

# PULPDENT<sup>®</sup>

helping people live in comfort, smile with confidence,  
and enjoy healthier and more productive lives

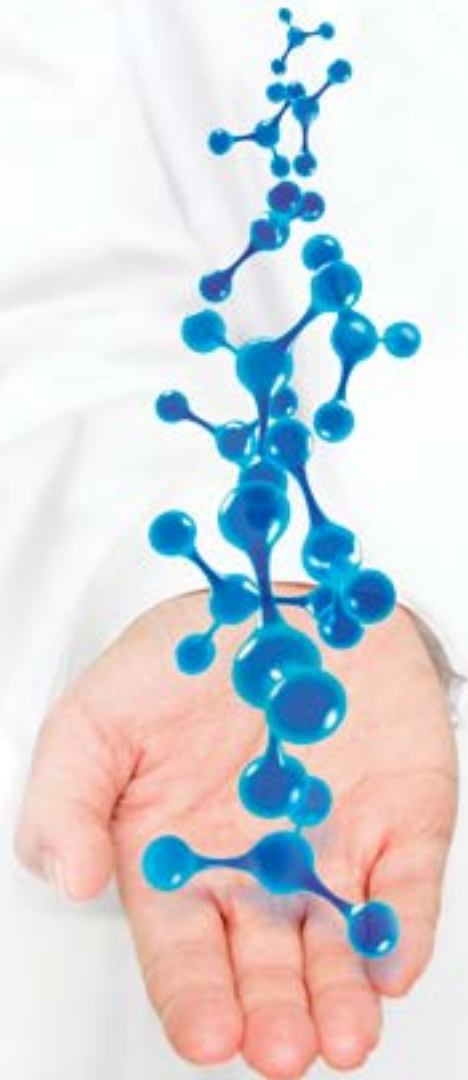


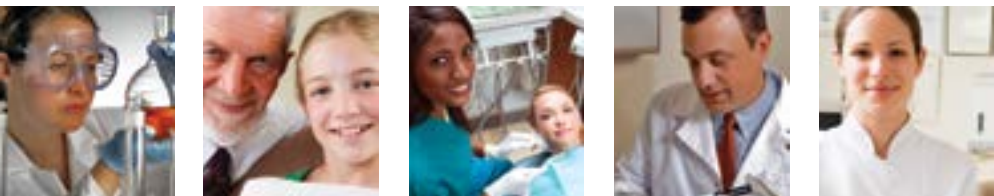
proven products for dental professionals and the patients they care for

The Future  
of Dentistry  
Now in  
Your Hands

**ACTIVA<sup>™</sup>**  
**BioACTIVE**

See pages 4-11, 27, 62





# PULPDENT® Corporation Our Founding Principles



“It has always been my mission to save teeth and help my patients live in comfort and smile with confidence.”

“I start with the least invasive treatment plan, and if it should fail, there is always the option to take the next step.”

“I have learned that nature has tremendous healing powers, and one of my responsibilities is to create an environment that is favorable for the natural healing process.”

Harold Berk, DDS, DSc, FACD, FICD, FAAPD  
 Founder, Pulpdent Corporation

Pulpdent is a family owned dental research and manufacturing company established in 1947 and committed to its founding principles of education, prevention, and proactive dental care so that people can live healthier and more productive lives.

Pulpdent’s research and product development is directed toward unlocking nature’s healing powers with bioactive materials that mimic the physical properties of tooth structure, behave favorably in the moist oral environment, and maximize the potential for remineralization.

Pulpdent products are manufactured in Watertown, Massachusetts USA in compliance with the company’s Quality System and all regulatory requirements. Each year we renew our commitment to investing in research and new technologies, earning the trust of the profession, inspiring clinicians with new ideas and materials, and providing the leadership to accomplish these objectives.



▶ Visit our websites at [www.pulpdent.com](http://www.pulpdent.com) and [www.activabioactive.com](http://www.activabioactive.com) for instructions for use, MSDS, and additional information and educational materials on Pulpdent products.

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 Customer Service Hours  
 Monday - Thursday: 8 a.m. - 5 p.m.  
 Friday: 8 a.m. - 4 p.m. Eastern Time



ISO 9001: 2008  
 ISO 13485: 2003  
 Medical Device Directive 93/42/EEC

## Embrace Bioactive Prevention ... Giving the tooth what it needs



## Embrace Varnish™ 5% Sodium Fluoride with CXP™

**CXP™ = Xylitol-coated Calcium and Phosphate for unsurpassed fluoride release**

**Fills superficial, non-carious enamel lesions (white spots)**

By incorporating xylitol-coated calcium and phosphate in a permeable resin matrix that does not separate, Pulpdent has developed a sustained time-release varnish with uniform dosage that delivers **10 times more fluoride than the leading varnish brand**. The pleasing taste ensures patient compliance.

**There’s more to Embrace than fluoride release**

- Pleasing taste ensures patient compliance
- Contains bioavailable calcium, phosphate and fluoride
- Does not separate - no mixing required
- Ensures predictable, uniform dose

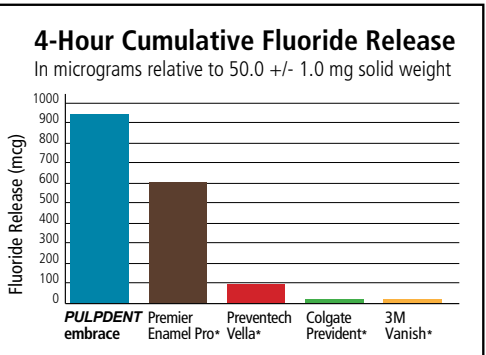
FV50	Box of 50 x 0.4mL packets	73.75
FV200	Box of 200 x 0.4mL packets	263.00
FVT	Tube, 12mL	29.95
FVX100	100 x 0.4mL (no brush)	81.50



## embrace™ varnish 5% Sodium Fluoride with CXP™

### Bioavailable Fluoride, Calcium and Phosphate with Xylitol

Not only does Embrace Varnish release more fluoride in 4 hours, it also releases bioavailable calcium and phosphate ions, the essential building blocks of teeth. The xylitol coating prevents the calcium and phosphate salts from reacting until they come in contact with saliva. Saliva dissolves the xylitol and releases the calcium and phosphate ions, which react continuously in saliva with the fluoride ions to form protective fluorapatite on the teeth.



\*Not a trademark of Pulpdent Corporation  
 Yapp R, Powers JM. Fluoride Ion Release from Several Fluoride Varnishes. Dent Advis Res Rpt 45:1, March 2012.

### Thin-to-Win Application of Embrace Varnish



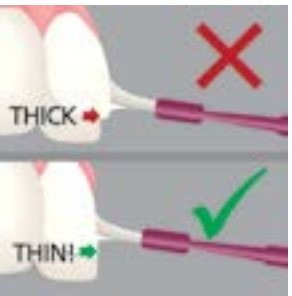
Dry the teeth with a gauze pad. It is best if the teeth are minimally clean, but prophylaxis is not necessary.



Pinch varnish foil pack to push contents back from tear line, and tear at slit to open varnish pack.



Dispense varnish on glove or a pad. Pick up varnish with brush. (Embrace does not separate and requires no mixing.)



Apply a THIN coat of Embrace Varnish with one horizontal swipe of the brush. Apply Embrace Varnish *Thin-to-Win*.



ACTIVA™ BioACTIVE-BASE/LINER

	ACTIVA-SPENSER™ is optional	
VB1	Single Pack: 5mL/7gm syringe + 20 automix tips with bendable, 20-gauge metal cannula	134.99
VB2	Value Pack: 2 x 5mL/7gm syringes + 40 automix tips with bendable, 20-gauge metal cannula	239.99
A20N1	Automix Tips, clear, with bendable 20-gauge metal cannula – pkg of 20	27.35
A50N1	Automix Tips, clear, with bendable 20-gauge metal cannula – pkg of 50 (for a complete list of automix tips see page 55)	62.35

Changes everything you know about traditional base/liners

The first bioactive Base/Liner with ease of use, patented shock-absorbing properties, strength, durability, chemical bonds and tooth integration that seals against bacterial microleakage and eliminates sensitivity. Ideal for all base/liner indications.

- Tougher than flowable composite base/liners
- More fluoride release than glass ionomers
- Releases/recharges calcium, phosphate and fluoride
- Fortifies teeth – provides long-term prevention benefits
- Superb handling and ease of placement – adheres to dentin
- Chemically bonds – No sensitivity - No Bonding Agents
- Radiopaque

Be ProACTIVE – Ask for ACTIVA BioACTIVE today.  
[www.activabioactive.com](http://www.activabioactive.com)



Contains no Bisphenol A, no Bis-GMA and no BPA derivatives

Key Features of ACTIVA BioACTIVE Products

- Tough, resilient, fracture and wear resistant, absorbs shock
- Releases, recharges calcium, phosphate and fluoride
- Natural esthetics
- No sensitivity
- Ionic bonds form exceptional marginal seal
- Resists chipping and crumbling
- Dimensionally stable
- Moisture friendly
- Low water sorption - Low solubility
- Light cure, self-cure, no depth of cure concerns
- Radiopaque

Available in easy to use automix syringes – no mixing, no capsules, no porosity, no waste!

The alternative to traditional RMGIs, GlIs and composites

3 Key Components of ACTIVA BioACTIVE Products

An unparalleled combination of chemical and physical properties deliver esthetics, bioactivity, toughness, resilience and marginal integrity:

1. Patented bioactive ionic resin
2. Patented rubberized resin
3. Bioactive glass ionomer



ACTIVA™ BioACTIVE-RESTORATIVE

Changes everything you know about current restorative materials

The first bioactive Restorative that combines the attributes of composites, RMGIs and GlIs without their disadvantages. An unparalleled combination of physical and chemical properties delivers bioactivity, esthetics, toughness, resilience, durability and marginal integrity. Ideal for Class I, II, III, V.

- Highly esthetic, bioactive composite
- Resists wear and fracture
- Chemically bonds to tooth – no sensitivity
- More fluoride release than glass ionomers
- Releases/recharges calcium, phosphate and fluoride
- “Smart” material delivers long-term benefits
- Easy placement – simplified technique
- Radiopaque

Be ProACTIVE – Ask for ACTIVA BioACTIVE today.  
[www.activabioactive.com](http://www.activabioactive.com)



Introducing ACTIVA™ KIDS- see page 27

	Requires ACTIVA-SPENSER™	
VR*	Starter Kit: 5mL/8gm syringe, ACTIVA-SPENSER™ + 20 assorted automix tips (available in A1, A2 and A3 shade only)	185.99
VR1*	Single Refill: 5mL/8gm syringe + 20 assorted automix tips	114.99
VR2*	Value Refill: 2 x 5mL/8gm syringe + 40 assorted automix tips *Specify Shade: A1, A2, A3, A35 (for A3.5)	206.99
A20N1	Automix Tips, clear, see page 4	27.35
A50N1	Automix Tips, clear, see page 4	62.35
AD20T	Automix Tips, clear + short intraoral tips (IOT) - pkg of 20	27.35
AD50T	Automix Tips, clear + short intraoral tips (IOT) - pkg of 50 (for a complete listing of automix tips see page 55)	62.35

ACTIVA SPENSER™

DS05	Dispenser for 5mL, 1:1 automix syringe	92.50
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Shows large Class II restored with ACTIVA™ BioACTIVE-BASE/LINER™ and ACTIVA™ BioACTIVE-RESTORATIVE™



1 Shows prepared tooth

Photos courtesy of Dr. Robert Lowe



2 Shows ACTIVA™ BioACTIVE-BASE/LINER™ after light curing



3 Tooth is etched for 5 seconds with Etch-Rite phosphoric acid gel



4 Finish restoration with ACTIVA BioACTIVE-RESTORATIVE (shown) or composite

Shows cases restored with ACTIVA BioACTIVE-RESTORATIVE. ACTIVA is esthetic and durable and delivers continuous, long-lasting bioactivity and patient benefits.



A1 Shows conservative cavity prep on first molar

Photos courtesy of Dr. Leon Katz



A2 Shows molar restored with ACTIVA™ BioACTIVE-RESTORATIVE™



B1 Shows Class II cavity prep

Photos courtesy of John Comisi, DDS



B2 Shows tooth restored with ACTIVA™ BioACTIVE-RESTORATIVE™

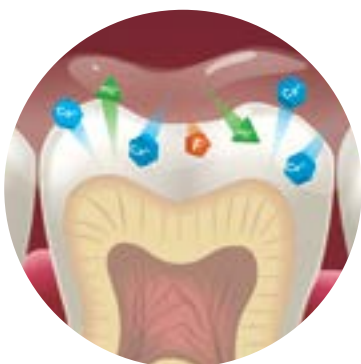
## BioACTIVE Products for ProACTIVE Dentistry

Advances in dental materials make possible a proactive approach to patient treatment and oral health care. Bioactive materials that behave favorably in the moist oral environment, neutralize conditions that cause dental caries, provide prevention benefits, and maximize the potential for remineralization will become the accepted standard of care.

### Mimics Nature

ACTIVA BioACTIVE products are the first dental resins that mimic the physical and chemical properties of teeth. They contain three key components:

- Bioactive ionic resin matrix
- Shock-absorbing rubberized resin component
- Reactive ionomer glass fillers.



These bioactive products actively participate in the cycles of ionic exchange that regulate the natural chemistry of our teeth and saliva and contribute to the maintenance of tooth structure and oral health.

### Strong, Esthetic, BioActive

ACTIVA has the strength, esthetics and physical properties of composites and delivers more fluoride release than glass ionomers,<sup>1</sup> combining the best attributes of both materials without compromising either one.

- Esthetic
- Chemically bonds
- Seals teeth against bacterial leakage<sup>2,3</sup>
- Releases/recharges calcium, phosphate and fluoride
- Provides long-term patient benefits

### Stimulates Apatite Formation

ACTIVA elicits a natural response that heals from within – nature's way – with apatite formation that fills gaps, seals margins against microleakage, and helps rebuild teeth.

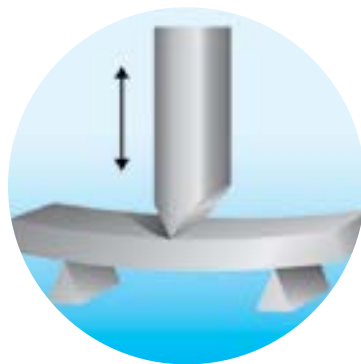
### Durable

ACTIVA contains water, yet the material has extremely low solubility.<sup>8,20</sup> The ionic resin matrix facilitates the diffusion of calcium, phosphate and fluoride ions while still maintaining the excellent physical properties associated with resins and composites.

### Tough, Fracture Resistant

ACTIVA BioACTIVE products are tougher and more fracture resistant than composites. Toughness, measured by deflection at break, is the ability of a strong, hard material to absorb stress without fracturing.

Deflection at break of ACTIVA is 2-3 times greater than composites and 5-10 times greater than GIs and RMGIs.<sup>4,5,17</sup>



### Dynamic "Smart" Material

Unlike traditional materials that are hydrophobic, repel water, and are designed to be passive, ACTIVA is moisture friendly and plays a dynamic role in the mouth.

Only moisture friendly materials that are partly water-based or have phases or zones with significant water content can react to changes in the ambient conditions and are capable of this dynamic behavior.<sup>6</sup>



ACTIVA reacts to the continuous pH changes in the oral environment to help fortify and recharge the ionic properties of saliva, teeth and the material itself.<sup>1,7,9</sup> For this reason, ACTIVA is considered a "smart" material.

### No Bisphenol A

- ACTIVA BioACTIVE products contain no Bisphenol A, no Bis-GMA, no BPA derivatives
- Two-paste, automix systems
- Three setting mechanisms: light cure, self-cure resin chemistry, and self-cure glass ionomer reaction

## Bioactive Materials

Bioactive dental materials stimulate apatite formation that fills gaps, seals margins against microleakage, and helps rebuild teeth. Bioactive materials that are strong, esthetic, and long-lasting offer an alternative to traditional composites, which are strong and esthetic but are passive and without bioactive potential, and to glass ionomers, that release a significant amount of fluoride but have poor esthetics and undesirable physical properties.

The development of bioactive materials is inspired by nature, where water is the source of life. In the oral cavity, saliva is the life source and is rich with water, proteins and ionic components.

The oral environment is exposed to continuous pH cycles, and saliva and



tooth structure participate in an endless cycle of mineral exchange.

When the pH is low, the demineralization process releases calcium and phosphate ions from the tooth surface. As the pH rises, these ions are available to interact with fluoride ions in our saliva.

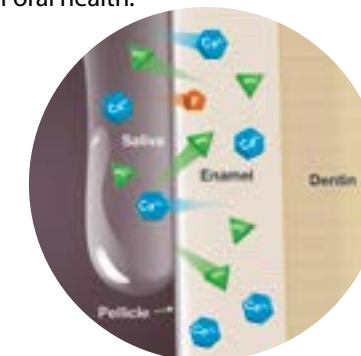
Bioactive materials imitate nature and participate in this dynamic ionic exchange. They are water-based or contain zones or phases of water and continuously release and recharge their ionic components.<sup>6</sup>

They react to the changes in the oral environment to bring about advantageous changes in the properties of saliva, teeth and the materials themselves. This is often referred to as "smart" behavior.<sup>6</sup>

Saliva is a natural caries protection agent and contains the minerals that maintain the integrity of the enamel surface.

It helps maintain the health of the hard and soft tissues, removes waste, and is the first line of defense against microbial invasion.

Bioactive dental materials help regulate the chemistry of teeth and saliva, stimulate the formation of protective mineral apatite, and contribute to the maintenance of oral health.



## Ionic Resins

ACTIVA BioACTIVE products are formulated with a patented, ionic-resin (Embrace resin) that contains a small amount of water. It is bioactive, mimics nature and responds to changes in the oral environment.<sup>9</sup>



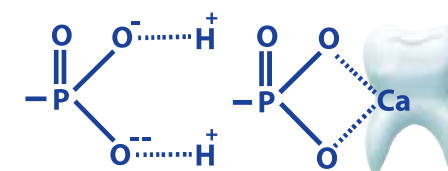
The ionic resin is moisture friendly, which is a requirement of bioactive materials. Water placed next to the ionic resin mixes with the resin.

ACTIVA's ionic resin contains phosphate acid groups with antimicrobial properties<sup>12,13</sup> that improve the

interaction between the resin and the reactive glass fillers and enhance the interaction with tooth structure.

Through an ionization process that is dependent upon water, hydrogen ions break off from the phosphate groups and are replaced by calcium in tooth structure.

This ionic interaction binds the resin to the minerals in the tooth, forming a strong resin-hydroxyapatite complex and a positive seal against microleakage.<sup>2,3,14,15,16,19</sup>



ACTIVA participates in a dynamic system of ionic exchange with saliva and tooth structure, continuously releasing and recharging calcium, phosphate and fluoride ions and reacting to pH changes in the mouth.<sup>1,7,9,11</sup>

Unique properties of the ionic resin:

- Significantly releases and recharges with fluoride<sup>1,7,11</sup>
- Releases a great amount of phosphate<sup>11</sup>
- Intimate adaptation to tooth structure.<sup>2,3,10</sup>
- Exceptional marginal integrity<sup>10,15,16</sup>
- Seals against bacterial leakage<sup>2,3</sup>
- Antimicrobial properties<sup>12,13</sup>

References for page 6-10 can be found at [www.activabioactive.com/references/](http://www.activabioactive.com/references/)

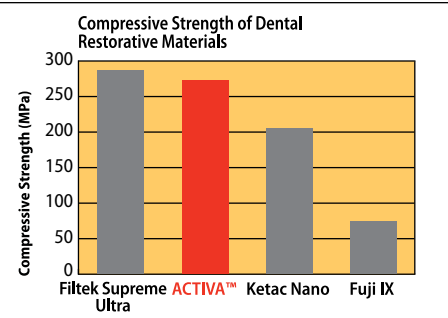
Trademark information for pages 6-10: Filtek, Ketac and Vitrebond are trademarks of 3M ESPE; Fuji IX, Fuji II LC, Fuji Lining, FujiCEM and Triage are trademarks of GC; Tetric EvoCeram, SonicFill and TheraCal are trademarks of Ivoclar Vivadent, Kerr and Bisco respectively.



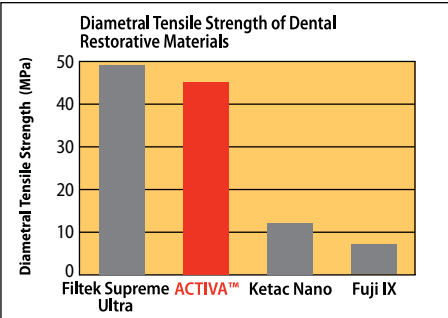
Physical Properties

Strength

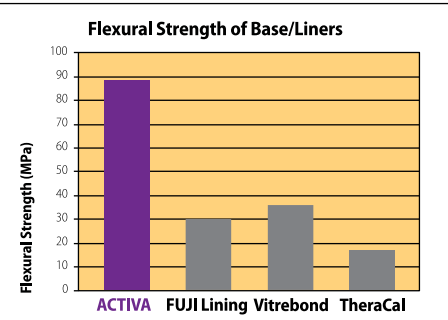
Compressive and Diametral Tensile Strength of ACTIVA BioACTIVE-RESTORATIVE is comparable to composites and far superior to glass ionomers and RMGIs.



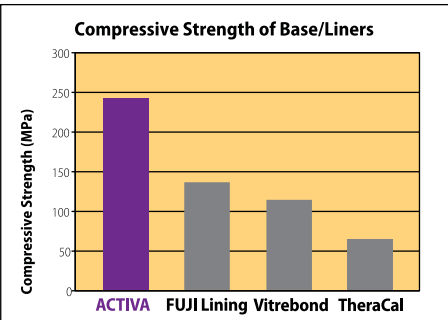
Filtek = Composite; ACTIVA = Bioactive Composite; Ketac Nano = RMGI; Fuji IX = Glass Ionomer  
Source: University testing<sup>17</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/)) (For trademark information see page 6)



Compressive and Flexural Strength of ACTIVA BioACTIVE-BASE/LINER is much greater than resin-modified base/liners and RMGIs.



ACTIVA = Bioactive Base/Liner; FUJI Lining = RMGI; Vitrebond = RMGI; TheraCal = Resin-Modified Calcium Silicate  
Source: Pulpdent testing<sup>18</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/)) (For trademark information see page 6)



Toughness, Fatigue Limit, Deflection at Break

ACTIVA's rubberized resin component provides unparalleled toughness and resilience. Toughness, measured by deflection at break using a 3-point bend test, is the ability of a strong, hard material to absorb stress, dissipate forces and resist fracture when a load is applied. Fatigue limit is determined by the incremental load required to cause fracture within a defined number of cycles. The diagram shows a load applied to a hard material in a the 3-point bend test.

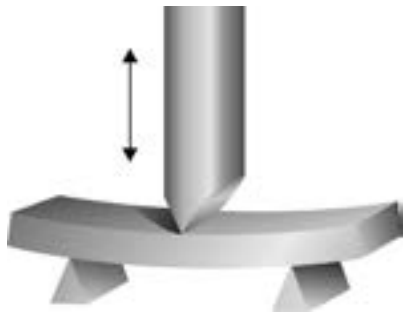
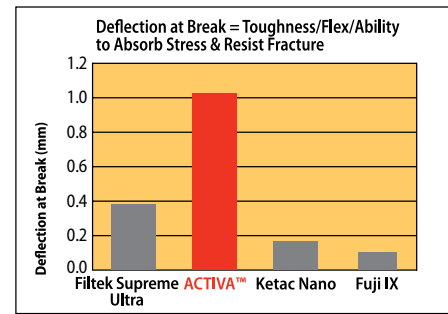


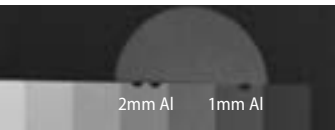
Fig 1: Illustration shows 3-point bend test  
Fig 2: Filtek = Composite; ACTIVA = BioACTIVE Composite; Ketac Nano = RMGI; Fuji IX = GI  
Source: University testing<sup>5,17</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/)) (For trademark information see page 6)



ACTIVA samples far outperform all leading restorative materials tested for toughness. Deflection at Break of ACTIVA is 2-3 times greater than composites and 5-10 times greater than GIs and RMGIs.

Radiopacity

The radiopacity of a 1mm thick circular disk of ACTIVA is equivalent to 1.5mm of aluminum.



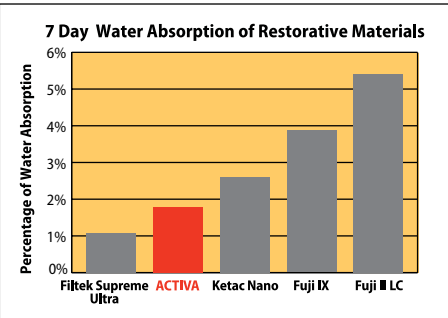
Physical Properties

Water Absorption

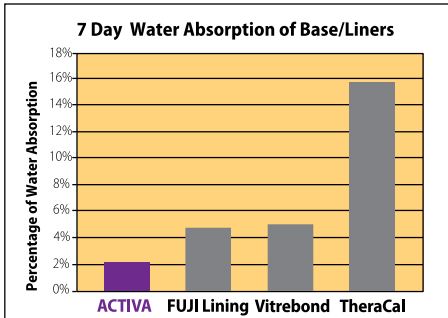
A controlled and relatively low level of water absorption is advantageous for bioactive materials, which require water to unlock their bioactive properties and potential for ionic exchange. Excessive water absorption can compromise the physical properties of restorative and base/liner materials over time.

Water absorption of ACTIVA BioACTIVE-RESTORATIVE is significantly less than glass ionomers and RMGIs, and is created to be slightly higher than composites, which are hydrophobic and not bioactive.

Water absorption of ACTIVA BioACTIVE-BASE/LINER is far less than RMGIs. Water absorption of TheraCal is 7 times greater than ACTIVA.



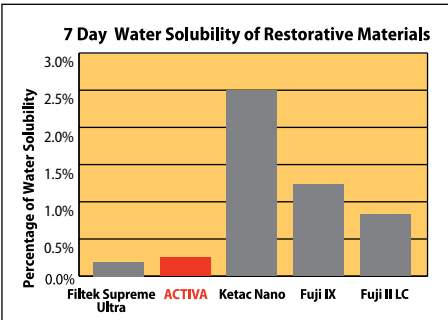
ACTIVA = BioACTIVE Composite; Filtek Supreme Ultra = Composite; Ketac Nano = RMGI; Fuji IX = GI; Fuji II LC = RMGI  
ACTIVA = BioACTIVE Base/Liner; Fuji Lining & Vitrebond = RMGI; TheraCal = Resin-Modified Calcium Silicate  
Source: Pulpdent testing<sup>8,20</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/)) (For trademark information see page 6)



Water Solubility

Low water solubility is important for ensuring the durability and longevity of a dental material. The patented resins and reactive glass fillers in ACTIVA products are balanced to deliver both bioactivity, which requires water, and durability. This unique combination of attributes, when combined with esthetics, sets ACTIVA apart from all other restorative materials.

ACTIVA has remarkably low water solubility that compares favorably with leading composites and is far lower than glass ionomers and RMGIs.



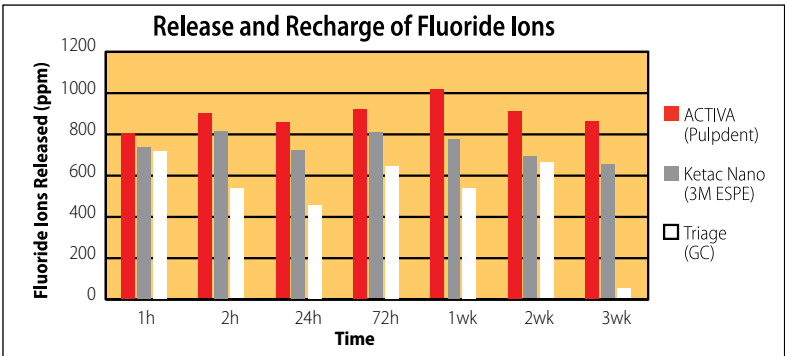
Source: Pulpdent testing<sup>20</sup> (For trademark information see page 6)

Bioactive Properties

Fluoride Release and Recharge

ACTIVA releases and recharges with fluoride, providing long-term patient benefits for improved oral health care.

University testing using fluoride ion concentration gradient diffusion methodology shows the pattern of release and recharge of ACTIVA, Ketac Nano and Triage. The study concludes that "at the seven time points tested, the new bioactive material [ACTIVA] has statistically greater fluoride release after recharge at 24 hours, 1 week and 3 weeks than the other groups tested."

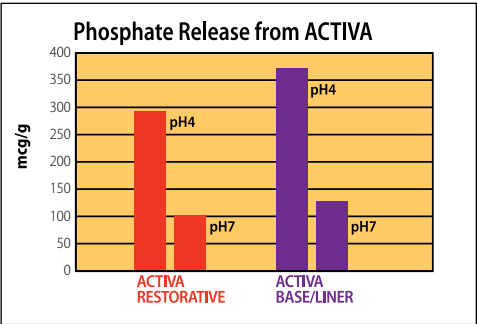


Source: University testing<sup>1</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/)) (For trademark information see page 6)

Bioactive Properties

Phosphate Release

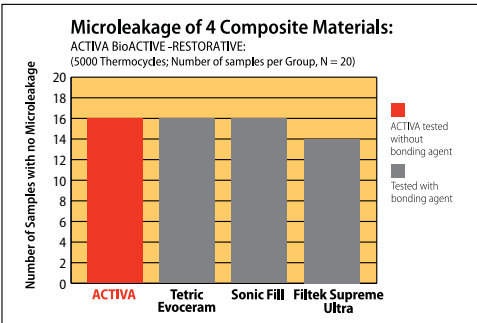
ACTIVA is a “smart” material that responds to pH cycles in the mouth. During low pH demineralization cycles, ACTIVA releases more phosphate. The phosphate ions can reside in the pellicle layer or saliva and are available to interact with calcium and fluoride ions during higher pH cycles.



Source: Pulpdent testing<sup>9</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/))

Microleakage

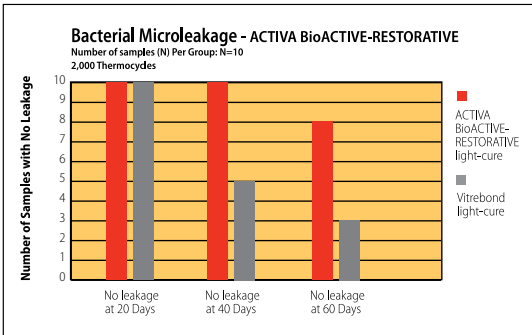
ACTIVA BioACTIVE-RESTORATIVE, when tested in vitro for microleakage *without a bonding agent*, compares favorably with leading composites tested *with a bonding agent* (Scotchbond Universal Adhesive, 3M ESPE).



Source: University testing<sup>16</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/))  
(For trademark information see page 6)

Bacterial Microleakage

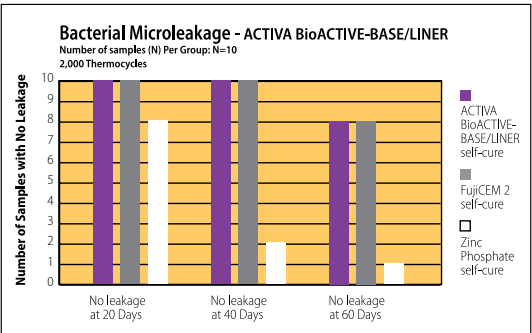
ACTIVA BioACTIVE-RESTORATIVE outperforms a leading RMGI when tested for bacterial microleakage in vitro after 2,000 thermocycles.



Source: Zmener O, Pameijer CH, et al.<sup>2</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/))  
(For trademark information see page 6)

Bacterial Microleakage

ACTIVA BioACTIVE-BASE/LINER compares favorably with a leading resin modified glass ionomer material when tested for bacterial microleakage in vitro after 2,000 thermocycles.



Source: Zmener O, Pameijer CH, et al.<sup>2</sup> (For references: [www.activabioactive.com/references/](http://www.activabioactive.com/references/))  
(For trademark information see page 6)

ACTIVA 30-month Recall



**1A** October 7, 2012  
ACTIVA BioACTIVE-RESTORATIVE post-op.  
*Courtesy of Dr. John Comisi*



**1B** March 23, 2015  
30-month recall shows great esthetics, no wear or chipping, and no marginal staining.

ACTIVA BioACTIVE-BASE/LINER



**2A** Shows prepared tooth after removing deep caries under a failed composite restoration.



**2B** Shows ACTIVA BioACTIVE-BASE/LINER placed and cured. No etching required. Note dentin shade match.

Replace Failed Composite with ACTIVA BioACTIVE-RESTORATIVE



**3A** Shows 5-second etch. After rinsing, all excess moisture is removed.



**3B** ACTIVA BioACTIVE-RESTORATIVE is placed through bendable metal cannula.



**3C** Explorer is used to create anatomy.



**3D** Shows finished and polished restoration.  
*Courtesy of Dr. Mark Cannon*

Minimally Invasive Class II



**4A** Shows minimally invasive tooth preparation.  
*Courtesy of Dr. Leon Katz*



**4B** After 5-second etch and removal of excess moisture, shows esthetic ACTIVA restoration.

Core Build Up



**5A** ACTIVA is used to build the core on a badly broken down molar.  
*Courtesy of Dr. Robert Lowe*



**5B** Tooth is ready to receive a crown.

Repairing Caries Under Crown Margin



**6A** Caries under crown margin has been removed. 5-second etch and removal of all excess moisture not shown..  
*Courtesy of Dr. Robert Lowe*



**6B** Moisture-friendly ACTIVA bonds to tooth, metal and ceramics, and mimics the function of missing tooth structure.

Repairing Sensitive Cervical Lesions



**7A** Shows cervical lesions of lower bicuspid.  
*Courtesy of Dr. C.H. Pameijer*



**7B** After etching, bonding agent was applied for added retention. ACTIVA provides esthetics, bioactivity, and patient comfort.



Tuff-Temp™ Plus Provisional Veneer, Crown & Bridge Resin

TTP*	Tuff-Temp Plus 50 mL automix cartridge, 20 automix tips, 3 mL Tuff-Temp Glaze, 1.2 mL Tuff-Temp Add-on	167.50
TTP5*	Tuff-Temp Plus 5 mL automix syringe, 8 automix tips, 3 mL Tuff-Temp Glaze	44.00

\*Specify shade: A1, A2, A3, A3.5, B1, B (Bleach)

Improved Rubberized-Urethane™ Chemistry  
Dual Cure

- Tough and resilient
- Impact and fracture resistant
- Tight fitting temps grip teeth securely
- Greatly reduces breakage and cementation failures
- Grinds without softening or gumming up
- Trims to crisp and perfect margins
- Does not gum up finishing instruments
- Self-cure with fast light cure option

Plus

- Enhanced esthetics
- Faster setting time
- Snap set
- Fluorescence added

Physical Properties

- Working time: 45 seconds
- Initial self-cure setting time: 2 minutes from start of mix (75 seconds after insertion in the mouth)
- Final self-cure setting time: 4:45 minutes from beginning of mix
- Light cure setting time: 20 seconds (halogen light)
- Flexural strength: 77 MPa
- Compressive strength: 200 MPa
- Deflection at break: 2.9 mm
- Vickers Hardness: 514 MPa



Finally... Temps that stay on and don't break.

Tuff-Temp™ Plus

provisional veneer, crown & bridge resin ■ dual cure

Tuff-Temp Provisional Glaze

TTG	Tuff-Temp Glaze, 6 mL bottle	49.00
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A light cure glaze with the same proprietary rubberized-urethane chemistry that provides enhanced esthetics and patient satisfaction during temporization.

Tuff-Temp Provisional Add-on

Included in the 50 mL cartridge kit. Not sold separately.

This shade-matching flowable Add-on is light cure and is formulated from the same proprietary rubberized-urethane chemistry. It is ideal for making alterations and for smile design.

Rubberized-Urethane™

Patented

Rubberized-Urethane™ Chemistry - Dual Cure

Pulpdent has inserted a synthetic rubber molecule into the diurethane dimethacrylate monomer to create a proprietary rubberized-urethane resin. This material is tougher and more impact resistant, and provides greater dimensional stability and tighter fitting provisional restorations, than acrylics and bis-acrylics. Breakage and debondings are minimized or eliminated.

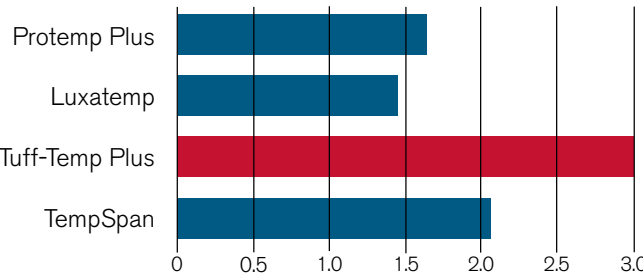
The material grinds and powders producing crisp and accurate margins that do not soften or distort. Finishing instruments do not gum up or clog.

The light cure option produces a full strength restoration on demand and is ideally suited for use with a clear vinyl polysiloxane template.

Flexural Strength / Deflection at Break

Tuff-Temp Plus exhibits very high flexural strength without brittleness. Its far greater deflection at break, the key indicator of toughness, is 50% to 100% greater than bis-acrylics.

Deflection at Break (mm)\*



\* Internal Pulpdent testing. ProTemp, Luxatemp and ProSpan are trademarks of 3M ESPE, DMG and Pentron respectively.

Tuff-Temp Plus 12-Unit Provisional



1 Fill matrix ¾ full with Tuff-Temp Plus and seat in the mouth.



2 Removal time is 2 minutes from the beginning of the mix (approximately 75 seconds after insertion in the mouth).



3 Check the provisional restoration for marginal integrity.



4 The provisional is trimmed and polished but not yet glazed. Note the perfect margins.



5 The 12-unit provisional is glazed and cemented to place. The margins and esthetics are exceptional.



6 Note the excellent tissue condition upon removal of the provisional four weeks later.

Photography courtesy of Dr. Christopher Ramsey

Tuff-Temp Plus 2-Unit Provisional



1 Crown preps have been completed on the premolar and molar.



2 Fill matrix ¾ full with Tuff-Temp Plus and seat in the mouth. The time-saving, light cure option can be used with the clear template shown in this case.



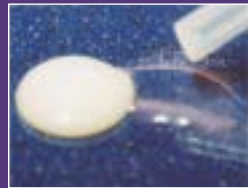
3 The 2-unit provisional is trimmed and glazed.



4 The finished Tuff-Temp Plus provisional. Finally, esthetic temporaries that stay on and don't break.



## Bioactive Materials, Ionic Resins

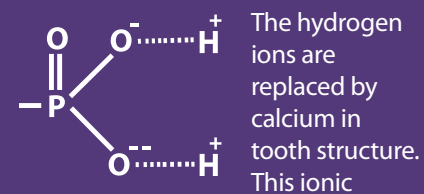


A drop of water is placed next to uncured Embrace resin.



Embrace mixes with the water.

In the presence of moisture, the uncured Embrace resin is acidic and simultaneously etches, ionizes, and adheres to tooth structure. Ionization is the breaking up of a compound into its ionic components, and in Embrace resins, hydrogen ions break off from the phosphate acid group.



interaction binds the resin to the minerals in the tooth, forming a strong resin-hydroxyapatite complex and a positive seal against microleakage.



When cured, Embrace resin is not a static material. It is a dynamic, bioactive system. Fluoride from supplements and dietary sources recharge the saliva and Embrace resin.

Bioactive materials react continuously in the mouth to changes in the oral environment and enhance the dynamic ionic exchange between saliva, restorative materials, and tooth structure.

## EMBRACE™ WetBond™ Materials

For the Dynamic Oral Environment

### Proactive Dentistry, Bioactive Materials, Ionic Resins



The increasing focus on prevention and early childhood care, the need to serve a broader demographic and expanding population, and the emergence of bioactive materials that directly benefit our patients, offer new opportunities for our profession.

Looking to the future, advances in oral health care will involve harnessing technologies that unlock nature's healing powers with bioactive materials that behave favorably in the moist oral environment, neutralize conditions that cause dental caries, and maximize the potential for remineralization. Pulpdent is working toward that future.

The development of bioactive materials is inspired by nature, where water is the source of life. In the oral cavity, saliva is the vital stream and is rich with water and ionic components.

Bioactive materials are hydrophilic and have the potential for dynamic behavior because they are partly water-based, or have phases with significant water content. Ionization occurs when water is present and allows these materials to react to changes in the ambient conditions. This is often referred to as "smart" behavior.\*

Saliva and the oral environment are exposed to continuous changes and pH cycles. When the pH is low, the demineralization process releases calcium and phosphate ions from the tooth surfaces. As the pH rises, these ions interact with the fluoride ions in our saliva and precipitate onto the teeth in the form of acid-resistant fluorapatite.

Most traditional dental resins are hydrophobic, repel saliva, and require a dry field. They are designed to be passive and to have a relatively neutral existence in the mouth. This passive approach does not take advantage of the positive gains that can be achieved with active materials that behave in a dynamic fashion in the oral environment.\*

Pulpdent has developed Embrace WetBond, a bioactive ionic resin that is designed to take advantage of the moisture that is always present in the mouth. Embrace is hydrophilic and even contains a small amount of water. It has attributes that mimic nature and responds to changes in the oral environment.

\*McCabe JF, et al. Smart materials in dentistry. School of Dental Sciences, Newcastle University, UK

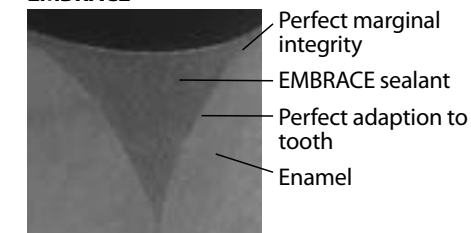
## EMBRACE™ WetBond™ Pit & Fissure Sealant



### Exceptional Marginal Adaptation\*

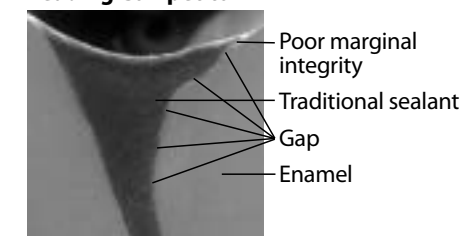
Embrace resins form an intimate association with the moist tooth. They are tooth integrating, creating a margin-free interface between the resin and the tooth that eliminates microleakage.

#### EMBRACE



SEM shows Embrace Pit & Fissure Sealant without bonding agent. Note the smooth margin and the extraordinary adaptation of the sealant to the tooth.

#### Leading Competitor



SEM shows leading competitor's traditional pit and fissure sealant without bonding agent. Note the large gap between the sealant and the tooth.

\* Kane B, Karren J, Garcia-Godoy C, Garcia-Godoy F. Sealant adaptation and penetration into occlusal fissures. Am J Dent 2009;22(2):89-91.

▶ For a full discussion of Embrace Technology visit our website at [www.pulpdent.com](http://www.pulpdent.com).

## Clinical Performance of EMBRACE WetBond Pit & Fissure Sealant<sup>1,2</sup>

Long-term Report  
by Howard E. Strassler, DMD<sup>3</sup> and  
Joseph P. O'Donnell, DMD, MS<sup>4</sup>

### Objective

This study assessed the clinical performance of Embrace WetBond Pit & Fissure Sealant in a pediatric dental practice.

### Trial Conditions

Children who came for routine six-month preventive visits were chosen. Primary and permanent posterior teeth were selected provided they had no cavities or restorations. There were no other exclusionary criteria. Even difficult patients and children with poor oral hygiene and dietary habits were included in the study.<sup>1</sup>

A total of 334 teeth sealed with Embrace WetBond Pit & Fissure Sealant were evaluated over a period of four to six years.<sup>2</sup>

### Results

After four to six years, 299 of 334 sealants were in excellent condition. Of the remaining teeth, 32 required resealing with no evidence of occlusal caries, and only three teeth developed occlusal caries. The sealed teeth were 99% caries free.<sup>2</sup>

### Conclusion

Embrace WetBond Pit & Fissure Sealant provides exceptional results and eliminates problems experienced in the past with traditional resin-based sealants. The ability to bond in the presence of moisture simplifies the procedure and is less technique sensitive, especially when treating children.

1. O'Donnell JP. A moisture-tolerant resin-based pit and fissure sealant: research results. Inside Dentistry 2008;4(7):50-52  
2. Strassler HE, O'Donnell JP. A unique moisture-tolerant, resin-based pit and fissure sealant: clinical technique and research result. Inside Dentistry 2008;4(9):108-110  
3. Professor and Director of Operative Dentistry  
University of Maryland Dental School Baltimore, Maryland  
4. Associate Clinical Professor, Tufts University School of Dental Medicine Boston, Massachusetts  
Private Practice, Winchester, Massachusetts



EMBRACE™ WetBond™ Pit & Fissure Sealant

<b>36.6% Filled</b>		
EMS	Kit: 4 x 1.2 mL syringes sealant, natural shade + 20 applicator tips	85.95
EMSB	Bulk Pack: 20 x 1.2 mL syringes, natural shade + 100 applicator tips	355.00
EMS3	3 mL syringe, natural shade	43.25
EMSW	Kit: 4 x 1.2 mL syringes sealant, off-white shade + 20 applicator tips	85.95
EMSWB	Bulk Pack: 20 x 1.2 mL syringes, off-white shade + 100 applicator tips	355.00
EMS3W	3 mL syringe, off-white shade	43.25
<b>7.9% Filled (Low Fill)</b>		
EMSWLF	Kit: 4 x 1.2 mL syringes Low Fill sealant, off-white shade + 20 applicator tips	85.95
EMSWLFB	Bulk Pack: 20 x 1.2 mL syringes Low Fill sealant, off-white shade + 100 applicator tips	355.00

Fluoride Releasing • Light Cure • Wet Bonding • Radiopaque

Contains No Bisphenol A, No Bis-GMA

Now available in two formulas:  
Regular Fill: 36.6% filled  
Low Fill: 7.9% filled

Embrace is remarkable for its ability to bond to the moist tooth, its sealing ability, and its adaptation to tooth structure. The margins are undetectable, and the long-term success has been reported in the literature.<sup>1,2</sup> Independent research shows that Embrace compares favorably with glass ionomers, and is superior to other resin-based sealants, when evaluated for remineralization capacity.<sup>3</sup> Research also shows that Embrace has longer lasting antibacterial activity compared to other leading brands, especially against *S. mutans*,<sup>4</sup> No other material compares or has all these advantages.

Moisture Tolerant - Bonds in a moist field

- Wet-bonding resin technology
- Tooth integrating. Seals against microleakage
- Margin-free. No chipping. No staining
- Fewer steps. Saves time and money
- No drying or bonding agents required
- Available in off-white or natural shade

Physical Properties

- Compressive Strength: 34,800 p.s.i., 240.0 MPa
- Diametral Tensile Strength: 6300 p.s.i., 43.4 MPa
- Percent Solubility: 0.06% Film Thickness: 12 microns

1. Strassler HE, O'Donnell JP, Inside Dentistry 2008;4(9):108-110.  
2. O'Donnell JP, Inside Dentistry 2008;4(7):50-52  
3. Silva KG, et al., Acta Odontol Scand 2010;68(1):11-18.  
4. Naorungroj S, et al., J Dent 2010;38(5):387-391.

EMRACE WetBond Procedure



1 Clean teeth and apply Etch-Rite™ for 15 seconds.



2 Rinse and lightly dry. Leave teeth slightly moist, and apply Embrace Pit & Fissure Sealant to the moist teeth.



3 Light cure. Embrace cures with all lights.



4 After curing, the margins are undetectable with an explorer.

Photos courtesy of Dr. Christopher Ramsey

Proactive Dentistry  
Bioactive Materials  
Ionic Resins

"It's an absolutely sensational product!"

– John D. Doykos III, DMD, MSD

"Virtually undetectable margins"

– Dental Advisor 2004; 21(8)

"Bonds under adverse conditions."

– Reality 2006

"[Sealants] looked the same as they did the day we placed them."

– RDH 2006;26(7)



Seal-Rite™ Pit & Fissure Sealant

20 years of clinical success and a reputation for excellence

- No bisphenol A detected<sup>1</sup>
- Fluoride release. Fluoride uptake by enamel<sup>2</sup>
- Choice of two viscosities
- Superior flow on tooth surfaces
- Light cure
- Radiopaque



1. Nathanson D, Lertpitayakun P, Lamkin MS, Edalatpour M, Chou LL. In vitro elution of leachable components from dental sealants. JADA 1997;128:1517-1523.  
2. Temin SC, Csuros Z, Mellberg JR. Fluoride uptake from a composite restorative by enamel. Dent Mater 1989;5:64-65.

Seal-Rite™

<b>Light Cure • 34.4% filled, off-white shade</b>		SEAL	Kit: 4 x 1.2 mL syringes Seal-Rite + 8 applicator tips	63.50
		SEAL-3	Seal-Rite, 3 mL syringe	35.75

Seal-Rite™ Low Viscosity

<b>Light Cure • 7.7% filled, off-white shade</b>		SEAL-LV	Low Viscosity Kit: 4 x 1.2 mL syringes Seal-Rite LV + 8 applicator tips	63.50
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Seal-Rite Procedure



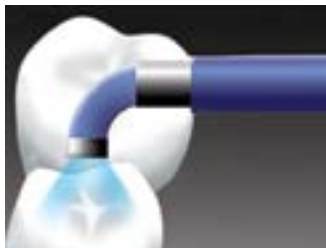
1 Clean and etch teeth.



2 Rinse and dry.



3 Apply Seal-Rite.



4 Light cure.

Seal-Rite™ Procedure Kit

For your convenience, a kit containing etch gel, drying agent and pit and fissure sealant.

RITE	Kit: 4 x 1.2 mL syringes: 2 x Seal-Rite, 1 Etch-Rite™, 1 Dry-Rite + 12 applicator tips	51.00
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EMBRACE™ WetBond™ Resin Cement

- Medium or Low Viscosity
- 7 gm or 3.5 gm Auto-Mix Syringe

EMCA	Low Viscosity Automix Syringe Kit: 7 gm cement, 20 automix tips, 1.2 mL each Seal-n-Shine™ and OxOut™ + accessories	114.95
EMCAR	Low Viscosity Automix Syringe Refill: 7 gm cement, 20 automix tips	83.50
EMCAR2	Low Viscosity Automix Syringe Refill: 3.5 gm cement, 10 automix tips	44.50
EMCM	Medium Viscosity Automix Syringe Kit: 7 gm cement, 20 automix tips, 1.2 mL each Seal-n-Shine™ and OxOut™ + accessories	114.95
EMCMR	Medium Viscosity Automix Syringe Refill: 7 gm cement, 20 automix tips	83.50
EMCMR2	Medium Viscosity Automix Syringe Refill: 3.5 gm cement, 10 automix tips	44.50

Dual Cure • Fluoride Releasing Radiopaque

Contains No Bisphenol A, No BIS-GMA

Embrace Resin Cement is the first self-adhesive resin cement that bonds to the slightly moist tooth. Embrace is a hydrophilic resin, not a glass ionomer, and is formulated to be fully compatible with the moist oral environment. Embrace forms chemical bonds to dentin and enamel, precious and non-precious metals, ceramics, composites, and fiber posts. Bonding agents are not required; however, they can be used if desired. It is not necessary to etch dentin, but etching uncut enamel surfaces is indicated.

Self Adhesive - Moisture Tolerant

- Bonds in a slightly moist field
- Self-adhesive
- Self-etching to dentin
- Eliminates microleakage

For cementation of PFM, gold, CEREC®\* and reinforced ceramics for crown and bridge; gold, metal, titanium and fiber posts; and for inlays.

Recommended for Zirconium

The retention of Embrace to zirconium has been independently tested. Retention value for Embrace is 29.32 kg, which indicates that Embrace performs equal to or better than the leading cement brands. "The retention values for Zirconium copings are enough to recommend, without reservation, Embrace Resin Cement for Zirconium restorations."\*

\*Pameijer CH. Retention of zirconium crowns with the use of Embrace WetBond Resin Cement. November 9, 2012

Physical Properties

- Compressive Strength: 44,500 p.s.i.
- Diametral tensile strength: 7,600 p.s.i.
- Retention value: 32 kg (non-threaded titanium post)
- Film thickness: 12 microns

\* CEREC is a registered trademark of Sirona Dental Systems, Germany.



Embrace™ WetBond™ Resin Cement

No Sensitivity

Embrace Resin Cement is biocompatible, nonirritating, self-adhesive, contains no solvents, requires no etching or drying of dentin, and provides an exceptional seal against microleakage. These features eliminate the major causes of sensitivity: the drying of dentin, microleakage, movement of fluids in the dentinal tubules, acids and chemical irritants.

Long Working Time

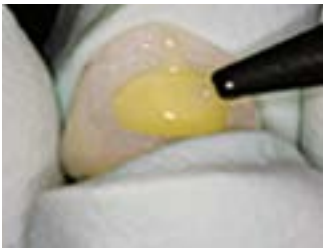
Embrace Resin Cement is oxygen inhibited, providing the advantage of long working time in the presence of oxygen. It does not set on the mixing pad, but it sets under the restoration. To test the setting properties, place the cement between two pennies. After 4 minutes at room temperature (3 minutes at mouth temperature), try to separate the coins.



Simple, All-Surface Cementation



1 Prepare teeth to receive restorations. Leave teeth slightly moist. No etching, silane or bonding agents are required.



2 Simply dispense cement directly into the restoration from the automix syringe.



3 Seat the restoration, light cure 1-2 seconds and remove excess cement.



4 The final result.

Photos courtesy of Dr. Christopher Ramsey



For a full discussion of Embrace resin chemistry, or to view slide presentations and instructions for use, please visit our website at [www.pulpdent.com](http://www.pulpdent.com).

Kleer-Veneer™ Light Cure Veneer Cement

The Choice is Kleer

Unique crystal CLEAR shade provides accurate visualization and precise shade verification before curing

Kleer-Veneer is a one-of-a-kind, moisture tolerant, self-adhesive veneer cement. No bonding agents are required on enamel, nor is silane necessary on ceramic. Etching and bonding to dentin is indicated. Kleer-Veneer's unique consistency holds the veneer in place without drift or movement.

Choose from one clear shade and three opaque shades.

Kleer-Veneer CLEAR!

The crystal clear cement that will not alter final shade. Margins are undetectable.

Kleer-Veneer OPAQUE!

3 shades that neutralize existing tooth color:

- CREAM Shade
- PINK Shade
- WHITE Shade

Unique Advantages

- Clear shade – Crystal clear before and after curing
- Self-adhesive – No bonding agents or silane required for enamel and ceramic
- Unique consistency holds veneers in place without drift or movement
- Moisture tolerant
- Stain resistant

Kleer-Veneer Procedure



1 The teeth are prepared for veneers and impressions made.



2 Kleer-Veneer CLEAR shade is placed on the veneers, the veneers are seated and excess cement is removed with a fine brush. Light cure with a halogen light or any light that emits a wavelength of 390 nanometers.



3 The Final Result. Kleer-Veneer CLEAR shade is crystal clear throughout the procedure and allows for accurate visualization and precise verification of shade prior to curing. There is no shade change after curing.

Photos courtesy of Dr. Robert A. Lowe

KV*	1.2mL syringe Kleer-Veneer	33.00
	*Specify shade: 1 = Clear, 2 = Cream, 3 = Pink, 4 = Opaque White	

Physical Properties

- Shear Bond Strength: 20 MPa to etched enamel and ceramic without bonding agents or silane. 23.7 MPa to etched dentin with a bonding agent.
- Film thickness: 9 microns





ResiLute™ Multi Purpose Resin Cement

RES-U    Kit: Universal Shade, 4 gm base, 4 gm catalyst, 1.2 mL OxOut™    74.00

Dual Cure • Fluoride Release • Radiopaque

Exceptional Strength

ResiLute™ is an exceptionally strong dual cure resin cement for permanent cementation of all metal castings, of indirect ceramic and composite restorations such as laminate veneers, inlays, onlays and crowns, and for bonded amalgam restorations. OxOut™ Oxygen Inhibiting Gel can be placed on the margins to eliminate the air inhibited layer.

- 68.2% filled
- Nominal particle size: 0.7 microns
- Low Film thickness: 15 microns
- Universal and clear shades
- Oxygen inhibition provides long working time
- Light cures on demand or self-cures in 6 minutes



1 These amalgam restorations will be replaced with ceramic onlays.



2 After etching the preparations, DenTASTIC™ UNO™ adhesive is applied and light cured.



3 The onlays are cemented to place with ResiLute™ clear shade. The excess is removed with a suitable instrument.



4 The finished case.

Glass Ionomer Cements

All Pulpdent Glass Ionomer Cements Offer These Outstanding Benefits:

- Fluoride ion release
- Low coefficient of thermal expansion: 9 ppm
- Excellent bond strength to dentin and enamel
- Acid-etchable
- Very high compressive and diametric tensile strengths
- Controlled setting to prevent rapid dehydration which has been shown to cause pulpal sensitivity

GlassFill™

- For restoring cervical erosions, root caries and class III and IV cavities
- For fissure sealing and restoring deciduous teeth
- Use alone or with composite overlay and as liner in “sandwich” technique. Radiopaque

IFU    GlassFill Kit: 30g powder, 15 mL liquid, mixing pad, scoop    59.50

GlassLine™

- For a thin liner under Class III & V and shallow Class I & II composite and amalgam restorations, and for cervical erosion
- For cementing crowns, bridges and posts
- Radiopaque

ILI    GlassLine Kit: 30g powder, 15 mL liquid, mixing pad, scoop    59.50

GlassLute™

- For cementing crowns, bridges and posts
- High adhesion to tooth and restoration
- High diametric tensile strength to withstand masticatory forces
- Universal tooth shade
- Film thickness: 15 microns
- Radiolucent

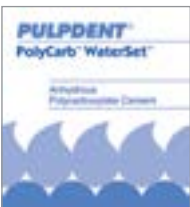
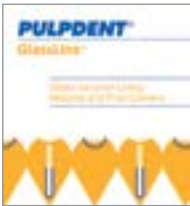
ILU    GlassLute Kit: 30g powder, 15 mL liquid, mixing pad, scoop    59.50

PolyCarb™ WaterSet™ Anhydrous Polycarboxylate Cement

Kind to the Pulp

This non-irritating material is recommended for temporary and permanent cementation of crowns, bridges and inlays. Restorations hold securely but can be removed, if necessary. With this anhydrous cement, the polyacrylic acid is incorporated in the powder. Just add water and mix. A thick mix does not flow down under tissue but instead rolls over the sulcus, providing easy removal of excess.

CPC    Kit, 60g powder, mixing pad, dropper bottle, scoop    44.00



5th Generation Light Cure **DenTASTIC™ UNO™**

UNO	UNO™ Kit: 2 x 6 mL UNO™, 5 mL Etch-Rite™, 20 applicator tips, 50 brush tips, brush handle	152.00
UNO-R	6 mL bottle UNO™	79.50

**One Step Wet Bonding**

For all direct bonding light cure applications. UNO™ is an effective, single-component adhesive for bonding to dentin, enamel, porcelain, metal, composite and other resins.

**DenTASTIC™ UNO™ Shear Bond Strength**

Adhesive	Mean (Mpa)	S.D.
DenTASTIC™ UNO™	34.2	3.2
One-Step	32.6	3.6
Prime & Bond 2.1	31.8	4.0

Testing performed at Department of Restorative Dentistry, The University of Texas Health Science Center at San Antonio

One-Step and Prime & Bond 2.1 are trademarks of Bisco, Inc. and Dentsply International Inc. respectively.

**Patented Adhesive Chemistry**

Pulpdent manufactures DenTASTIC UNO and UNO-DUO under license from patents developed by Dr. Rafael Bowen and assigned to the American Dental Association Health Foundation. DenTASTIC UNO combines the patented PMGDM adhesive primer with hydrophilic resins and acetone solvent into an exceptionally strong single component adhesive that is the result of many decades of research. PMGDM is synthesized by Pulpdent in its laboratories in Watertown, Massachusetts using a proprietary manufacturing process known only to Pulpdent.



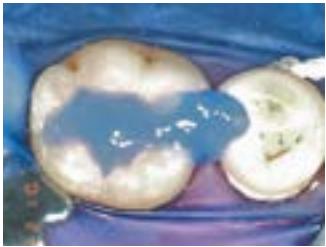
A wide variety of adhesives is available to the practitioner. While most products provide adequate bond strength, it is microleakage that leads to recurrent caries and failure. Independent research indicates that fourth and fifth generation total etch adhesives are unsurpassed when measured for microleakage and bond strength.

DenTASTIC™ UNO™ combines the primer and unfilled resin phases into a single component adhesive. It forms an interlocking matrix with the exposed collagen and dentinal tubules, creating a “hybrid layer” that provides extraordinary micromechanical retention. UNO™ also forms a resin layer to which composite and resin cement will chemically bond with great strength.

Many practitioners still prefer the versatile and dependable fourth generation, all-purpose system for bonding to dentin, enamel, porcelain, resins, and precious and non-precious metals and alloys.



**DenTASTIC™ UNO™ and UNO-DUO™ Procedure**



**1** Apply Etch-Rite™ to the cavity prep for 15 seconds.

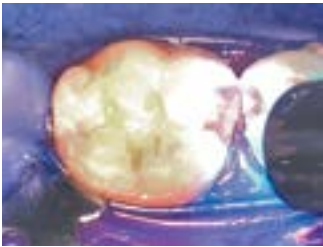
Photos courtesy of Dr. C. H. Pameijer



**2** Rinse and leave dentin moist for wet bonding technique.



**3** Use DenTASTIC™ UNO™ for light cure, or UNO + DUO for self-cure or dual cure applications.



**4** Light cure for only 10 seconds.

5th Generation Dual Cure **DenTASTIC™ UNO-DUO™**

UNDO	UNO-DUO™ Kit: 6 mL UNO™, 3 mL DUO, 5 mL Etch-Rite™, 20 applicator tips, 50 brush tips, brush handle	152.00
DUO	3 mL bottle DUO™, dual cure catalyst for UNO	71.80

**Simplified Dual Cure Adhesive**

DUO is the dual cure catalyst for DenTASTIC™ UNO™. Use UNO-DUO™ for indirect restorations, core build ups, or whenever self-cure or dual cure capability is indicated. Independent testing shows excellent results\*

4th Generation Dual Cure **DenTASTIC™**

**All-Purpose Dental Adhesive System**

DenTASTIC™ is a reliable and easy to understand system for bonding to all tooth and restorative materials. The system has both light cure and dual cure capability. The hydrophilic adhesive primers (A, B & C) and the unfilled resin bonding agents (1 & 2) are offered as separate components. There is a unique metal primer (C), and the light cure resin bonding agent Part 1 can also be used to wet plastic instruments to prevent them from sticking to composites.

DenTASTIC incorporates PMGDM with the magnesium salt of NTG-GMA. Research shows this is superior to the earlier PMDM formulas.\*\*

\*10 minute bond strengths of 34 adhesives to 8 buildup resins. CRA Newsletter 2003;27(4):2.  
\*\*Bowen RL, inventor. Patent Nos. 4,514,527; 4,521,550; 4,588,756; 4,659,751.  
\*\*Venz S, Dickens B. Modified surface-active monomers for adhesive bonding to dentin. J Dent Res 1993;73(3):582-86.

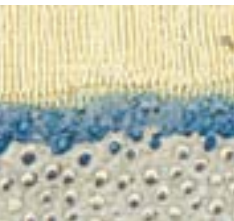
DAS-C1	DenTASTIC™ Refill Kit: 6 mL each Primers A, B & C; 6 mL each Unfilled Resin Bonding Agent Parts 1 & 2, 5 mL etch gel	154.00
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Components available separately.



**Dentin Adhesive Interface**

The gray lower portion shows the dentinal tubules in cross section. Adhesive primer resin tags appear as small reddish-blue dots in the tubules.



The hybrid layer is the blue band across the center. This is the interlocking matrix formed by the adhesive primer, which is stained blue, and the collagen fibers in the demineralized dentin surface.

The cream colored layer at the top is the unfilled resin bonding agent. It has chemically reacted with the adhesive primer, seen as the thin light blue band at the top of the blue hybrid layer.



Etch-Rite™ Dental Etching Gel

ETCH	Kit: 4 x 1.2 mL syringes gel + 8 pre-bent tips	19.30
ET-TWIN	Twin Pack: 2 x 3 mL syringes gel + 25 pre-bent tips	19.15
ET-6	6 mL (7.7 gm) syringe gel	9.05
ET-12	12 mL (15.4 gm) syringe gel	12.65
ET12G	12 gm (9.4 mL) syringe gel	11.05
ET-24	Bulk Pack: 24 x 1.2 mL syringes gel	67.75
ET-144	Clinic Pack: 144 x 1.2 mL syringes gel	349.00
ET-50	Jumbo Syringe Kit: 2 x 25 mL (64 gm) bulk syringes gel, 5 x 3 mL empty syringes + 50 pre-bent tips	49.85
ET-50R	Jumbo Refill: 2 x 25 mL syringes gel	34.85

38% Phosphoric Acid

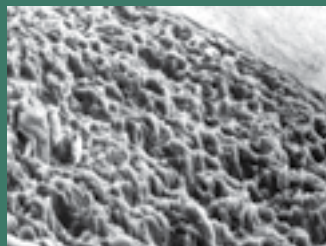
Etch-Rite™ is a soft, thixotropic gel with handling characteristics most preferred by clinicians. It dispenses through small gauge needles, stays where placed, washes off with ease, and provides the optimal etch pattern on dentin and enamel surfaces to ensure mechanical retention of bonding agents, restorative resins and resin cements. The blue gel is easily visible and the material is available in a wide variety of packaging options.

*The world standard for more than two decades and millions of applications*

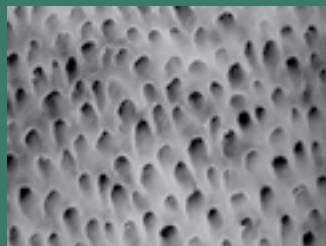
- Washes off easily without leaving any residue
- Stays where placed. Does not run onto exposed tissue
- 15-second etch
- Dispenses through small gauge tips for precise placement
- Packaged in syringes for convenient application

There are many packaging options, including 1.2, 3, 6, 9.4, 12 and 25 mL syringes. Economical bulk packs are also available.

The Effectiveness of Etch-Rite™ is Scientifically Proven



SEM shows the etched enamel surface after a 20-second application of Etch-Rite™. The smooth area in the upper right corner was not etched.



SEM of the dentin surface after a 15-second application of Etch-Rite™ shows removal of smear later and opened dentinal tubules.

Etch Royale™ Dental Etching Gel

37% Phosphoric Acid

For clinicians who prefer a creamier gel that readily settles into dentin and enamel, but does not run, Etch Royale is the perfect choice. The darker blue color is easier to see in thin applications. Etch Royale has all the same features as Etch-Rite™, but the consistency is slightly creamier than its famous sister product.

- Creamier Consistency
- Darker Blue Color

ER	Kit: 4 x 1.2 mL syringes gel + 20 pre-bent tips	21.50
ER6	6 mL (7.7 gm) syringe gel	9.20
ER12G	12 gm (9.4 mL) syringe gel	11.35
ER24	Bulk Pack: 24 x 1.2 mL syringes gel	69.00
ER50	Jumbo Syringe Kit: 2 x 25 mL syringes gel, 5 x 3 mL empty syringes + 50 pre-bent tips	50.80
ER50R	Jumbo Refill: 2 x 25 mL syringes gel	35.50



Etch-All™ Dental Etching Gel

10% Phosphoric Acid

Non-Silica Gel Formulation

Choose Etch-All when a milder, non-silica, acid etching gel is preferred.

- Thixotropic
- Stays where placed
- 30 second etch
- Syringe dispensing
- Washes off easily without leaving residue

EA	Kit: 4 x 1.2 mL syringes gel + 8 pre-bent tips	19.50
EA-6	6 mL syringe gel	11.25



Semi-Gel Etchant

35% Phosphoric Acid

A less viscous semi-gel often preferred by Orthodontists.

ET-18	18 gm bottle	15.00
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Highly Acclaimed Porcelain Etch Gel

PEG	Kit: 4 x 1.2 mL syringes gel + 8 applicator tips	51.50	<b>9.6% Hydrofluoric Acid</b>  Your first step when preparing ceramic surfaces for bonding <ul style="list-style-type: none"><li>• Does not stain ceramics or composites</li><li>• Buffered formula</li><li>• Superior quality</li><li>• Fast acting</li><li>• One-minute application</li></ul>
PEG-3	3 mL syringe gel	29.75	



Porcelain Etch Gel Procedure

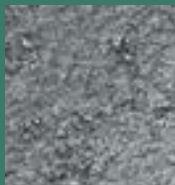
**1** This fractured PFM crown can be repaired intra-orally. Always etch porcelain surfaces of crowns, inlays and veneers prior to bonding.

*Photos courtesy of Dr. Howard Glazer*

**2** A one-minute application of Pulpdent Porcelain Etch Gel prepares the surface for bonding. The exposed metal surface of this crown is abraded with a fine diamond.

Superior Ceramic Surface Preparation

Proper surface preparation enhances bonding values of resins and resin cements to porcelain. These SEMs demonstrate the effectiveness of a one-minute application of Pulpdent Porcelain Etch Gel on a glazed porcelain surface.



SEM shows glazed porcelain surface BEFORE treatment.



SEM shows glazed porcelain surface AFTER 1-minute treatment with Pulpdent Porcelain Etch Gel. Note the microscopic tags in the porcelain surface.

(Magnification 500X)

Porcelain Prep Kit

PPK	Kit: 1.2 mL syringe each Porcelain Etch Gel, Kool-Dam™, Silane and Drying Agent + 12 applicator tips	50.00	An economical kit for preparing porcelain surfaces for bonding. Kit contains Porcelain Etch Gel, Kool-Dam™, Silane and Drying Agent. Use with your preferred composite or resin cement.
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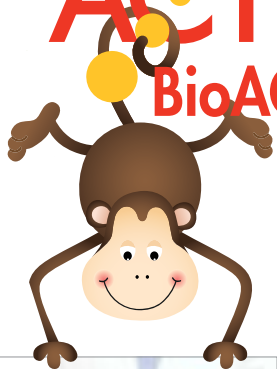


Silane Bond Enhancer

SIL	Kit: 4 x 1.2 mL syringes Silane + 8 applicator tips	43.00	This single component material increases the bond strength of organic resins, such as composites and resin cements, to porcelain. Apply silane to the etched and dried porcelain surface.
SIL-3	3 mL syringe Silane	25.00	



Introducing **ACTIVA™ kids** BioACTIVE-RESTORATIVE™



The Future of Dentistry Now in Your Hands

See pages 4-11 for detailed information on ACTIVA™ BioACTIVE.

**ACTIVA™ KIDS BioACTIVE-RESTORATIVE™**  
Requires ACTIVA-SPENSER™

**VKP**  
STARTER KIT: 5mL/8gm syringe Pedo Shade, ACTIVA-SPENSER™, + 20 automix tips with bendable 20-gauge metal cannula  
**\$185.99**

**VK1P**  
SINGLE REFILL: 5mL/8gm syringe Pedo Shade + 20 automix tips with bendable 20-gauge metal cannula  
**\$114.99**

**VK2P**  
VALUE REFILL: 2 x 5mL/8gm syringes Pedo Shade + 40 automix tips with bendable 20-gauge metal cannula  
**\$206.99**



Inspired by Nature. Created for Kids.

ACTIVA™KIDS is an ionic restorative resin that stimulates the natural healing process with release and recharge of calcium, phosphate and fluoride ions. It is an opaque, light B shade ideally suited for pediatric dentistry and contains No Bisphenol A, No Bis-GMA, No BPA derivatives.

**STIMULATES APATITE FORMATION**

ACTIVA™ elicits a natural response that heals from within - nature's way - with apatite formation that fills gaps and seals margins against microleakage.

**LONG-TERM PATIENT BENEFITS**

ACTIVA™ penetrates, protects and preserves teeth. It integrates and becomes part of the tooth providing long-term benefits and healthy smiles, without postoperative tooth sensitivity.

**REPLACES GIs AND RMGIs**

ACTIVA™ is esthetic, durable and moisture tolerant, and it releases more calcium, phosphate and fluoride than GIs and RMGIs. It continually adapts to tooth structure with no margins.

**DYNAMIC AND PROACTIVE**

ACTIVA™ is a "smart" bioactive material that plays a dynamic role in the mouth. It responds to pH changes with release of protective ions that help build strong, healthy teeth.

**EASY TO USE - SIMPLIFIED TECHNIQUE**

No capsules or trituration - a simple automix dispensing system with bendable applicator tip for easy access. Easy handling and finishing. Less chair time for your young patients.

**SAFE FOR CHILDREN - NO BPA – NO MERCURY**

ACTIVA™ KIDS is the perfect amalgam substitute and contains No Bisphenol A, No Bis-GMA, and No BPA Derivatives.

**ACTIVA™ is highly acclaimed by leading pediatric dentists:**

*The new [ACTIVA] products are seemingly unique and unprecedented in the dental restorative materials continuum.*

*Physical characteristics closely resembling the strengths and wear resistance of RBCs [resin-based composites].*

*White line margins . . . are conspicuously absent.*

*No complaints of postoperative tooth sensitivity.*

– Croll TP, Berg JH, Donly KJ  
Compendium 2015;36(1):60-65.

*Finally, a great pediatric restorative material that should satisfy all your needs for children's dentistry. I have been using it for years with outstanding results!*

– Dr. Mark Cannon

*The future of dentistry is bioactive materials. Activa is one of the best materials to hit the market in years. The marginal integrity, workability and esthetics are truly impressive.* – Dr. Josh Wren







Lime-Lite™ Light Cure Cavity Liner

Fluoride releasing • Radiopaque  
Universal Shade

Contains Hydroxyapatite

Specially formulated for use with today's adhesive dentistry, Lime-Lite contains hydroxyapatite in a urethane dimethacrylate resin. It releases calcium, hydroxyl, phosphate and fluoride ions, which are known to be beneficial to tooth structure, to stimulate secondary dentin formation and to have cariostatic properties.

- Light cure base/liner - sets extremely hard
- Chemically bonds to adhesives and composites
- Releases favorable calcium, hydroxyl, phosphate and fluoride ions
- Stimulates secondary dentin formation
- Insoluble in water and oral fluids
- Convenient syringe dispensing

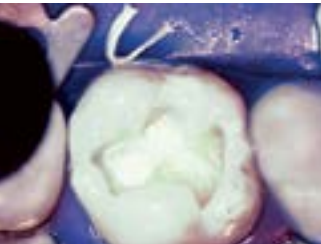
LIME	Kit: 4 x 1.2 mL syringes + 8 pre-bent tips	51.00
LIME-3	3 mL syringe	29.35



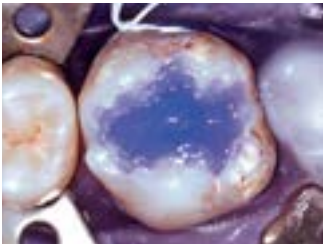
Lime-Lite Procedure



1 Place Lime-Lite in the cavity prep



2 Light cure Lime-Lite 20-30 seconds.



3 Etch the cavity prep with Etch-Rite™ 38% phosphoric acid.

Photos courtesy of Dr. C. H. Pameijer



4 Apply DentASTIC™ UNO™ to the moist dentin surface for light cure, or UNO + DUO™ for dual cure procedures.



5 Final restoration incrementally layered with composite.

Clinical Indications

- Post and core build-up after endo
- Direct bonded core without a post
- Vital tooth build-up for crown prep
- Re-cementing loose post and core
- Base/liner under restorations
- Permanent luting cement
- Repairing lost fillings and broken splints
- Patching broken cusps and porcelain

• Moisture Tolerant

• Cuts Like Dentin or Your Money Back

• One-step Post and Core Build-up

Formulated with  
ebrace™  
Ionic Resin

Spee-Dee™ Build-Up Multi-Purpose Core & Build-Up Resin

Dual Cure • Fluoride Releasing  
Moisture Tolerant • Radiopaque

Contains No Bisphenol A, No BIS-GMA

Spee-Dee Build-Up is specially formulated for one-step post cementation and core build up, ensuring a homogenous, one-piece internal structure.

Nothing simulates tooth structure like Spee-Dee™ Build-Up. This material really does cut like dentin. Rotary instruments cut smoothly and accurately and do not gum up or chatter.

The unique moisture tolerant chemistry has self-adhesive and self-etching properties. Etching dentin and the use of bonding agents are optional when there is retention form in the preparation.

Automix cartridge with angled tips for controlled dispensing.

SBU50	Spee-Dee Build-Up, 50 mL automix cartridge + 30 automix tips	168.00
SBU	Spee-Dee Build-Up, 25 mL automix cartridge + 20 automix tips	101.00

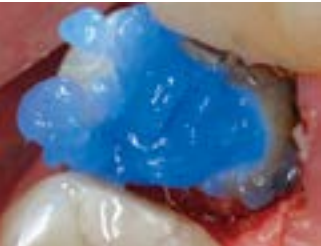


spee-dee™  
build-up  
multi-purpose core & tooth build-up resin

Post Cementation and Core Build-Up



1 After endodontic treatment, a molar is prepared with two post holes.



2 Pulpdent Etch-Rite™ is applied to the post holes and the preparation for 15 seconds (optional step).



3 After rinsing thoroughly, removing excess moisture and leaving the tooth slightly moist, Spee-Dee Build-Up is dispensed into the post holes and around the preparation.



4 The posts are inserted with a twisting, up and down motion to ensure uniform coverage of Spee-Dee Build-Up, and then light cured for 20 seconds.



5 Spee-Dee Build-Up is now applied around the posts to the occlusal level.



6 The post and core preparation is trimmed and finished and ready for an impression or digital scan.



HardCore™ Core Build-Up Material

HC	Kit: 20 gm base, 20 gm catalyst, 20 core forms + accessories	108.50
HC-R	Refill: 10 gm base + 10 gm catalyst	49.50
HCF-AS	Core Forms, box of 64, assorted sizes	40.00

Dual Cure • Fluoride Releasing Radiopaque

A super-strong restorative for building up broken down teeth. Post cores are quickly prepared. Convenient core forms speed the process.

- 2-paste, dual cure system
- Off-white shade easily distinguished from dentin
- Mixes easily, resists slumping, sets exceptionally hard
- Tapered core forms in 4 sizes



1 The tooth is prepared and ready to be restored.



2 Etch-Rite™ etching gel is applied for 15 seconds.



3 DenTASTIC™ UNO-DUO™, dual cure adhesive, is applied to the moist tooth surface.



4 Shows HardCore™ in place and the tooth ready for an impression or digital scan.

Core Forms

HCF-AS	Core Forms, box of 64 assorted, 16 each size	40.00
HCF-*	Core Forms, box of 64, all one size	40.00

\*Specify size: 1 = small; 2 = medium; 3 = large; 4 = x-large.

- Transparent core forms
- Tab on the top for easy pick up with cotton pliers
- Reference ring for accurate trimming.
- Tapered sides for precise sizing and fast removal
- Clear polyethylene does not stick to core material



EMBRACE™ Esthetic Opaquers

20-Second Light Cure

Embrace Esthetic Opaquers provide a palette of five opaquing shades for esthetic dentistry. These shades can be mixed together to produce a wide range of color variations. A thin film masks out metals and discolored tooth surfaces and light cures in 20 seconds. The material spreads quickly and easily with a brush and cures with all lights.

Embrace Opaquers enjoy all the advantages of Embrace resin technology and behave favorably in the moist oral environment.

Available in Five Popular Esthetic Shades: Bleach White, Off-White, Light Yellow, Pink, Dark Yellow.

EMO*	Refill: 2.1 gm syringe *Specify shade: 1 = Bleach White, 2 = Off-White, 3 = Lt. Yellow, 4 = Pink, 5 = Dk Yellow	25.00
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Opaquer

Light Cure

Masks out metal and discolored tooth structure. Bonds to dental adhesives, bonding agents, composite resins and resin cements. Available in tooth shade and near white shade.

OP1	3 mL syringe, near white shade	34.50
OP2	3 mL syringe, tooth shade	34.50



EMBRACE™ WetBond™ Class V Cervical Restorative Resin

Light Cure • Fluoride Releasing Radiopaque

Embrace Class V restorative is moisture tolerant, which is particularly advantageous for restoring abfraction lesions and cervical areas, where moisture control is most difficult.

- Bonds in a slightly moist field
- Treats and desensitizes abfractions and exposed roots
- Excellent marginal adaptation, adhesion and retention
- 4 shades: A2, A3.5, B2, D2

Physical Properties

- Compressive Strength: 38,100 (1700) p.s.i.; 260 (10) MPa
- Diametral Tensile Strength: 8,650 (670) p.s.i.; 60 (5) MPa
- Percent Filler by Weight: 65%
- Percent Solubility: 0.1%
- Film Thickness: 18 microns

EMV*	Refill: 1.2 mL syringe Class V + accessories *Specify shade: A2, A3.5, B2, D2	21.50
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Flows-Rite™ Multi-Purpose Flowable Composite & Veneer Cement

FK1	A-Shade Assortment: 4 x 1.5 gm syringes, one each A1, A2, A3, A3.5 + 20 applicator tips	63.00
FK*	Refill Kit: 4 x 1.5 gm syringes all one shade + 20 applicator tips	63.00

\*Specify shade: A1, A2, A3, A3.5, S (ShadeFusion)

Light Cure • Fluoride Releasing Radiopaque

Flows-Rite is a micro-hybrid restorative resin formulated with the flow characteristics preferred by dentists. In addition to the most popular shades, it has a unique chameleon shade, ShadeFusion™, that blends and reflects adjacent hues to create a natural esthetic. ShadeFusion is ideal for blending multiple shade restorations, incisal repairs, bleached teeth and veneer cementation.

Ideally suited for the following indications:

- Esthetic Restorative
- Veneer Cement
- Fissure Sealant
- Base/Liner
- Cervical Repairs
- Preventive Resin Restorations (PRR)

With the features you prefer:

- Excellent esthetics and polishability
- Preferred viscosity and handling characteristics
- 68% filled
- Nominal particle size: 0.7 microns
- Available shades: A1, A2, A3, A3.5, B2, C2, ShadeFusion™



Repair and Restore with Flows-Rite



1 Flows-Rite used to repair restoration.



2 Flows-Rite used to restore Class V.

Flows-Rite as a Base/Liner



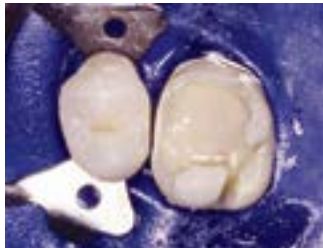
1 The cavity is prepared to receive a restoration.



2 Etch-Rite™ is applied for 15 seconds.



3 DenTASTIC™ UNO™ light cure adhesive is applied to the slightly moist tooth.



4 Flows-Rite™ is placed as a base/liner and light cured.



Visit our websites at [www.pulpdent.com](http://www.pulpdent.com) and [www.activabioactive.com](http://www.activabioactive.com) for instructions for use, MSDS, and additional information and educational materials on Pulpdent products.

Multi-functional Kit Contains

Embrace First-Coat™

Unique, one-step primer bonds chemically and mechanically to prepared ceramic and metal. Contains no solvents.

Embrace Seal-n-Shine™

Polishes, penetrates and seals leaving a glaze-like finish on restored surfaces.

Embrace Esthetic Opaquer

Bonds chemically and mechanically to metal, ceramic and tooth surfaces. 20-second light cure.

Kool-Dam™

Heatless liquid dam protects soft tissue, teeth, and restorative surfaces. Remains flexible after curing.

Porcelain Etch Gel

Buffered 9.6% hydrofluoric acid gel, etches porcelain in one minute.

EMBRACE™ Restoration & PFM Repair Kit

Primes • Protects • Opaques  
Seals • Finishes • Polishes

First-Coat™ eliminates metal and ceramic primers, silane and bonding agents.

- Compatible with all restorative composites.
- No solvents, no modifiers, no mixing, no mess.
- Cures with all curing lights.

EMPFM	Kit: 1.2 mL syringe each First-Coat, Seal-n-Shine™, Opaquer, Porcelain Etch Gel, Kool-Dam + accessories	128.50
EMFC	1.2 mL syringe Embrace First-Coat + 10 flocked tips	46.25
EMO2	1.2 mL syringe Embrace Opaquer, off-white shade	25.00



5-in-1 Kit Solves Big Problems ... Fast!



1 Pretreatment photo of porcelain fractured off upper right cuspid on 7-unit bridge.



2 Place Kool-Dam™ (blue) to protect gingiva and adjacent porcelain. Micro-abrade metal with a micro-etcher, diamond or carbide.



3 Apply Pulpdent Porcelain Etch Gel (yellow) to porcelain for one minute.



4 Apply Embrace™ First-Coat™ to etched porcelain and abraded metal surface, thin lightly with air, and light cure.



5 Apply Embrace Opaquer to the metal surface and light cure.



6 Place your preferred composite, finish, polish, apply Embrace Seal-n-Shine™ (shown here) and light cure.

Photos courtesy of Dr. Robert A. Lowe

Dentin Desensitizer

DES	12 mL bottle	51.25	Contains 5% glutaraldehyde in water with fluoride added to enhance stability. Apply to all dentin surfaces. Although not a primer, it can be used in conjunction with adhesives and composites as well as traditional cements. Does not interfere with bonding or bond strength.
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Syringe Stand

STAND	Syringe Stand: 8" x 4 1/4" x 4 1/2"	42.00	This clear lucite syringe organizer holds up to 30 dental syringes. Accommodates various size syringes from small 1.2 mL to composite syringes. Attractive, space saving design provides easy access and convenient storage.
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Dentin Conditioning Gel

DEN	Kit: 4 x 1.2 mL syringes gel + 8 applicator tips	39.00	<p>22% Polyacrylic Acid</p> <p>For removing the smear layer from dentin prior to bonding and cementation.</p> <p>This high molecular weight, polyacrylic acid is applied to dentin for only 20 seconds prior to placement of glass ionomer cements or dentin bonding materials.</p>
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Dry-Rite™ Drying Agent

DRY	Kit: 4 x 1.2 mL syringe + 8 applicator tips	16.50	Promotes chemical drying of etched porcelain surfaces prior to applying silane. Silane requires a completely dry surface to be a successful bond enhancer.
DRY-1	1 oz. bottle (25 mL)	8.25	



Save That Tooth

by Dr. Harold Berk  
is a chairside guide documenting six decades of clinical experience and an underlying philosophy for the ethical practice of dentistry.

Two cases from the book appear on the following pages. Special edition copies of *Save That Tooth* are available through Pulpdent Customer Service. Additional cases can be found in the Education section of the Pulpdent website at [www.pulpdent.com](http://www.pulpdent.com).

*"Every dentist, student, or dental team member can learn something from this book...."*

*In addition to providing good treatment options for unusual cases, the book is just plain fun to peruse."*

PPAD, April 2006;18(3):176

Save That Tooth

by Harold Berk, D.D.S.

It has always been my mission to save teeth and to help my patients live in comfort and smile with confidence. I always consider what my patients' needs will be long into the future, and I treat accordingly. Since I have followed many patients for a lifetime, this long term planning comes in handy.

My goal is to maintain the vital dentition for as long as possible, and after that to maintain the integrity of the nonvital tooth. Whenever possible, I start with the least invasive treatment plan, and if it should fail, there is always the option to take the next step.

I have learned that nature has tremendous healing powers, and one of my responsibilities is to create an environment that is favorable for the natural healing process.

I share this work with you in the hope that it will enhance your practice of dentistry and the welfare of your patients.

Keep Smilin',

Harold Berk







# Periapical Healing with TempCanal™

Calcium hydroxide is routinely used as the preferred intracanal dressing for disinfecting canals between office visits and for the treatment of complicated endodontic cases. Periapical lesions are a common occurrence, and abscessed teeth can cause considerable pain. While there is a tendency to opt for extracting these teeth, periapical lesions and abscesses can be successfully treated. Calcium hydroxide is the antidote, and the technique is quite simple. Abscesses should be opened and allowed to drain, and canals should always be thoroughly debrided and cleansed before commencing treatment with calcium hydroxide. In addition, there are times when it may be advisable to place the patient on antibiotics and pain medication.

## Case Study Jeanette

*One of our postdoctoral students at Tufts was thrilled with her success the first time she treated a complicated endodontic case with TempCanal.*

*Although Jeanette had originally been seen in the Pediatric Clinic at Tufts in 1995, due to circumstances beyond her control, the case had not been completed at that time. This is another great success story, because when she returned two years later, we were able to save her tooth.*

*According to the patient's record, in June 1995, ten-year-old Jeanette came to the clinic with a toothache. Radiographic examination of her mandibular right first molar (#30) showed a large periapical lesion with decay into the pulp chamber. Clinical examination revealed a fistulous tract on the buccal aspect and sensitivity to percussion. Upon removal of the caries, there was an odorous, purulent exudate. The canals were opened, the tooth was drained, and the patient was placed on an antibiotic and released, pending approval from social services for root canal therapy.*

*Jeanette returned after one week, and it was noted that the swelling and sensitivity to percussion were gone. Approval for root canal therapy still had not been received, so a temporary filling was placed again. Two weeks later she returned with swelling on the lingual aspect of the tooth. The tooth was opened and drained, and Jeanette returned the next day for a new temporary restoration.*

*This case has an interesting history, because while the clinic was waiting for approval for root canal therapy, Jeanette's family moved to Alaska where she spent the next two years.*

***It is seemingly hopeless cases like this that reaffirm my belief that we should always try to "save that tooth."***

In July 1997, Jeanette returned to Boston and came to the clinic complaining about the same tooth. This is when our postdoctoral student first saw this patient, and from this point on she followed the case to completion.

A radiograph was taken that revealed a large periapical lesion involving the furcation (JW1). The tooth was opened, all the decay was removed, the serous exudate was drained, and a temporary restoration was placed.

Two weeks later, approval was received from social services for root canal therapy. The canals were filed and reamed and a diagnostic radiograph was taken (JW2). TempCanal was placed as an antibacterial dressing and to promote healing of the periapical lesion. The TempCanal dressing was replaced one week later.

Jeanette did not return again for two months, and radiographic examination revealed periapical healing was occurring with bone fill into the furcation (JW3). The TempCanal was replaced, and Jeanette was scheduled to have the root canals obturated at the next visit.

We did not see Jeanette again for six months. When she returned in March 1998, we could see complete healing of the periapical lesion. At this visit, the canals were obturated with Pulpdent Root Canal Sealer using the Pressure Syringe technique (JW4).

***In a complicated case such as this, some practitioners might have considered extracting the tooth. However, even though this tooth was neglected for two years and there was a periapical lesion involving the furcation, the tooth was treated with the intention of saving it.***

***Following standard procedures of debriding and shaping the canals, and using TempCanal as an intermediate root canal dressing, it is possible to create an environment in which healing can occur, as it did in this case.***



**Figure JW1**  
Radiograph shows large periapical lesion involving the furcation. (July 1997)



**Figure JW2**  
Diagnostic radiograph. (August 1997)



**Figure JW3**  
Radiograph shows TempCanal in place and periapical healing. (October 1997)



**Figure JB4**  
Radiograph shows healing with bone fill into the furcation, and the canals obturated with Pulpdent Root Canal Sealer using the Pressure Syringe technique. (April 1998)



# PULPDENT® Endodontic Pressure Syringe® Technique

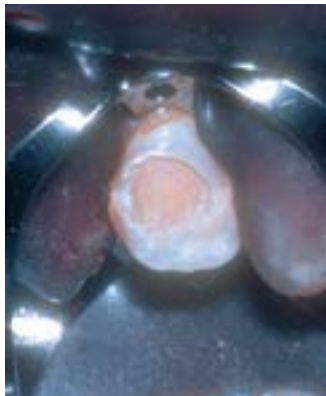
The Pulpdent Pressure Syringe technique is the simplest and most accurate method of filling the apical portion of the root canal and completely obturating the root canal space. It eliminates voids and incomplete fills at the apex and along the length of a solid core and the canal walls. Using the Pressure Syringe, the practitioner fills the apex first and then back fills the remaining root canal space.

## Case Study Charlie

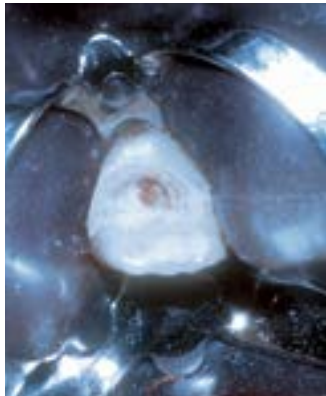
It is unusual to encounter a patient with a large carious lesion on the labial surface of a maxillary central incisor, so we were surprised when Charlie came to the clinic suffering from this extreme condition (CC1), although we were not surprised he had a tooth ache. Decay does not necessarily cause discomfort until there is pulpal involvement, and this is one reason caries can progress so far before the patient sees a dentist.

Charlie's case presented an ideal situation for demonstrating the Pressure Syringe technique to our postdoctoral students, so we documented it with photos and radiographs for teaching purposes. After removing the caries with a spoon excavator, we could see that Charlie had a pulpal exposure that would require root canal therapy (CC2). Considering the history of neglect, and not knowing if Charlie would keep future appointments, the decision was made to complete the root canal treatment in one visit.

Often, the location of a carious lesion determines the approach to the root canal. In an anterior tooth, we usually take a palatal approach, but in order to preserve as much of Charlie's tooth structure as possible, we chose to gain access to the root canal from the labial aspect.



**Figure CC1**  
Shows large carious lesion.



**Figure CC2**  
Shows pulpal exposure upon removal of carious dentin.

Figure CC3 shows the file in place, and Figure CC4 shows the diagnostic radiograph.

Figure CC5 shows the Pressure Syringe needle in the canal 2 mm from the apex.

Figure CC6 shows the Pressure Syringe in place, ready to fill the canal. One of the great advantages of the Pressure Syringe is that it enables the clinician to fill the apex first.

Figure CC7 shows the fill at the apex following one-quarter turn of the screw plunger.



**Figure CC3**  
Shows diagnostic file in place.



**Figure CC4**  
Diagnostic radiograph.



**Figure CC5**  
Shows Pressure Syringe needle 2 mm from apex.



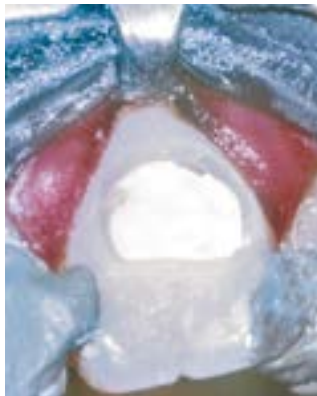
**Figure CC6**  
The Pressure Syringe is in place.



**Figure CC7**  
One-quarter turn of the screw plunger fills the apex.



**Figure CC8**  
Shows total obturation of the root canal.



**Figure CC9**  
Shows cement base in place.



**Figure CC10**  
Final restoration.



A detailed step-by-step clinical guide for the use of the Pulpdent Pressure Syringe is available on line at [www.pulpdent.com](http://www.pulpdent.com)>Education/Article>Save That Tooth> Contents>Part 4 or go to Endodontics>Pulpdent Pressure Syringe.



Calcium Hydroxide for Root Canal Therapy

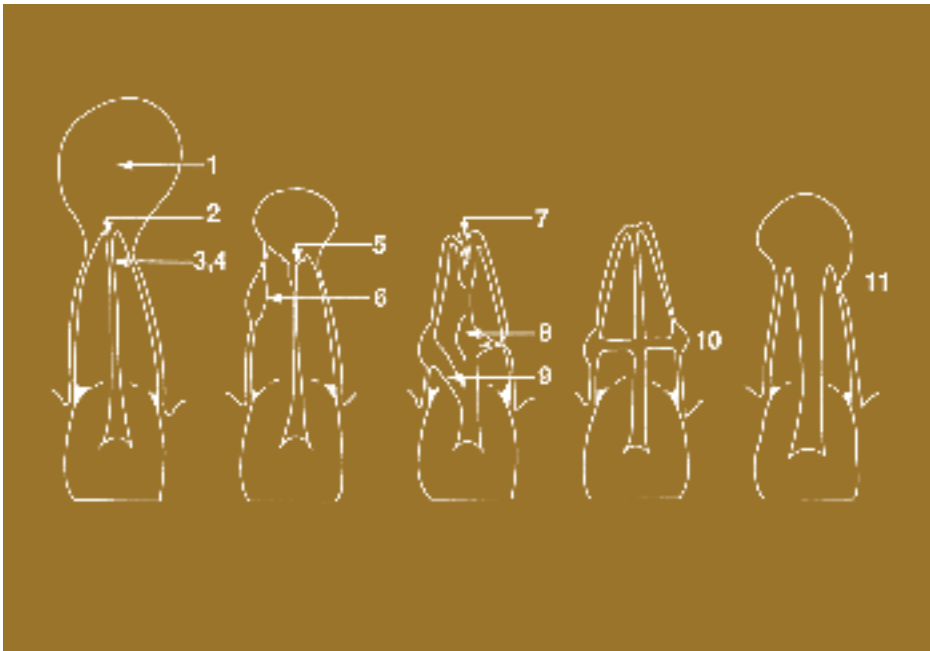
For routine use as an antibacterial intracanal dressing between office visits

- pH > 12
- Bactericidal and bacteriostatic
- Disinfects canals
- Prevents flare-ups
- Dissolves remnants of pulp tissue
- Replaces hazardous formocresol
- No mixing or condensing
- Easily removed with file and irrigation
- Radiopaque

For extended calcium hydroxide therapy in complicated cases and as a non-surgical solution for abscessed teeth and failed root canals.

- Promotes healing of abscesses and periapical lesions
- Quiets hot teeth
- Treats traumatic injuries, avulsed and luxated teeth
- Discourages traumatic root resorption
- Stimulates hard tissue formation.

Clinical Uses of Pulpdent Calcium Hydroxide Pastes for Root Canal Therapy  
TempCanal™, Multi-Cal™, Pulpdent® Paste & Forendo™ Paste



- 1 Exudation control: puss, hemorrhage and weeping canals
- 2 Abscesses and periapical lesions
- 3 Antibacterial intracanal dressing
- 4 Temporary root filling
- 5 Apical inflammatory resorption
- 6 Inflammatory resorption following trauma
- 7 Apical internal resorption
- 8 Internal-external root resorption
- 9 Root perforations
- 10 Transverse root fractures
- 11 Apexification in incompletely developed pulpless teeth.

Heithersay GS. Calcium hydroxide in the treatment of pulpless teeth with associated pathology. J Brit Endo Society 1975;8(2):74-93.

At the University of Adelaide in Australia, Dr. Geoffrey S. Heithersay was conducting original research on the use of Pulpdent Paste in root canal therapy. In 1975, Heithersay published his landmark paper, "Calcium Hydroxide in the Treatment of Pulpless Teeth with Associated Pathology," in the Journal of the British Endodontic Society.

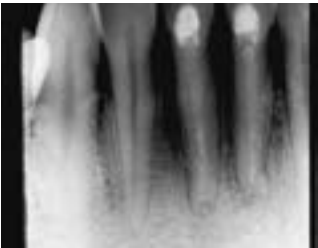
Dr. Heithersay's research has profoundly changed the way we treat endodontically involved teeth. Numerous other researchers have corroborated this research, and these treatment modalities are taught by leading professionals and at dental schools worldwide. An extensive bibliography can be found in *Save That Tooth* by Dr. Harold Berk.

Case 1 - Treatment of Abscessed Teeth with TempCanal

Four months after an auto accident in which her chin hit the steering wheel, the patient presented with painful loose lower central incisors. The case was treated immediately by removing the pulps and placing TempCanal.



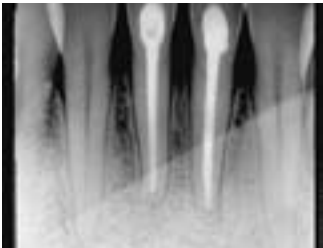
1 Radiograph shows abscessed teeth with considerable bone loss.



2 Six months after root canal therapy and treatment with TempCanal, radiograph shows bone filling in and healing.



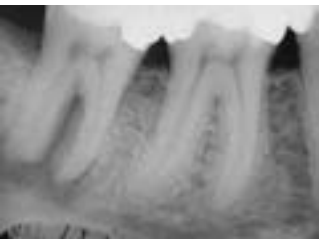
3 One year follow up shows healing and obturation with Pulpdent Root Canal Sealer.



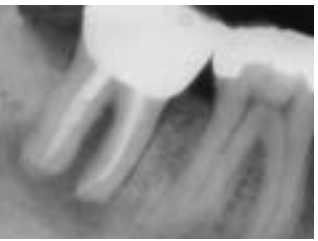
4 Radiograph taken nine years after final filling shows long term success.

Case 2 - Reversing Root Canal Failures

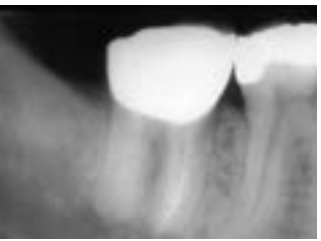
Six years after root canal therapy, the patient presented with a large periapical lesion. This tooth can be saved. Extraction is not necessary.



1 Pre-operative radiograph shows large periapical lesion with furcation involvement. (1979)



2 Six years after root canal treatment, a radiograph shows that the periapical lesion is even worse. (1985)



3 The crown, post and gutta percha were removed, and the canals were filled with TempCanal. Radiograph taken 9 months after treatment with TempCanal shows healing. (1986)



4 Twelve year follow-up radiograph shows normal, healthy tooth and long term success. (1998)

Case 3 - Hard Tissue Formation with TempCanal

The patient lost his maxillary left central incisor due to traumatic injury. There is external root resorption on the remaining central incisor.



1 Radiograph shows external root resorption on the mesial aspect of the maxillary right central incisor. The root canal is filled with TempCanal to promote healing.



2 Radiograph taken three months later shows remineralization of the mesial aspect of the right central incisor.

Complicated cases are routinely treated with Pulpdent calcium hydroxide pastes. To review case histories and techniques, refer to *Save That Tooth* by Dr. Harold Berk. Additional cases from the book appear in the education section of the Pulpdent website at [www.pulpdent.com](http://www.pulpdent.com).

Pulpdent Calcium Hydroxide Pastes

Multi-Cal™

MULTI	Multi-Cal Kit, 4 x 1.2 mL syringes + 8 applicator tips (22 gauge x ½")	48.25
MULTI-3	Multi-Cal 3 mL syringe	30.25



**40% (±2%) calcium hydroxide in a creamy aqueous ethylcellulose paste**

**Indicated for root canal therapy and vital pulp therapy**

Multi-Cal is a non-setting, pre-mixed paste easily removed from root canals with file and irrigation. Radiopaque.

Packaged in 1.2 mL or 3 mL push syringes for direct dispensing through 22-gauge x ½" applicator tips.

TempCanal™

PTCK	TempCanal Kit: 3 mL screw syringe + 12 needles (22 & 25 gauge x 1 ¼")	49.50
PTC	TempCanal 3 mL screw syringe	34.90



**40% (±2%) calcium hydroxide in a creamy aqueous methylcellulose paste**

**Indicated for root canal therapy**

TempCanal is a non-setting, pre-mixed paste easily removed from root canals with file and irrigation. Radiopaque.

Packaged in 3 mL screw syringes for direct dispensing through 22- and 25-gauge x 1¼" blunt needles.

PULPDENT® Paste

PSYK	Pulpdent Paste Kit: 3 mL syringe + 24 needles (18 gauge x 1")	47.00
PSY	Pulpdent Paste 3 mL syringe	31.35



**40% (±2%) calcium hydroxide in a viscous aqueous methylcellulose paste**

**Indicated for root canal therapy and vital pulp therapy**

Pulpdent Paste was the first pre-mixed calcium hydroxide pulpal dressing. The original research in the use of calcium hydroxide paste for pulp capping, vital pulpotomy, pulpal curettage and root canal therapy was conducted using Pulpdent Paste. It is a non-setting paste easily removed from root canals with file and irrigation. Radiopaque.

Packaged in 3 mL push syringes for direct dispensing through 18-gauge x 1" blunt needles.

Forendo Paste™

FORE	Forendo Paste, 2.2 gm syringe + 20 applicator tips	41.00
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**22% calcium hydroxide with iodoform in a silicone oil-based paste**

**Indicated for root canal therapy.**

Iodoform combined with calcium hydroxide provides a strong antibacterial dressing for root canal therapy. Packaged in a 2.2 gram push syringe with applicator tips for direct dispensing into canals. A non-setting, pre-mixed paste easily removed from root canals with file and irrigation. Radiopaque.

World Renowned

Since developing the first pre-mixed calcium hydroxide-aqueous methylcellulose pulpal dressing in 1947, the Pulpdent name has been synonymous with calcium hydroxide.

Multi-Cal, TempCanal, Pulpdent Paste are water based pastes that dry with air but do not set hard. Forendo Paste is silicone oil based and neither dries nor sets hard. All four pastes are easily removed from the canal with file and irrigation.

- Non-setting, pre-mixed pastes
- Bactericidal and bacteriostatic
- Radiopaque
- pH > 12

Calcium Hydroxide for Vital Pulp Therapy

Pulpdent Paste and Multi-Cal are placed in contact with exposed or amputated pulp tissue to stimulate dentin bridge formation and maintain the vitality of the pulp.

**Indications for Use of PULPDENT® Paste & Multi-Cal™ for Vital Pulp Therapy:**

- Direct pulp capping
- Pulpal curettage
- Vital pulpotomy
- Antibacterial pulpal dressing
- Pulpal healing
- Dentin bridge formation

Pulpdent Paste is the first pre-mixed calcium hydroxide pulpal dressing and was used for the original research in pulp therapy. The early pulp studies yielded very high success rates when Pulpdent Paste was used for vital calcium hydroxide pulpotomy, which is the surgical removal of the coronal pulp with the intention of stimulating dentin bridge formation and maintaining the vitality of the radicular pulp.

Later pulp studies showed great success for direct pulp capping in both large and small pulpal exposures. Pulpdent Paste stimulates consistent dentin bridge formation, and the new dentin bridge is visible clinically after approximately 1-3 months.

These results have never been surpassed, and Pulpdent Paste is the "medicament of choice" in independent clinical studies worldwide.



To review the early pulp studies with Pulpdent Paste, refer to *Save That Tooth* by Dr. Harold Berk, or visit [www.pulpdent.com](http://www.pulpdent.com) >Education/Articles >Save That Tooth: Contents >Part One.

PULPDENT® Cavity Liner

**Ultra-Thin Calcium Hydroxide Liner and Pulp Protector**

**Bactericidal • Bacteriostatic • pH > 12**

Pulpdent Cavity Liner is an aqueous calcium hydroxide - methylcellulose preparation. It fills in the dentinal tubules with a calcium hydroxide film that protects against thermal and chemical shock and neutralizes acids and irritants in dental filling materials. It occupies virtually no space and does not interfere with the seating of crowns or inlays.

Pulpdent Cavity Liner stimulates the formation of sclerotic and secondary dentin and increases the density of dentin as much as 25% within 15 days.\*

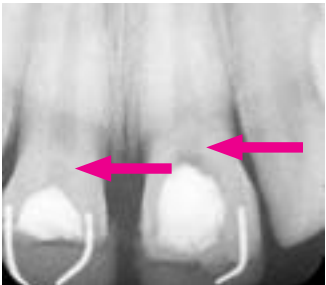
\*Finn SB. Clinical Pedodontics. 4th ed, Philadelphia: WB Saunders, 1973; 208-211, 235-238.

Calcium Hydroxide USP Powder

Dentin Bridge Formation with Pulpdent Paste



Histological section stained with H & E showing new dentin bridge formation two months following pulpal curettage and treatment with Pulpdent Paste.



Radiograph shows two new dense dentin bridges following vital calcium hydroxide pulpotomy and placement of Pulpdent Paste as the pulpal dressing.

PCL	Pulpdent Cavity Liner, 15 mL dispenser bottle	24.50
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CH4	Calcium Hydroxide USP Powder, 4 oz.	16.00
CH16	Calcium Hydroxide USP Powder, 16 oz.	38.50



PULPDENT® Root Canal Sealer

RK	Root Canal Sealer Kit: 15 cc powder, 7.5 mL liquid, mixing pad, scoop	49.50	Meets ANSI/ADA Specification 57 for Endodontic Filling Material. Powder contains zinc oxide, zinc stearate, calcium phosphate and barium sulfate. Liquid contains eugenol and Canada balsam. <ul style="list-style-type: none"><li>• Tissue compatible</li><li>• Bacteriostatic</li><li>• Radiopaque</li></ul>
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For All Permanent Filling Techniques

- Pressure Syringe Technique
- In conjunction with solid core
- Paste Filler/Lentulo
- Lateral condensation

Indicated for primary and permanent teeth.

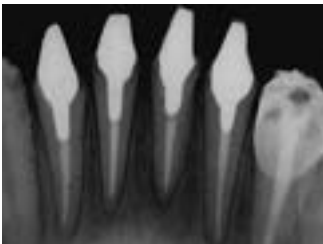
- A thick mix eliminates free eugenol and ensures patient comfort
- Can be drilled for a post
- Can be removed with mechanical and hand instrumentation, if necessary

Important features

- Does not shrink upon setting
- Resorbs with roots of deciduous teeth
- Flows through 30-gauge needles
- Tissue compatible
- Slight overfills often resorb over time



Permanent Filling Material



Pulpdent Root Canal Sealer can be used with or without gutta percha. Radiograph shows five permanent lower anterior teeth completely filled with Pulpdent Root Canal Sealer only.

Resorbs with the Roots of Deciduous Teeth



Shows primary molar filled with Pulpdent Root Canal Sealer using Pressure Syringe technique.



Shows the bicuspid erupting and Pulpdent Root Canal Sealer resorbing with the roots of the primary molar.

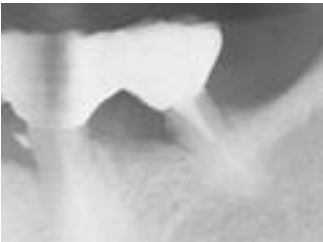
Tissue Compatible - Slight Overfills often Resorb as Healing Occurs



Radiograph shows obturation of the lower left second bicuspid and the distal root of the hemisected lower left first molar with Pulpdent Root Canal Sealer. Note extrusions beyond the apex.



Radiograph taken 5 months later shows resorption of extrusions and healing of the periapical lesion.



Radiograph taken 4 1/2 years later shows periapical healing, bone fill and a bridge in place.

PULPDENT® Pressure Syringe™

Fill the Apex first...  
45 years of clinical success!

The original screw syringe still offers the most precise method for obturating root canals with Pulpdent Root Canal Sealer. Fill the apex first to create a positive seal and then accurately backfill the remaining canal space using 30, 25, 22 or 18 gauge blunt needles. Stainless steel construction. Sterilize by any method.



PSK	Pressure Syringe Combo Kit: Pressure Syringe, 30 assorted needles, Pulpdent Root Canal Sealer Kit, Wonder Orange™ Cleaning Solution	165.00
PS-0	Pressure Syringe only	100.00

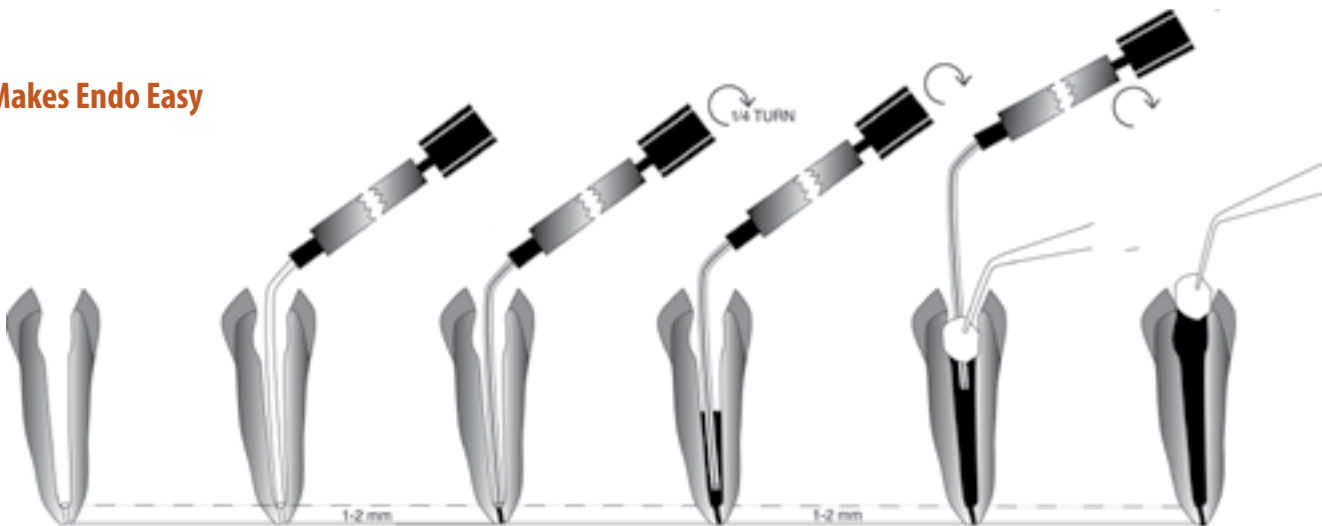


Proper placement of the Pressure Syringe needle 1-2 mm from apex.



One-quarter turn of the screw post deposits sealer to the apex first. Radiograph shows positive apical seal. The remainder of the canal is back filled to the orifice (not shown).

Makes Endo Easy



- Figure 1**  
Open the root canal to a size 35-40 file to a distance 1-2 mm from apex. Prepare the apical 1-2 mm with parallel walls. For completely formed teeth, it is best not to open the apex beyond a size 20-30 file.
- Figure 2**  
The Pressure Syringe needle should fit snugly 1-2mm from the apex.
- Figure 3**  
Turn the screw plunger 1/4 turn clockwise. Wait 5 seconds. This fills the 1-2 mm at the apex.
- Figure 4**  
Back off needle to break contact with sidewalls. Continue to turn the screw plunger until sealer appears at the orifice.
- Figure 5**  
Place cotton pellet at the orifice. Withdraw the needle while turning the screw plunger.
- Figure 6**  
Condense the sealer.

# EDTA

Decalcifies canal walls • Eases Instrumentation  
Buffered to a neutral pH

## EDTA Liquid 17% Solution

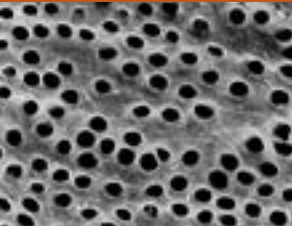
EDTA-30	30 mL bottle	10.60
EDTA-60	60 mL bottle	17.95
EDTA-120	120 mL bottle	23.20
EDTA480	480 mL bottle	44.20

**For the instrumentation of root canals and smear layer removal.**

- An effective chelating agent
- Decalcifies canal walls.
- Eases instrumentation of root canals
- Buffered to a neutral pH



## EDTA Effectively Decalcifies Canal Walls



SEM shows smear layer removal and opened dentinal tubules following treatment with File-Rite 17% EDTA semi-gel.

## EDTA Semi-Gel File-Rite™

FILE	4 x 5 gm syringes + 50 x 30-gauge needles	44.00
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**For direct dispensing into canals using 30-gauge needles**

- 17% EDTA gel with lubricant
- Decalcifies canal walls
- Facilitates instrumentation
- Minimizes binding and breaking of files
- Rinses out easily with irrigation



## EDTA Viscous Gel Prep-Rite™ RC

PRC	4 x 5 gm syringes	33.75
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**For picking up on files using the traditional technique. Contains peroxide for effervescing action.**

- 15% EDTA gel with lubricant
- Decalcifies canal walls
- Facilitates instrumentation
- Minimizes binding and breaking of files
- Rinses out easily with irrigation

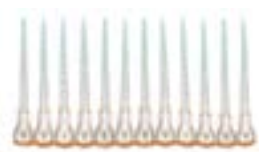


## Spee-Dee™ Plastic Pins

PIN	Spee-Dee Plastic Pins, box of 60	15.50
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**For Direct Cast Core Technique**

- Virtually unbreakable, tapered translucent plastic
- Burns out completely without leaving any residue
- Scored to provide excellent retention of resin and waxes



## Dam Frame

RDF	Rubber Dam Frame, Radiolucent	12.90
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**For Use with Rubber Dam**

Anatomically contoured for maximum patient comfort and safety. Made of radiolucent plastic for clear imaging. Strong, durable and resistant to cracking or breaking. Sterilize by any method.



## Wonder Orange™ All Natural Cleaning Solution

For removing zinc oxide dental cements, impression materials and waxes from vinyl furniture, face and hands. Also used for cleaning the Pulpdent Pressure Syringe. No artificial ingredients.

WO-8	Wonder Orange, 8 oz.	11.60
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## Root Canal Pluggers, Luks

Single end, stainless steel pluggers with tapered shafts.

PL-L*	Root Canal Pluggers, Luks, *specify size: 1, 2, 3 or 4	14.95
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## Root Canal Pluggers

Double end. Stainless steel.

PLDE-*	Root Canal Pluggers, double end, *specify size: 1/3, 3/5, 5/7 or 9/11	21.65
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## Root Canal Spreader Dryer

Metal heat retention bulb for longer working time. Stainless steel.

RS-D*	Root Canal Spreader Dryer *specify size: 2, 4 or 6	16.00
RS-DA	Set of 3, one of each size	45.00

## Endo Locking Pliers

Stainless steel. Grooved and serrated tips hold gutta percha, or paper points firmly. Lock on side of handle disengages easily.

PL-E	Endo Locking Pliers, 6" (15 cm)	12.35
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## Steiglitz Forceps

For firmly holding gutta percha points and for removal of pins, posts, root tips and broken endodontic drills. Features strong beaks and ratchet lock mechanism. Stainless steel.

FOR-ST	Steiglitz Forceps	45.00
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Band-Rite™ Resin-Ionomer Orthodontic Band Cement

OCBR Kit: 2 x 12 gm syringes base, 2 x 12 gm syringes catalyst, mixing pad and spatulas 102.00



- Fluoride Releasing • Dual Cure**
- Band-Rite is a strong, dual cure, fluoride releasing band cement that provides long working time, maximum visibility for seating bands in the mouth, and easy mixing, handling and clean up.
- No Etching, Superior Handling**
- No need to etch bands.
  - Easier to mix and load bands, material doesn't flow out. (Figure 1)
  - Long working time.
  - Accurate dispensing, no waste with push syringe.
  - Isolate with fingers and dry. No cotton rolls needed. (Figure 2)
- Improves Visibility, Ensures Proper Fit**
- Band-Rite lets you see how the band fits. When seating bands, excess Band-Rite is easily wiped away with your finger or a cotton roll so that the occlusal edge of the band is always visible. (Figure 3)
- Easy Clean Up**
- After setting, excess material flicks off cleanly and easily using a scaler. It tends to come off in a sheet like a thin veneer. (Figure 4)
- Dual Cure - Choice of Curing Methods**
- Light cure and self-cure.
- Superior Performance**
- High bond strength and reduced wash out.
  - Less bond failure and less decalcification.

Band-Rite Procedure



1 Easier to load bands. No etching. No run out. Long working time.



2 Isolate with fingers and dry. No cotton rolls needed.



3 The occlusal edge of the band is always visible.



4 After curing, excess flicks off easily using a scaler.

Ortho Choice™  
It's your choice...  
a better choice.

Ortho-Coat™

Fluoride Releasing • Light Cure OC 2 x 5 mL syringes + 20 applicator tips 56.00

*Reduces or eliminates decalcification, staining and discoloration under orthodontic brackets*

- Protects soft tissue from sharp edges of brackets, bands and wires.
- Reinforced, moisture tolerant resin
  - Bonds to the moist tooth
  - Tooth integrating and margin-free
  - Prevents microleakage
  - Cures with all lights
  - Bonds to self-cure and light cure orthodontic adhesives
  - Color stable



*If You've Seen This After Removing Brackets*



*You Need Ortho-Coat*

Carious lesions can form around and under orthodontic brackets. Brackets trap food and plaque. Patients can't clean under the brackets. The results can be disastrous.

Glass Ionomer Band Cement

OCGI Kit: 30 gm powder, 15 mL liquid, mixing pad and scoop 59.50



- Fluoride Releasing • Self-Cure**
- Self-cure glass ionomer cement provides strong bond to metal bands and enamel. Provides sufficient working time for multiple placements. Fast hardening. Radiopaque. Available in standard and economy sizes.

How Ortho-Coat Works



1 Shows orthodontic bracket bonded to a tooth and coated with Ortho-Coat after immersion in saline solution for two months.



2 Shows the tooth stained with 0.25% methylene blue after two-month immersion in saline solution.



3 Shows stained tooth after removal of coated bracket. Note lack of dye penetration under bracket. The white area shows the outline of the coating, not the bracket, which has a smaller footprint.



4 Shows underside of the stained bracket pad. Despite intense staining of the tooth and Ortho-Coat with methylene blue, there is no dye penetration or leakage beneath the bracket.



PULPDENT® OBA Orthodontic Bracket Adhesive

OCBA	Kit: 2 x 4g syringes Orthodontic Bracket Adhesive, 5ml bottle resin bonding agent, 6ml syringe etch gel, brush handle, 50 brush tips + 8 etching gel applicator tips	70.00
OCBAS	OBA 4 gm syringe	21.10
OCBAR	Resin bonding agent, 5 mL	21.10

Fluoride Releasing • Light Cure

This complete kit for bonding orthodontic brackets provides the advantages of long term fluoride ion release and rapid light cure technique. Works equally well with metal, ceramic and clear sapphire brackets.

Save valuable chair time with this latest advance in Orthodontic Bracket Adhesive technology. Enjoy the advantages of secure bonds, consistent results and no drift brackets with arch wires placed in minutes.

Available packaged in syringes or pre-filled tips. Kit includes OBA paste, resin bonding agent, etching gel, brush handle, brush tips and gel applicator tips.

- Thick, smooth consistency –  
*Eliminates bracket flow*
- Visible light cure –  
*Ready for arch wires in seconds*
- Fluoride ion release –  
*Protects against decalcification*
- Ideal bond strength –  
*Bonds securely, debonds precisely*
- Syringes or pre-filled tips –  
*Choose your preferred delivery system*

Ortho  
Choice™  
It's your choice...  
a better choice.

OBA Procedure



1 After cleaning, apply Etch-Rite™ etching gel or semi-gel etchant to the tooth surfaces to be bracketed..



2 Rinse and dry, and apply a very thin coat of OBA Bonding Resin to the etched tooth surfaces.



3 Apply ½ mm of OBA bracket adhesive paste on the bracket base and place on the tooth with firm pressure.



4 Remove excess bracket adhesive with an explorer or plastic instrument. The high viscosity paste is designed to prevent bracket drift.



5 Light cure for 10 seconds on each side of the bracket.



6 The bracket is now ready for placement of archwires.



PerioCare® Periodontal Dressing

For Post Surgical Tissue Management  
2-Paste system

PC	PerioCare: 90mL tube paste, 90 mL tube gel, mixing pad	51.00
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Does not support the growth of bacteria

PerioCare is a two-paste, highly elastic periodontal dressing that sets resiliently hard and does not chip or fall apart in the mouth. It assists in tissue placement after periodontal surgery and provides durable protection of tissue. After mixing equal amounts of part one and part two, PerioCare is ready to pick up with wet fingers in about 45-60 seconds. It has a working time of 4-5 minutes and sets in 15 minutes.

- Patient pleasing
- Contains no eugenol
- Neutral odor and taste
- Does not support the growth of bacteria

SplintMat and PerfoMat

For Permanent Stabilization of Teeth

SPL-C	SplintMat – Coarse woven nylon mesh grid, roll, 5.5 mm X 1 meter (39")	69.50
SPL-F	SplintMat – Fine woven stainless steel mesh grid, roll, 4 mm X 1 meter (39")	69.50
SPL-P	PerfoMat – Perforated stainless steel strip, roll, 3.5 mm X 1 meter (39")	69.50

SplintMat and PerfoMat are bonded to the teeth in clinical applications where tooth stabilization or placement of temporary restorations is required. Use nylon splint with your preferred light cure composite, and stainless steel splint with self-cure composites. Available in no waste rolls of clear nylon mesh, stainless steel mesh, or perforated stainless steel strip.

- Splints and immobilizes reimplanted and periodontally involved teeth
- Provides support for temporary replacement of missing teeth
- Reinforcement for denture repairs



Eugenol, USP

Highly purified eugenol for a multitude of dental applications. Available in 2, 4 and 16 oz bottles.

E-02	Eugenol, USP, 2 oz (59 mL)	15.00
E-04	Eugenol, USP, 4 oz (118 mL)	27.00
E-16	Eugenol, USP, 16 oz (472 mL)	98.50

Zinc Oxide, USP

Highest quality, finely milled, medical grade zinc oxide. Available in 1 lb container.

Z-0	Zinc Oxide, USP, 1 lb (454 gm)	14.00
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Flecta™ Disposable Mirrors

FLEC Flecta, Box of 200 51.75



A Better Mirror Every Time

The innovative Flecta Disposable Mirrors are high quality, disposable dental mirrors at an unbeatable single-use price.

You have a shiny new mirror for every patient!

- No more scratches
- Elongated mirror with 40% larger viewing surface
- Pull tab easily removes protective film from mirror surface
- Double-sided with back side light reflector
- Light weight comfort handle reduces stress and fatigue
- Offset handle design is a better tongue guard and cheek retractor
- In-office and take-home patient mirror increases patient awareness
- Unbeatable single-use price

Ideal for tray setups

Perfect For:

- General Dentistry
- Air Abrasion (aluminum oxide)
- Air Polishing Powder (sodium bicarbonate)
- Laser Dentistry - Electrosurgery
- Public Health Centers - Mobile Clinics
- Sealant and Fluoride Varnish Programs
- School Based Screenings
- Institutions - Large Groups - Clinics

Manufactured by Pulpdent in Watertown, Massachusetts USA.

Give Flecta to your patient after the office visit to encourage better home hygiene.

The advantages of Flecta Disposable Mirrors are clearly visible.



40% More Viewing Area  
No more scratches and blotches



Expanded posterior view using The Flecta Disposable Mirror.

Snoop™ Caries Detecting Dye

For Conservative Cavity Preps

SNOOP 12 mL bottle 41.00



Snoop™ distinguishes between outer infected and inner affected dentin in 10 seconds.

Snoop identifies infected carious dentin and helps the practitioner preserve vital dentin that should not be removed. The caries detecting dye stains the denatured collagen that is only present in the outer infected dentin. This is an important tool for conservative dentistry.

- Dark blue color provides strong contrast with dentin and the pulp
- Propylene glycol formula accurately identifies infected dentin in 10 seconds

Cariou dentin is made up of two distinct layers.

- The layer of outer infected dentin is soft, discolored, non-vital, nonsensitive, cannot remineralize, should be removed and is stained by Snoop in 10 seconds.
- The layer of inner uninfected (affected) dentin is not infused with bacteria, is capable of remineralizing, should not be removed and is not stained by Snoop in 10 seconds.

SNOOP™

Snoop Procedure



1 Obvious occlusal caries.



2 After removing obvious caries, apply SNOOP for 10 seconds.



3 Rinse and remove only the stained infected dentin.



4 Re-apply SNOOP and rinse. No further staining means no remaining infected dentin.

Photos courtesy of Dr. C. H. Pameijer



Visit our websites at [www.pulpdent.com](http://www.pulpdent.com) and [www.activabioactive.com](http://www.activabioactive.com) for instructions for use, MSDS, and additional information and educational materials on Pulpdent products.

WINK™ Water Soluble Lubricant & Release Agent

WINK 4 x 6 mL syringes 29.50



Case #3



Final impressions release in a blink with WINK.

Impressions come off in a blink with WINK...even polyethers!

In addition to facilitating the removal of impressions, Wink prevents the distortion of impressions caused by torque and stresses during removal from the mouth. This also ensures the proper fit of partial dentures, which typically fit on the model but not in the mouth. This is due to distortion of the impression during removal, which results in an inaccurate model, and ultimately, a poorly fitting partial denture.

Ensures patient comfort and saves valuable time

Prevents Distortion • Ensures Accurate Impressions:

- Greaseless formula goes on smoothly and evenly and washes off quickly with water
- Easily thinned with compressed air
- Replaces petroleum jelly and other greasy, lumpy, hard to remove materials
- Margins are crisp and readable

Quick Release Agent for:

- All impression materials, even polyethers and alginates
- Cement and impression material from face and tissue
- Temporary materials from resin crown build-ups
- Set cement from the outside surfaces of temporary crowns

Lubricant for:

- Outside surface of restorations to facilitate cement removal
- Build-ups, teeth and preps when making temporary restorations
- Rubber dam to facilitate placement without tearing
- Face and lips to prevent drying during long procedures

Miller Forceps

Articulating Paper Forceps

Securely grips the entire length of articulating paper, film or foil and keeps strips straight. Available both straight and curved.

Case #1



Excess temporary cement comes off effortlessly with WINK.

Case #2



For superior temporary restorations place WINK on the crown prep.



Margins are crisp and readable.



ARPH-M	Miller Forceps	13.60
ARPH-MC	Miller Forceps Curved	18.00

Syringe Applicator Tips and Dispensers

The higher the gauge, the smaller the needle diameter. The 30-gauge needle has the smallest diameter.

Pulpdent Code	Description	For Use with	List Price(US\$)
30F50	Orange, 30 ga x 1", straight Tips, pkg. 50	File-Rite	11.40
30F100	Orange, 30 ga x 1", straight Tips, pkg. 100		22.80
25B20	Light Blue, 25 ga x 1/2", Prebent Tips, pkg. 20	Etch-Rite, Etch Royale, Etch-All, Porcelain Etch Gel	5.00
25B50	Light Blue, 25 ga x 1/2", Prebent Tips, pkg. 50		10.85
25B100	Light Blue, 25 ga x 1/2", Prebent Tips, pkg. 100		21.75
23R20	Red, 23 ga x 1/2", Prebent Tips, pkg. 20	Pit & Fissure Sealant when a smaller applicator is preferred	5.00
23R100	Red, 23 ga x 1/2", Prebent Tips, pkg. 100		21.75
22D20	Dark Blue, 22 ga x 1/2", Prebent Tips, pkg. 20	Multi-Cal, Forendo Paste, Dentin Conditioning Gel	5.00
22D100	Dark Blue, 22 ga x 1/2", Prebent Tips, pkg. 100		21.75
22K20	Black, 22 ga x 1/2", Prebent Tips, pkg. 20	Pit & Fissure Sealant when a metal cannula tip is preferred	5.00
22K100	Black, 22 ga x 1/2", Prebent Tips, pkg. 100		21.75
22DR15	Dark Blue, 22 ga x 1/2", Prebent Red Dropper Tips, pkg. 20	Dry-Rite, Silane, Polyamide Dentin Sealant	7.55
22DR75	Dark Blue, 22 ga x 1/2", Prebent Red Dropper Tips, pkg. 75		33.15
22KK15	Black, 22 ga x 1/2", Prebent Black Dropper Tips, pkg. 15	Pit & Fissure Sealant when a plastic dropper tip is preferred	7.55
22KK75	Black, 22 ga x 1/2", Prebent Black Dropper Tips, pkg. 75		33.15
20L20	Pink, 20 ga x 1/2", Prebent Tips, pkg. 20	Kool-Dam, Lime Lite Flows-Rite	5.00
20L100	Pink, 20 ga x 1/2", Prebent Tips, pkg. 100		21.75
19K20	Black, 19 ga x 1/2", Prebent Tips, pkg. 20	Kool-Dam, Embrace WetBond Class V	5.00
19K100	Black, 19 ga x 1/2", Prebent Tips, pkg. 100		21.75
18G20	Green, 18 ga x 1/2", Prebent Tips, pkg. 20	Kool-Dam when a larger applicator tip is preferred	5.00
18G100	Green, 18 ga x 1/2", Prebent Tips, pkg. 100		21.75
P2520	Dark Blue, 25 ga x 1/2", All Plastic Flocked Tips, pkg. 20	Embrace Seal-n-Shine, Embrace First-Coat	6.80
P25100	Dark Blue, 25 ga x 1/2", All Plastic Flocked Tips, pkg. 100		32.00
FD20	Automix Cartridge Tip + Intra-Oral Tip, pkg. 20 each	Spee-Dee Build-Up	28.50
FSB20	Automix tips	Tuff-Temp Plus 50 mL cartridge	21.15
A20	Automix Syringe Tips, pkg. 20	Embrace Resin Cement, Tuff-Temp Plus, ACTIVA 5 mL syringe	17.30
A50	Automix Syringe Tips, pkg. 50		38.50
A20N1	Automix Tips, clear, with bendable 20-gauge metal cannula – pkg of 20	Supplied with ACTIVA BioACTIVE-BASE/LINER and RESTORATIVE	27.35
A50N1	Automix Tips, clear, with bendable 20-gauge metal cannula – pkg of 50		62.35
AD20T	Automix Tips, clear + short intraoral tips (IOT) - pkg of 20	Supplied with ACTIVA BioACTIVE- RESTORATIVE	27.35
AD50T	Automix Tips, clear + short intraoral tips (IOT) – pkg of 50		62.35
AD20R	Automix Tips, clear + long, narrow intraoral tips (IOR) – pkg of 20	For use with 2.5mL, 5mL and 10mL 1:1 automix syringes	27.35
AD50R	Automix Tips, clear + long, narrow intraoral tips (IOR) – pkg of 50		62.35
AS20	Automix Tips, clear, straight, tapered – pkg of 20	For use with 2.5mL, 5mL and 10mL 1:1 automix syringes	16.40
AS50	Automix Tips, clear, straight, tapered – pkg of 50		37.40
DS05	ACTIVA-SPENSER™ - Dispenser for 5mL 1:1 automix syringes	ACTIVA BioACTIVE-RESTORATIVE	92.50
DS24	Dispenser for 25mL 1:1 automix cartridges	Spee-Dee Build-Up	90.00
DS50	Dispenser for 50mL 1:1 automix cartridges	Spee-Dee Build-Up, Tuff-Temp Plus	90.00





Amalgam Carriers

DOUBLE END AMALGAM CARRIERS

Stainless Steel Barrels		
AC2-RE	Regular (regular, large)	36.95
AC2-JU	Jumbo (regular, jumbo)	36.95
AC2-SJ	Super Jumbo (jumbo, jumbo)	36.95
Non-Stick Plastic Barrels		
AC4-RE	Regular (regular, large)	36.95
AC4-JU	Jumbo (regular, jumbo)	36.95
AC4-SJ	Super Jumbo (jumbo, jumbo)	36.95

SINGLE END AMALGAM CARRIERS

Stainless Steel Barrels		
AC1-RE	Regular	23.55
AC1-LG	Large	23.55
AC1-JU	Jumbo	23.55
Non-Stick Plastic Barrels		
AC3-RE	Regular	23.55
AC3-LG	Large	23.55
AC3-JU	Jumbo	23.55

Mini barrels and other barrel combinations are available on request.

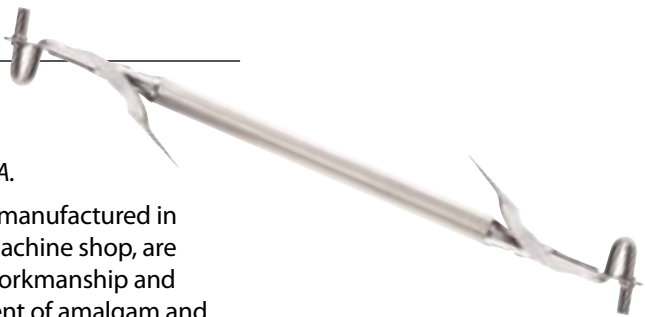
“The World Standard”

Manufactured by Pulpdent in Watertown, Massachusetts USA.

These precision instruments, manufactured in Pulpdent’s fully automated machine shop, are unsurpassed in quality and workmanship and ensure fast, effective placement of amalgam and condensable composites.

Pulpdent amalgam carriers are precision crafted of stainless steel and are light weight, perfectly balanced and easy to fill. They can be disassembled for cleaning or replacement of parts and are easily assembled again for long-term use.

Amalgam carriers are available in single-end and double-end models with either stainless steel or non-stick plastic barrels. They are available in combinations of mini, regular, large and jumbo barrels. Carriers with steel barrels are autoclavable. Those with non-stick plastic barrels should be placed in cold disinfecting solution.



E-Z Kleen™ Carriers

ACK2-RL	Double End - Regular-Large + 4 replacement twist-on barrels	45.00
ACK2-RJ	Double End - Regular-Jumbo + 4 replacement twist-on barrels	45.00

E-Z On, E-Z Off, Twist-on Barrels

These patented instruments feature a 2-part, twist-on plastic barrel. The threaded barrel is easily removed for convenient cleaning and fast in-office repairs or replacement, all with just a twist.

For use with amalgam or packable composite. Metal handles are autoclavable. Place white removable tips in cold disinfecting solution.



Pliers

PL-C	Cotton Pliers without lock, 6” (15 cm)	7.75
PL-CL	Cotton Pliers with lock, 6” (15 cm)	10.30
PL-M	Cotton Pliers, Meriam, 6” (15 cm)	7.75
PL-E	Endodontic Locking Pliers, 6” (15 cm)	12.35



One-Way™ Utility Scissors

USCI-S	Pkg of 10, Iris Type, 4 1/2”, straight	25.00
USCI-C	Pkg of 10, Iris Type, 4 1/2”, curved	25.00

Iris Type, 4½” Straight & Curved



A New Material For Polishing and Sealing Composite-Based Materials<sup>5</sup>

“[Seal-n-Shine™] is a clear resin that provides a smooth finish, eliminates the final polishing steps, and bonds in a slightly moist field; it appears not to alter the anatomy or occlusion of the tooth and does not discolor the restoration. . . . [T]his material penetrates and seals the microporosities and cracks in the composite and seals the margins. The clear shade helps maintain the shade of the composite used.”<sup>5</sup>

Seal-n-Shine™ Penetrating Finish & Polishing Resin

Light Cure • Wet-Bonding • Clear Shade

Seals Margins and Composites Finishes and Polishes Restorations

- Eliminates microleakage.
- Provides smooth, durable, long-lasting, protective finish.
- Cures clear. No yellow tint.
- Eliminates final finishing and polishing steps.
- Heals white lines. Prevents marginal staining.
- Tough and resilient.

Seal-n-Shine™ and other Embrace resins have exhibited exceptional results when tested for marginal sealing against microleakage, without the use of adhesives or bonding agents.<sup>1,2,3</sup>

It has been observed clinically and by scanning electromicroscopy<sup>4</sup> (SEM) that Embrace forms a close association with tooth structure and integrates with the tooth in a way that is unique for a dental resin, resulting in a positive seal and a smooth margin that is better adapted to the anatomy of the tooth.

EMSNS	6 mL bottle Seal-n-Shine™, brush handle, 100 brush tips	77.25
EMSNY	2 x 1.2 mL syringes Seal-n-Shine™ + 40 flocked tips	65.00



1. Pameijer CH
2. Degrange M
3. Khanbodaghi A, Kugel G, Sharma S, Ferreira S
4. Kane B, Karren J, Garcia-Godoy C, Garcia-Godoy F
5. Sharma S, Kugel G. CERP 2005;9(4):66-67.



1 Etched enamel and composite restoration.



2 Seal-n-Shine™ applied to etched enamel and composite and light cured.



3 Provisional restoration before Seal-n-Shine™.



4 Provisional restoration after application of Seal-n-Shine™.

Photos 1 & 2 courtesy of Dr. C.H. Pameijer; photos 3 & 4 courtesy of Dr. Shradha Sharma and Dr. Gerard Kugel



Sparkle Diamond Polishing Paste

Sparkle produces a glaze-like high luster finish on porcelain, gold, composite and metal. It does not splatter and washes off easily.

SPARK	Kit: 4 x 1.2 mL syringes	35.75
SPARK-3	3 mL syringe	20.30

“T”- Bands

BRASS OR STAINLESS (Box of 100)			These self-contained matrix bands do not require matrix retainers. “T”- Bands are made of soft, adaptable brass or stainless steel matrix material (.002”/.05mm thick) and are available straight, curved, narrow (5/32”), wide (¼”) and in assortments. “T”- Bands are especially popular for use in pediatric dentistry.
BT*S/N	Straight /Narrow (5/32”)	15.40	
BT*S/W	Straight/Wide (¼”)	15.40	
BT*S/A	Straight/Assorted	15.40	
BT*C/N	Curved/ Narrow (5/32”)	15.40	
BT*C/W	Curved/Wide (¼”)	15.40	
BT*C/A	Curved/Assorted	15.40	
*Specify B for brass or S for stainless			



Code Rings

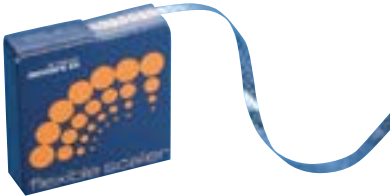
Our Highest Quality Instrument Identification Rings

- Now in two sizes!
- Medical grade silicone
  - Sterilize by any method
  - 11 gorgeous colors

<b>Standard Size:</b> 1/8”ID, 1/8”wide		
CR-AS	Pkg. of 100, 11 assorted colors	13.00
CR*	Pkg. of 100, all one color	13.00
CR*-50	Pkg. of 50, all one color	7.50
<b>Large Size:</b> 7/32” ID, 5/32” wide (available in white, yellow, blue, red, green, black & orange)		
CR-ASL	Pkg. of 60, 7 assorted colors	18.00
CR*60L	Pkg. of 60, all one color	18.00
*Replace asterisk with color number: 1 = white, 2 = yellow, 3 = blue, 4 = red, 5 = green, 6 = black, 7 = gray, 8 = brown, 9 = orange, 10 = mauve, 11 = pink		

Dead Soft Matrix Strip, FINTREC

M-DS	Fintrec Dead Soft Matrix, .001” thick x 20 foot roll, 8 mm wide	68.00	Ultra-thin (.001”/.025mm), dead soft, memory-free, annealed stainless steel matrix material for use with amalgam and self-cure composites.
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Flexible Scaler

For removing plaque, tartar and stain from interproximal contact areas of anterior teeth. Polishes without scratching. Does not damage enamel. Reusable stainless steel. Sterilize by any method.

FLEX	Flexible Scaler, 2 meter roll	68.00
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Transparent Matrix Strip, FINTREC

M-TP	Fintrec Transparent Polyester Strip,.002” thick x 59 foot roll, 8 mm wide	25.50	Extra-thin (.002”/.05mm) light permeable polyester matrix material for use with light cure or self-cure composites.
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Rainbow Wedges™

W	Rainbow Wedges, Starter Kit, box of 400, 4 assorted sizes	38.75	Strong wooden wedges in four color coded sizes. Anatomically contoured to avoid laceration of gingival tissue.
W-*	Refill, bag of 100, all one size.	10.00	
*Specify size: Blue = 12mm, Green = 13mm, Yellow = 15mm, White = 17mm			



Crimper Cutter Pliers

Combines a crimper and a scissors. Perfect for use with Pulpdent “T”- Bands.

PCR	Crimper Cutter Pliers	23.50
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Transparent Wedges, FINTREC

FIN	Fintrec Transparent Wedges, box of 250 silver coated wedges on daisy wheels	49.95	One size fits all. Silver coated, tapered wedges in fabulous “daisy wheel” dispenser package. <ul style="list-style-type: none"><li>• Unique “daisy wheel” packaging for convenient dispensing and storage</li><li>• Wedge design tapers on 4 sides to fit all interproximal spaces (0.5 - 2mm)</li><li>• Silver coating on one side reflects light onto curing site</li></ul>
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Crown and Bridge Remover

Sliding weight and three interchangeable tips to fit all requirements. Stainless steel.

CRR-3	Crown and Bridge Remover with 3 tips	99.50
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Tray Adhesive

For use with all impression materials. Place a thin application on the impression tray

DTA2	29.5 mL bottle	18.00
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Disposable Mixing Wells

MW-2	Disposable Mixing Wells, two-well configuration, box of 480	49.95	<b>Convenient and Economical</b>  For Use With All Dental Materials
MW-4	Disposable Mixing Wells, four-well configuration, box of 420	49.95	<ul style="list-style-type: none"><li>• Available in two-well and four-well configurations</li><li>• Made from a high molecular weight polymer</li><li>• Compatible with all dental materials</li><li>• Easy to pick up</li><li>• Perforated sheets for convenient handling and storage</li><li>• Economical bulk packs</li></ul>



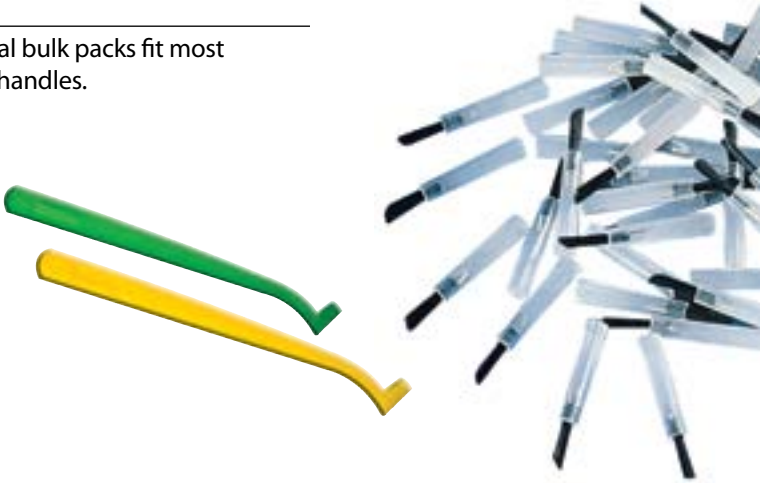
Mini-Bowls

B-MS3	Small, 8 cc, set of 3 (1" diameter)	19.55	Handy Silicone for mixing acrylic.
B-MM2	Medium, 30 cc, set of 2 (1.625" diameter)	19.55	<ul style="list-style-type: none"><li>• Non-stick silicone</li><li>• Suction cup on bottom holds bowl to the table</li></ul>
B-ML	Large, 80 cc, one each (2.25" diameter)	13.70	<ul style="list-style-type: none"><li>• Just squeeze and hardened acrylic snaps out</li><li>• Sterilize by any method</li></ul>
B-MA	Assorted: 2 small, 1 medium, 1 large	35.85	<ul style="list-style-type: none"><li>• 3 sizes: Small: 8 cc; medium: 30 cc; large: 80 cc</li></ul>



Brush Tips and Handles

BR	Brush tips, 24mm length, bag of 100	10.70	Brush tips in economical bulk packs fit most standard dental brush handles.
BRL	Brush tips, 24mm length, bag of 500 + 2 handles	45.40	
HAN	Brush handle, 5" length, random colors	2.25	
BR2	Long handle brushes, 21/8", bag of 50	6.15	
BR2L	Long handle brushes, 21/8", bag of 400	26.40	



Kool Dam Procedure



1 Kool-Dam is placed to protect the gingiva. It light cures in 20 seconds.



2 Kool-Dam is placed to protect soft tissue prior to bleaching.



3 Kool-Dam is placed on the model prior to making a custom bleaching tray.

Kool-Dam™ Heatless Liquid Dam & Block Out Resin

Light cure	PD	Kit: 2 x 3 mL syringes + 20 pre-bent tips	46.50
	PDB	Bulk Pack: 10 x 3 mL syringes	145.00

- Kool-Dam is formulated to eliminate the problems associated with light cure liquid dam materials.
- Does not produce heat when cured, ensuring patient comfort.
  - Does not run. Place everywhere needed and light cure all at one time.
  - Remains rubber-like and flexible after curing.
  - Tear resistant. Easily removed.

Apply Kool-Dam on the gingival or tooth surface and light cure prior to bleaching, sandblasting, applying porcelain etch or other procedures requiring intraoral protection. Also use Kool-Dam to block out undercuts prior to taking impressions.

Kool-Dam remains cool during light curing and remains flexible when cured. It is conveniently dispensed from a syringe using small applicator tips for accurate placement, and is easily removed upon completion of the procedure.

- Stays where placed
- Stacks on itself smoothly and evenly
- Moisture friendly chemistry works well in oral environment
- Adheres to models for making bleaching trays
- Blocks out undercuts
- Repairs tears in rubber dams



Pic-n-Stic™

It's the extra fingers you've been waiting for.

The original "handle for small objects" has numerous applications from dentistry to model making to placing hearing aid batteries. The 2" long stick is 2 mm in diameter with an adhesive tip on one end.

Pic-n-Stic Clinical Uses



1 Embrace Resin Cement is placed on an inlay seated on a Pic-n-Stic.



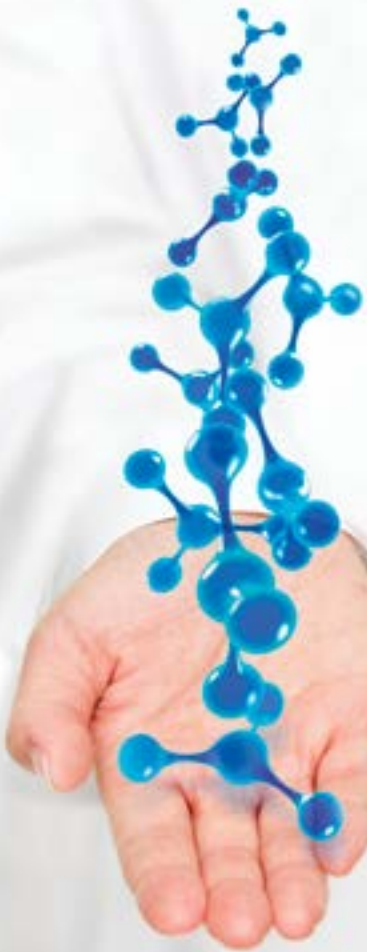
2 Pic-n-Stic assists in placement of the inlay.



3 Pic-n-Stic is used to place an orthodontic bracket.

# The Future of Dentistry Now in Your Hands.

Changes everything you know about traditional Composites, Glass Ionomers and RMGIs



## TOUGH, DURABLE & ESTHETIC ACTIVA™ 30-MONTH RECALL



**October 7, 2012**  
ACTIVA BioACTIVE-  
RESTORATIVE post-op.  
*Photos courtesy of  
Dr. John Comisi*



**March 23, 2015**  
30-month recall  
shows great esthetics,  
no wear or chipping,  
no marginal staining



## BIOACTIVE COMPOSITE MIMICS NATURE



- Mimics the physical and chemical properties of teeth
- Releases/recharges calcium, phosphate and more fluoride than glass ionomer
- Chemically bonds, integrates and seals teeth

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