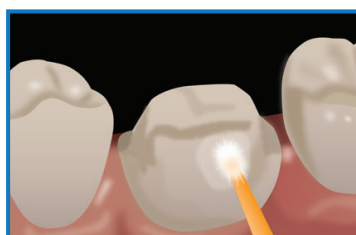
4. Cover all bonded surfaces of the restoration with a layer of **Zirclean**. Allow 20 seconds for the cleaning action of **Zirclean** to take affect, then thoroughly rinse with water spray and dry.



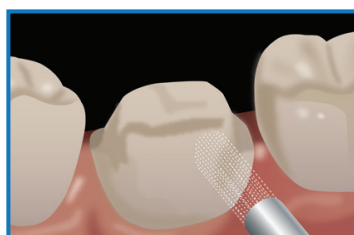
5. If restoration is metal/zirconia/indirect composite, apply one coat of **Z-Prime Plus** to the internal surface of the restoration and air dry for 3-5 seconds.



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



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



8. 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 7. Light cure for 10 seconds.**



9. Using a dual-cured resin cement (**Duo-Link Universal**), 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.

* Refer to instructions for complete details.

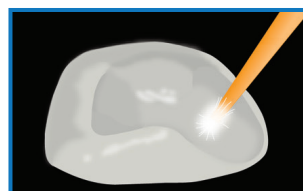
** Universal Primer does not require light cure.

Veneer Cementation*

using Choice™ 2



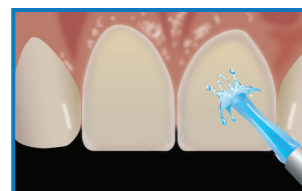
OR



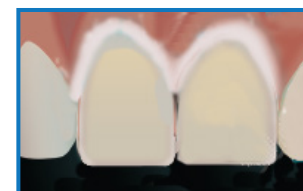
1. Prepare the internal surface of the restoration as instructed by the laboratory:

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.

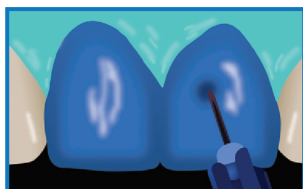
b. Apply a thin coat of silane (Porcelain Primer) to the internal surface. Wait for 30 seconds, or dry with (warm) air.



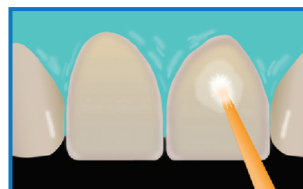
2. Remove the temporary restorations and clean the preparations (Cavity Cleanser™ and pumice slurry). Rinse thoroughly.



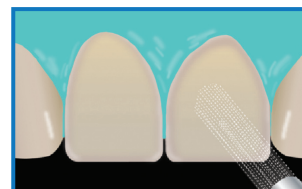
3. Try in the restorations using the corresponding shade of water-soluble try-in paste (Choice 2 Try-In Paste). Remove the veneers and either clean with etchant (Uni-Etch w/BAC or Select HV Etch w/BAC) and rinse thoroughly, or ultrasonicate in water or alcohol for 2-3 minutes. Dry the restorations.



4. Isolate. Etch preparations (Uni-Etch w/BAC or Select HV Etch w/BAC) for 15 seconds, rinse thoroughly.



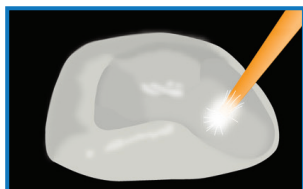
5. Dispense adhesive (All-Bond Universal) in a mixing well. Apply 2 separate coats, agitating each coat for 10-15 seconds.



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.



9. Using a light-cured resin cement (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.

* Refer to instructions for complete details.

Recommended Clinical Procedure for Zirconia Bonding





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