

THE DENTAL ADVISORTM

"Improved Patient Care Through Research"



Photography by George L. Poy, DDS, Hartland, Michigan

Temporary Cements

The proper selection of a temporary cement is important to the retention of the provisional restoration and the comfort of the patient, and may be dictated by the final cement planned for use.

Temporary cements can be divided in five groups: non-eugenol zinc oxide, polycarboxylate, resin, zinc oxide – eugenol, and zinc oxide – polysiloxane. Resin cements have the highest compressive strengths and retention.

This issue of THE DENTAL ADVISOR discusses properties of temporary cements and compares 29 products.

2005

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TEMPORARY CEMENTS 2

CLINICAL EVALUATIONS

Ionofil Color AC	6
(Glass ionomer)	
Ionofil Plus AC	6
(Glass ionomer)	
Ionofil Molar AC Quick	7
(Glass ionomer)	
Argion AC	8
(Glass ionomer)	
KCP1000 Flexijet	8
(Air abrasion unit)	
Strauss Diamond Burs	9
Sonicare Intelliclean system 8800	10
(Power toothbrush)	
Xeno IV	10
(Bonding agent)	
Flexi-Flow Auto/Flexi-Flow Auto E	12
(Resin post cement)	
Ti-Core Auto E	12
(Composite core material)	
DentalEZ Silhouette Chair	13
Clearfil PhotoCore PLT	14
(Composite core material)	

EDITORS' CHOICE

EQUIPMENT	
Elements Obturation Unit	15
PRODUCT	
Estelite Sigma	16
(Universal composite)	

EDITORIAL

Lecture Schedule	16
------------------------	----

Ratings

Excellent	+++++
Very Good	++++
Good	+++

Temporary Cements *continued*

Resin

- + Higher strength and retention
- + Better esthetics
- + Dual-cured cements (**Systemp.link**, **Temp-Bond Clear**)
- + Good for retaining a temporary clasped by a removable partial denture
- High incidence of microleakage, discoloration, and odor

Zinc Oxide-Eugenol

- + Reduced post-operative sensitivity
- + Excellent antibacterial effect
- Compromises the bond strength of permanent resin cement

Zinc Oxide-Polysiloxane

- + Fast setting time
- + Easy clean-up
- Lower retention

Questions and Answers

Is it ok to use petroleum jelly as a potential additive to temporary cements? The incorporation of white petrolatum (5-10% by volume) into the mix of many of the zinc oxide-eugenol and some of the non-eugenol zinc oxide cements decreases the strength and lowers retention. Setting time is generally unaffected by this practice.

Is it necessary to lubricate preparations before the addition of cement? Use lubrication of the preparation to assist in eventual removal of the temporary, to avoid adhesion to underlying polymers, and to reduce the deposition of cement by-products on the preparation. Recommended

lubricants are petrolatum, mineral oil, water-based lubricant, glycerin, surgical soap, or the cement's proprietary agent.

Why should I purchase an auto-mixed temporary cement? Several temporary cements are available in auto-mixed syringes and may cost more; however, there are important advantages to this type of system:

- Improves operator speed when cementing multi-unit restorations
- Ensures a proper ratio of the base and catalyst
- Ensures proper mixing time

Are a variety of shades available? Available shades depend on the product and include clear, opaque white, cream, and medium- and dark-yellow.

Clinical Tips

- Some temporary cements are available in unit dose and are excellent to provide to patients who may be traveling while in the provisional phase.
- Dual-cured resin temporary cements can be partially light cured around the margins to allow easier removal of excess.
- Place a desensitizing agent on the tooth before temporary cementation for patients with a history of dentin hypersensitivity. *Caution – do not use a resin-based desensitizer with a resin-based temporary cement.*
- Failure to thoroughly clean the preparation prior to cementation of an all-porcelain crown may result in a compromised adhesive resin bond. All residual cement, stain and debris must be removed. ■

Other Featured Products



Hy-Bond
(Shofu)



NoMIX Temporary Cement
(Centrix)



PowerTemp
(J. Morita USA)



ProvisaCEM
(Benco Dental)



SensiTemp Resin
(Sultan Chemists)



Systemp.link
(Ivoclar Vivadent)



TempoSIL
(Coltène/Whaledent)

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*Technique Sensitivity –
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*The Clinician's Guide
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ADVISOR

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For complete information, or to **REGISTER** for this valuable seminar, visit www.dentaladvisor.com or call **800.347.1330**, ext. 113 today!

Ionofil Color AC + + + ½

VOCO GmbH
888.658.2584
www.voco.com/usa

Description

Ionofil Color AC is a modification of VOCO's classic esthetic glass ionomer restorative/base cement with a glitter effect in green, pink or blue added for pediatric use. **Ionofil Color AC** creates a chemical bond to enamel and dentin, exhibits high radiopacity and ongoing fluoride release and recharging. Unit-dose capsules are mixed in a standard capsule mixer (units must provide 4000-4500 oscillations/minute). Elapsed time before polish includes 10 seconds for mixing, two minutes for placement and four minutes for set. Standard cement placement and shaping instruments may be used. Set material should be protected from dehydration or moisture by an appropriate varnish or resin coating. Polishing is achieved by routine techniques. The kit contains 16 capsules each of green, pink and blue material and 3 ml of varnish. The activator and applicator are available separately. **Ionofil Color AC** was evaluated by 23 consultants. This product received an 82% clinical rating.

Suggested Retail Cost
• \$133.50/kit



Consultants' Comments

- ▶ "Flows well into preparations."
- ▶ "Plenty of material in each capsule for more than one restoration."
- ▶ "Good adhesion, radiopacity and fluoride release."
- ▶ "Useful as a long-term temporary."
- ▶ "A faster set would be better for pediatric use."

Product Features

Instructions are complete and clearly presented. Activation of the capsules and placement

of **Ionofil Color AC** are straightforward. Consistency of mixes is excellent. Working time is adequate, yet setting time is too long for use in pediatric cases. The dispensing gun was noted by consultants to be bulky. A fine-size nozzle allows accurate, direct placement of cement into cavity preparations. Seventy percent of offices found the concept of "glitter fillings" well accepted. The three colors were equally preferred. **Ionofil Color AC** provides good retention to tooth structure and offers high color contrast. As a block-out/base material, it received good to excellent ratings. Sixty-four percent of consultants stated that **Ionofil Color AC** compared favorably to their current product; 22% would purchase it, and 50% would recommend it to colleagues.

Clinical Tip

- Wet the placement instrument with an alcohol pad to improve handling. ■

Ionofil Molar AC Quick + + + ½

VOCO GmbH
888.658.2584
www.voco.com/usa

Description

Ionofil Molar AC Quick is a highly viscous, encapsulated glass ionomer that is used as a restorative, block-out or core build-up material. After activation and mixing for 10 seconds, it has a 90-second working time and 150-second setting time. The material has a high fluoride release and uptake and is radiopaque. It is encapsulated and can be mixed in a standard capsule mixer. **Ionofil Molar AC Quick** is packaged in foil pouches with four capsules each. The starter set includes 48 capsules in shades A1, A2 and B3 plus an activating and applicator device. Twenty-nine consultants used **Ionofil Molar AC Quick** in over 245 applications. This product received an 83% clinical rating.

Suggested Retail Cost
• \$123.35/starter set

Product Features

Manufacturer's instructions and packaging received excellent marks. Consultants liked the packaging of four capsules together. Fifteen consultants found the capsules



Consultants' Comments

- ▶ "Great for cores and block-outs."
- ▶ "Useful for restoring root caries."
- ▶ "I like the multiple shades."
- ▶ "Good as a temporary for broken cusps."
- ▶ "Not always easy to activate."
- ▶ "Tip on capsule too wide and too short."

easy to activate, while the remainder found activation to be more difficult. The majority of consultants noted that the nozzle on the capsule was too short, making it difficult to access posterior teeth.

Ionofil Molar AC

Quick was found not to be sticky after initial application, but several consultants mentioned that they preferred a faster setting material that is either light- or dual-cured. The heavy consistency of the material does not slump and works well for cores as well as block-outs or for emergency use. About 60% of consultants said they would recommend it, while about 20% noted that they would switch to it.

Clinical Tips

- Leave capsules sealed in the foil pouch to prevent dehydration of the material. Once opened, all capsules in the pouch should be used within one month.
- Use alcohol or a plastic placement instrument to minimize stickiness.
- After mixing, load the material into a smaller-tipped syringe to enhance the ease of placement. ■

Ionofil Plus AC + + + ½

VOCO GmbH
888.658.2584
www.voco.com/usa

Description

Ionofil Plus AC is a glass ionomer restorative used for Class III and V restorations, bases and liners. It has a medium viscosity and is available in tooth-colored shades. The material is encapsulated for mixing in standard amalgamators at 4000-4500 oscillations per minute. The capsule is activated before triturating and is injected directly into the cavity preparation using an application gun. The working time is about two minutes, with a setting time of four minutes. After application, **VOCO Final Varnish LC** can be applied and light-cured for 10 seconds to seal the surface of the restoration with a glossy finish. **Ionofil Plus AC** is designed to provide long-term fluoride release and have a spreadable consistency. Included in the introductory kit are 48 capsules in shades A1, A3 and B3; 3 ml of **VOCO Final Varnish LC**; and instructions. Vita shades A1, A2, A3, and B3 are available in refill packages



Consultants' Comments

- ▶ "Consistent mix."
- ▶ "Set time is slow, especially for pediatric uses."
- ▶ "Make it less sticky."
- ▶ "Tip is too large for injection into smaller preparations and undercuts."

of 48 capsules. Seventeen consultants used **Ionofil Plus AC** in over 200 clinical uses. This product received an 82% clinical rating.

Suggested Retail Cost
• \$119.95/introductory kit

Product Features

The majority of consultants who evaluated **Ionofil Plus AC** were using a resin-modified glass ionomer with light-cure capability. The instructions and packaging are simple and straightforward. The capsules are easy to activate and load

with excellent consistency from mix to mix. The variety of shades was appreciated by consultants and the esthetics were found to be typical of glass ionomers. Some consultants found the material useful for block-out on crown preparations and as a base or liner under deep restorations using a "sandwich" technique. As with most glass ionomers, the material is sticky and is easier to manipulate with lubricated placement instruments. The setting time is too slow for pediatric applications, and many consultants would have preferred light-cure capability. The application gun was found to be adequate. Sixty percent of consultants found **Ionofil Plus AC** to be equivalent to or better than their current glass-ionomer material. Sixty-five percent would recommend it for use by a colleague.

Clinical Tips

- Use **VOCO Final Varnish LC** (light-cured) for final surface glazing.
- Before application, clean residual debris from the cavity of using a 3% hydrogen peroxide solution or other cavity cleaners. ■

Editors' Note: The selection of restorative materials as part of treatment planning cannot be over-emphasized. The choices available in the category of "intratooth esthetic restoratives" (IER) range from those based on polymer chemistry and inorganic fillers of original composites to the traditional glasses and poly acids of glass ionomer cements (GIC). To take advantage of the pluses of each, modifications have given rise to a broad range of hybrids known as compomers and resin-modified glass ionomers (RMGI). The former are more like composites in esthetics, chemistry, advantages/limitations, and requirements of use; the latter are more like GICs. No two are alike, even in the same category. Comparisons of IERs should not be limited to a single characteristic, such as visible light cure, while ignoring the very real advantages of long-term fluoride release, even though that is accompanied by longer set times. New materials, as well as traditional products, must be evaluated by the clinician for their total contribution to the modern dental practice. Our patients are all, to some degree, niche patients, with special and individual needs, and it is in this setting that niche products are so very important.

Argion AC + + + ½

VOCO GmbH
888.658.2584
www.voco.com/usa

Description

Argion AC is a silver-reinforced, medium-viscosity glass ionomer restorative material packaged in capsules. **Argion AC** is recommended as a core build-up, liner/base and primary tooth restorative. The material is gray in color, is radiopaque and contains fluoride. **Argion AC** capsules are activated, mixed in a triturator and directly applied into the cavity preparation. Working time is 1.5 minutes and the material self-cures in two to three minutes after placement. **VOCO Final Varnish** should be applied immediately to the surface of the restoration. After seven minutes, finishing and polishing may be performed, followed by another application of varnish. The kit contains 48 capsules of glass ionomer and varnish. Twenty consultants used **Argion AC** in 162 restorations. This product received an 82% clinical rating.

Suggested Retail Cost
• \$115.95/kit



Consultants' Comments

- ▶ *"Great for use in high-carries-risk patients."*
- ▶ *"Make the nozzle tip longer and easier to bend."*
- ▶ *"Great color contrast for core build-ups."*
- ▶ *"Several capsules did not activate and were just powder after mixing."*

Product Features

When used as a core or base/liner, **Argion AC** provides good adhesion to dentin. Instructions are easy to follow, yet capsule activation and handling are cumbersome. Consultants disliked the multiple steps needed to activate the capsule and would prefer a single-step activation. Material placement is hindered by the capsule's fixed angle and short nozzle. Several consultants commented on the material sticking to their instruments and to matrix bands. More than adequate working time was available but the material was judged to take too long to set. Like all glass ionomers, the surface finish is somewhat grainy. Consultants liked the grey color when they were using **Argion AC** as a core material, as the color contrast made it easy to see the margins. Twelve percent of consultants would switch to **Argion AC**, while 40% would recommend it. ■

Strauss Diamond Burs + + + + ½

Strauss Diamond Instruments
800.982.9641 • 203.221.1332
www.strausdiamond.com

Description

Strauss Diamond Burs are available in a wide selection of shapes and sizes, and in five color-coded grits: super coarse, coarse, medium, fine, and super fine. The burs are made by the application of a homogeneous, plated diamond surface to a one-piece stainless steel blank. They are available in packages of six in a plastic box with a clear sliding top for easy identification and selection. The burs are guaranteed for 3-5 crown preparations. Three shapes (football,



Consultants' Comments

- ▶ *"These burs work well in my electric handpiece."*
- ▶ *"Good bulk reduction with the coarse grit."*
- ▶ *"Can prepare several teeth with each bur."*
- ▶ *"Nice assortment of shapes."*
- ▶ *"The catalog is well laid out for easy ordering."*
- ▶ *"I'd like to have these in a short-shank version."*

wide round-end taper, narrow round-end taper) in a coarse grit of the **Strauss Diamond Burs** were evaluated by 29 consultants in over 380 uses. This product received a 91% clinical rating.

Suggested Retail Cost
• \$1.75 each (super fine, fine, medium, and coarse)
• \$2.50 each (super coarse)

Product Features

Consultants consistently gave **Strauss Diamond Burs** high marks for packaging, fit to handpiece, shank length, concentricity, and resistance to clogging. The cutting efficiency and durability of the burs were features that consultants appreciated. Several noted that the burs lasted longer and cut better than other burs they had used, making them very cost-effective. Eighty-two percent of consultants would switch to **Strauss Diamond Burs** and 90% would recommend them to colleagues. ■

KCP1000 Flexijet + + + + ½

American Medical Technologies, Inc.
800.359.1959 • 361.289.1145
www.americanmedicaltech.com

Description

KCP1000 Flexijet is a freestanding air abrasion unit designed for intraoral and extraoral use with improvements over the original **KCP1000**. In addition to providing a high-velocity stream of alumina particles (27- or 50-µm sizes) for dry cutting, the **KCP1000 Flexijet** contains an internal heated water system for optional wet cutting (hydroabrasion). When water is selected, the envelope of water spray limits scatter of abrasive particles. The microprocessor-controlled powder flow can be preset or programmed by the user for customized cutting of tooth structure. **KCP1000 Flexijet** is indicated for tooth preparation for composite restorations and sealants, enamel or porcelain roughening,



Consultants' Comments

- ▶ *"The best air abrasion unit I have used!"*
- ▶ *"The warm water reduces tooth sensitivity during the procedure."*
- ▶ *"Efficient cutting of enamel and dentin compared to other units."*
- ▶ *"The addition of water significantly decreases, but does not eliminate, overspray."*
- ▶ *"Water and powder spray continue for a few seconds after the foot pedal is disengaged."*
- ▶ *"I would like a larger foot pedal cage."*

and internal sandblasting of indirect restorations. A plasma-arc light for curing composite restorations is built into the unit and operated by the same foot pedal that controls the air abrasion handpiece. The main controls on the unit include a preset button, pressure increase/decrease buttons, air purge and water spray volume adjustments. A two-stage foot pedal allows the user to control the powder stream,

while activating or deactivating the water spray. After 10 minutes of non-use, the unit enters a "hibernation" mode. Ten consultants evaluated the **KCP1000 Flexijet** over a six-month period. This equipment received a 93% clinical rating.

Suggested Retail Cost
• \$13,000/unit

Equipment Features

The **KCP1000 Flexijet** design features a modern appearance, and casters provided maneuverability. The manufacturer's instructions for set-up and use are thorough, though lengthy. Filling of the water bottle and powder chambers is straightforward, and the convenient location of all controls on the main console makes adjusting the air pressure and powder volume easy. Consultants who evaluated **KCP1000 Flexijet** all agreed that the introduction of water into the powder stream was a benefit to both cutting efficiency and reduction of particle

scatter. With adequate evacuation, visibility of the cavity preparation is better with hydroabrasion compared to dry air abrasion. The water spray helps to reduce overspray but does not eliminate it. The **KCP1000 Flexijet** cuts enamel, dentin and composite as well as or better than other air abrasion units available. Half of consultants who used the **KCP1000 Flexijet** would switch to the unit and recommend it to a colleague.

Clinical Tips

- Use a rubber dam to protect against soft tissue injury.
- Eye protection for operator and patient is mandatory.
- Use 27-µm powder for cutting and 50-µm powder for abrading. ■

SENIOR CLINICAL CONSULTANTS

E. Alpert, CT
R. Anthony, OH
K. Baker, TX
R. Ciccone, MI
P. Esmond, NY
M. Evans, TN
R. Fisher, OH
G. Franco, NY
P. Grandsire, NY
K. Hamlett, TX
G. Hart, OH
R. Kaprielian, NJ
E. Katkow, MD
L. Katkow, MD
C. Kehr, MI
E. Maitland, NJ
E. Mosso, PA
G. Mosso, PA
D. Peterson, MD
V. Plaisted, NY
W. Powell, TX
G. Poy, MI
G. Sayre, TX
K. Schwartz, FL
B. Shumaker, NJ
B. Sims, NY
A.M. Thompson, NY
R. Trushkowsky, NY
L. Wee, MI

CLINICAL CONSULTANTS

A. Abate, MI
M. Aksu, MI
A. Alexander, PA
J. Allen, MI
J. Amara, CT
R.M. Arnett, MI
R. Averbach, CO
A. Azrak, NY
M. Bannan, MI
D. Barnes, MD
F. Berman, PA
M. Beyramian, MI
L. Bishop, MI
J. Bostic, OH
D. Bowen, MI
E. Bowser, PA
H. Bowser-Sletten, PA
R. Bozell, MI
M. Braverman, NY
L. Brimhall, MT
M. Briskin, NY
C. Brown, LA
W. Brownscombe, MI
H. Buckwald, NJ
J. Bush, PA
H. Cadorette, MI
P. Campo, NY
M. Chaben, MI
D. Chacko, TN
S. Cheff, TX
R. Cherry, FL
P. Chiaravalli, MI
T. Chuang, NJ
A. Colarusso, NY

Sonicare IntelliClean system 8800 + + + +

Philips Oral Healthcare, Inc.
800.676.SONIC
www.sonicare.com

Description

Sonicare IntelliClean system 8800 is a rechargeable power toothbrush with patented sonic technology that combines high-frequency brushstrokes with an extra-wide sweeping motion to create dynamic fluid cleaning action. Unique to **Sonicare IntelliClean system 8800** is a function that dispenses self-contained liquid toothpaste, formulated by **Crest**. Each professional trial pack includes an **IntelliClean** handle with brush head, a hygienic travel cap for the brush head, a charger base, a brush head holder, a contoured soft travel case, an educational CD-ROM, and three liquid toothpaste cartridges (two IntelliClean and one IntelliClean + Whitening). **Sonicare IntelliClean system 8800** has an easy-start brushing power ramp-up feature that gradually increases to full



Consultants' Comments

- ▶ *"I would recommend it for patients with arthritis or those who have problems holding onto regular toothbrushes, because the handle is large."*
- ▶ *"The handle is large and harder to maneuver than the Sonicare Elite."*
- ▶ *"Toothpaste dispensing is nice, but I am not sure if it is worth the cost."*
- ▶ *"The power button is in a hard-to-reach area."*

Patients' Comments

- ▶ *"It is fun using the toothpaste that squirts out!"*
- ▶ *"It does a good job cleaning my teeth. It is quiet and easy to clean."*
- ▶ *"I don't like the taste of the toothpaste, and it seems so runny in my mouth."*

power over the first 14 brushings to acquaint a new user with the vibrating action of the brush. The unit also features a programmable **Quadpacer**® which is a four-interval, 30-second timer that beeps between intervals, indicating

the recommended length of time to brush each quadrant of the mouth. The **Quadpacer** can also be programmed for an additional 30 seconds of extended brushing time. Other features include an illuminated battery light and a dual-speed control. Thirty-nine dental professionals and patients used **Sonicare IntelliClean system 8800** over a two-month evaluation period. This product received a 90% clinical rating.

Suggested Retail Cost

- \$69.00 – \$77.00 (price for the dentist to purchase for resale to patients, based on number ordered. MSRP \$139.00 – \$149.00)
- \$18.45/carton of 18 **IntelliClean Cartridges** (price for the dentist to purchase for resale to patients, MSRP \$8.99/six pack)

Product Features

Most consultants found the ease of operation, the size and softness of the brush head, the instructions, and the cleaning effectiveness of the **Sonicare IntelliClean system 8800** to be excellent. Several

noted the convenience of not having to place toothpaste on the brush and found the brush quieter than the **Sonicare Elite**, while at the same time giving a very polished and smooth result. The programmable **Quadpacer** and the design ability for placement on the counter were also highly rated. Many patients, however, stated that the overall size of the toothbrush was awkward and bulky, preferring a more slender handle. Ratings for the overall taste and consistency of the toothpaste varied widely, depending on personal preferences. Toothpaste cartridges lasted an average of two to three weeks with twice daily use. Many patients perceived difficulty in changing the toothpaste cartridges. Ninety percent of consultants and patients said they would recommend **Sonicare IntelliClean system 8800**, and 80% will continue to use it.

Clinical Tips

- To avoid splatter, do not turn the unit on until the brush head is in the mouth.
- Keep lips sealed while brushing to avoid liquid toothpaste from spattering. ■

Xeno IV + + + + ½

DENTSPLY Caulk
800.532.2855 • 302.422.4511
www.dentsply.com

Description

Xeno IV is a 7th-generation dental adhesive containing fluoride. It incorporates a self-etching, light-cured adhesive in a single component with no mixing required and is indicated for use with direct light-cured composite and compomer restorations. **Xeno IV** adhesive is based on a water/acetone formula with a new cross-linking agent, AHPMA, incorporated to enhance the adhesion between the adhesive layer and the uncured restorative material. Due to a special combination of monomers, no separate phosphoric acid etching of dentin or enamel is necessary and is, in fact, contraindicated. Two coats of **Xeno IV** are scrubbed for 15 seconds each into the prepared tooth, followed by five seconds of gentle air to evaporate the solvent, and then light-cured for 10 seconds. The self-etch formula creates a homogeneous bond layer to cover the dentin and enamel to help reduce post-operative sensitivity. It is available in an introductory kit including a 4.5-ml bottle of adhesive plus accessories or in a unit-dose package with 100

unit-doses plus accessories. Twenty-six consultants evaluated the unit-dose package of **Xeno IV** in over 700 clinical applications. This product received a 93% clinical rating.

Suggested Retail Cost

- \$120.00/introductory kit
- \$220.00/unit-dose package

Bond Strength to Tooth Structure, MPa		
	Enamel	Dentin
Bond Strength	21	25

Product Features

Application of **Xeno IV** and the surface wetting of the tooth were both highly rated. The two coats provide a glossy surface after removal of the solvent with air. The unit-dose delivery was appreciated for providing fresh material at each application along with the lack of evaporation. There is adequate volume of adhesive in each unit dose for use on multiple preparations. The unit-dose container is too narrow



Consultants' Comments

- ▶ *"Having only one component simplifies the bonding procedure."*
- ▶ *"Great system for pediatric patients because it is quick and has little odor."*
- ▶ *"Unit dose helps eliminates the evaporation issue that exists with an open bottle."*
- ▶ *"The unit dose is somewhat difficult to open."*

to maintain a bend in the applicator brush when reinserted. A container with a wider opening would be preferred. Seventy-three percent of the consultants rated **Xeno IV** equivalent to or better than their current adhesive, while 54% would recommend it and 42% would switch.

Clinical Tips

- **Xeno IV** is not indicated for uncut enamel. Place a bevel on enamel when using for Class III, IV and V restorations.

- Do not use phosphoric acid on dentin before placing **Xeno IV**. Phosphoric acid penetrates the dentine tubules too deeply and can lower the bond strength. ■

Editors' Note: As with many new adhesive systems, consultants are hesitant to recommend or switch to them until long-term clinical data are available.

CLINICAL CONSULTANTS

M. Conrad, PA
K. Dancy, GA
M. Danner, IL
J. Dingman, WI
J. DiPonziano, NJ
R. Donelli, NY
R. Dost, VA
J. Doueck, NY
M. Dwoskin, MI
M. Eannaccone, NY
R. Engle, IL
K. Fairbanks, MI
T. Faiver, MI
R. Fay, TX
N. Fehmi, MI
M. Feinberg, NY
L. Feldman, NJ
J. Fine, NJ
K. Fischer, IN
S. Galster, ND
D. Garber, CA
N. Garlisi, OH
M. Gay, MI
L. Gee, OK
A. Giovanardi, MI
J. Glick, MI
B. Goldsmith, NY
I. Goldstein, NJ
K. Goodman, MI
S. Graber, IL
A. Gray, MI
D. Griggs, OH
J. Grover, MI
B. Gursky, MI
E. Gutman, NY
D. Haas, Canada
H. Hamerink, MI
S. Harden, GA
B. Herrmann, CA
R. Herwig, KS
M. Hewko, OH
S. Hoekman, MI
S. Hondrum, GA
J. Hoste, MI
M. Hovel, WI
S. Hutt, NJ
P. Indianer, MI
G. Isaacson, NJ
S. Isaacson, NJ
J. Jaghab, MI
J. Jacobs, NY
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T. Jowett, KS
C. Kamin, OH
J. Kaminski, MI
T. Kaminsky, PA
D. Kaplan, NY
M. Kastner, OH
S. Kelly, OH
D. Keren, NY
J. Kim, NY
B. Klym, MI
J. Kostohryz, TX
J. Kotapish, OH

Flexi-Flow Auto/Flexi-Flow Auto E + + + + ½

Essential Dental Systems
800.223.5394 • 201.487.9090
www.edsdental.com

Description

Flexi-Flow Auto and **Flexi-Flow Auto E** are self-curing resin cements indicated for use with prefabricated post systems. The cement is supplied in dual-barreled syringes with mixing tips and long, thin delivery tips. **Flexi-Flow Auto** is titanium-reinforced and available in a gray shade. **Flexi-Flow Auto E** esthetic cement is lanthanide-reinforced and available in shade A2. Both cements are radiopaque and contain fluoride. Neither of these **Flexi-Flow** cements should be used with self-cured bonding agents. Working time is three minutes, and setting time is five minutes after the start of mixing. Each kit contains two syringes with 4.5 g each of base and catalyst, 20 mixing tips and 20 delivery tips. Thirty consultants used and evaluated **Flexi-Flow Auto** and **Flexi-Flow Auto E** in over 200 post cementation procedures. This product received a 94% clinical rating.

Suggested Retail Cost
• \$100.00/kit

Product Features

Flexi-Flow Auto and **Flexi-Flow Auto E** are easy to use with the automix feature. The delivery tips are outstanding for application of cement directly into the post space.



Consultants' Comments

- ▶ *"Better dispensing than other similar cements."*
- ▶ *"Nice delivery tip design – it reaches deep into the post space."*
- ▶ *"No need to place cement onto the post!"*
- ▶ *"Long setting time."*
- ▶ *"Make mixing and delivery tips available separately."*

Viscosity of the cement is very good – not too runny or too thick – and the flow into the canals is adequate. Working time is adequate, and the cement sets very hard in a reasonable amount of time. Some consultants indicated a desire for dual-cured capabilities for control of the setting time. Excess cement is easy to remove at the gel state. Because the material does not require a bonding agent, post cementation is accomplished simply and efficiently. Generally the esthetic shade was preferred. Eighty-eight percent of consultants rated **Flexi-Flow Auto** and **Flexi-Flow Auto E** to be equivalent to or better than the product they currently use to cement posts. Eighty-five percent would switch to

Flexi-Flow Auto/Flexi-Flow Auto E and recommend the products to a colleague.

Clinical Tips

- Move delivery tip slowly out of canal to minimize air bubbles.
- For maximum depth of cement placement, use a lentulo spiral to spin cement to the apical end of the post space.
- Retention may be increased by etching or placing grooves in the post space.
- Do not use a bonding agent with this cement – it greatly accelerates the setting time. ■

Ti-Core Auto E + + + + ½

Essential Dental Systems
800.223.5334 • 201.847.9090
www.edsdental.com

Description

Ti-Core Auto E is a dual-cured hybrid composite core material for vital and non-vital teeth. It is reinforced with lanthanide, contains fluoride and is radiopaque for easy identification. Any 4th-, 5th- or 6th-generation/type 1 bonding agent may be used for bonding **Ti-Core Auto E**. It is packaged in dual-barreled syringes containing 4.5 g each of the base and catalyst in shade A-2. The kit contains two syringes of **Ti-Core Auto E**, mixing tips and intra-oral tips. The working time is 3:45 minutes with a chemical cure

time of six minutes. Light curing for 20 seconds is sufficient with any halogen light for a 2-mm thickness. Twenty-three consultants evaluated **Ti-Core Auto E** in 238 clinical applications. This product received a 91% clinical rating.

Suggested Retail Cost
• \$106.00/kit

Product Features

The automix feature of **Ti-Core Auto E** with the use of the intra-oral tips eliminates hand mixing and loading into a syringe tip, while allowing precise direct placement of the material. The viscosity of the material, which was rated as

DentalEZ® Silhouette® Chair + + + + ½

DentalEZ Group
866.383.4636
www.dentalez.com

Description

DentalEZ Silhouette Chair equipped with the **Galaxy Traditional-Style Delivery System** was evaluated. The following is a description of the chair features evaluated; however, this is not a complete list of the available options. Eleven consultants and their patients evaluated the **Silhouette Chair** over a six-month period. This equipment received a 92% clinical rating.

Silhouette Chair

- Split back chair with articulating head support
- Thin and narrow back
- Sling arm rests rotate up for entry and exit
- Four pre-set positions and manual controls for back and base height
- Airglide feature for easy floor positioning

Suggested Retail Cost
• \$6,350
• \$6,990 with Airglide



Consultants' Comments

- ▶ *"Arm rests were easy to move."*
- ▶ *"Thin backrest allowed plenty of leg room underneath the chair."*
- ▶ *"Controls were easy to program and operate."*
- ▶ *"Seamless upholstery is easy to clean."*
- ▶ *"Increase neck support."*

Equipment Features

The arm rests of the **Silhouette Chair** are easy for the clinician to operate, increasing the ease with which patients enter and exit the chair. The arm slings are excellent for larger patients but provide little support to small people, as their arms do not touch the slings. Patients were positive about the appearance of the chair, noting its seamless upholstery and sleek design. The chair is comfortable and provides constant lumbar support to most patients as it reclines. Few patients found the need to readjust themselves to establish proper lumbar support in the doctors working position. The articulating headrest provides very good head support. Additional neck support was requested by a few patients. The movement of the chair is smooth and readily accomplished using the pre-set and manual controls on the delivery system. ■



Consultants' Comments

- ▶ *"I like syringe dispensing – less waste."*
- ▶ *"No voids in the core when preparing."*
- ▶ *"Easy to use and dual curing makes it a sure thing."*
- ▶ *"Flows too easily – should be more viscous."*

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M. Livernois, FL
J. Lockwood, MI
M. Lodge, MI
M. Man, NY
B. Manne, FL
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D. Marsh, MI
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C. Rice, MA
J. Riggs, MI
R. Ritter, FL
J. Robison, MI
M. Rogers, PA

Clearfil PhotoCore PLT + + + + +

Kuraray America, Inc.
800.879.1676 • 212.986.2230
www.kuraraydental.com

Description

Clearfil PhotoCore PLT is a light-cured resin composite core material for vital and non-vital teeth. It is provided in individual pre-loaded tips (PLT) in either 0.3- or 0.5-g doses. The PLTs are color-coded by size: small is blue and large is orange. Both tips fit into conventional composite dispensers and have large openings for easier extrusion. **Clearfil PhotoCore PLT** can be used with all 5th-generation bonding agents and is also recommended for use with **Clearfil SE BOND**. The 8-mm depth of cure in a single increment is designed to facilitate quick core build-ups. The material is radiopaque and more translucent than conventional composites, allowing a greater depth of cure. The kit contains 30 extra-large tips (0.5 g), 50 regular tips (0.3 g) and instructions. Thirty consultants evaluated **Clearfil PhotoCore PLT** in 560 uses. This product received a 97% clinical rating.

Suggested Retail Cost
• \$175.00/kit

Product Features

The majority of consultants currently used a self- or dual-cured composite core material before evaluating **Clearfil PhotoCore PLT**. There was universal praise for the ease of use and dispensing of the composite. The material adapts



Consultants' Comments

- ▶ *"Very straightforward to use!"*
- ▶ *"Nice color-coding of the tips."*
- ▶ *"The consistency of the material makes it easy to manipulate."*
- ▶ *"Much easier than dual-cured materials for large core build-ups."*

well to the preparations and cured deeply. Since the composite is light-cured, it allows sufficient working time for larger and more complex preparations. Both sizes of pre-loaded tips were well received. There were many positive comments about the larger tip, as this allows an adequate amount of material for large molars. Cured core material is easy to prepare, as the hardness is similar to dentin. Consultants appreciated the minimal waste and the ability to use their conventional bonding agents. Ninety-six percent of consultants found it equivalent to or better than their current core material. Eighty-six percent of consultants would switch from their current core material to **Clearfil PhotoCore PLT** and 93% would recommend it to a colleague.

Clinical Tips

- Lubricate with water-soluble lubricant before fabrication of temporary.
- Lightly pack the material against walls and posts for proper adaptation. ■

Correction

In the June 2005 issue of THE DENTAL ADVISOR, Vol. 22, No. 5, information for **GingiBraid+** and **UniBraid+** was published incorrectly on page 4. In response, we are featuring portions of the tables and an updated product photo. We apologize for this error. ■



Tissue Retraction Products									
Product	Company	Active Ingredient	Cord	Pellet	Paste	Gel	Liquid	Cost	Features
GingiBraid+	DUX Dental/Van R	Plain	•					\$8.85/6 ft	Highly absorbent, no memory, holds integrity due to construction

Hemostasis and Tissue Retraction Combination Products									
Product	Company	Active Ingredient	Cord	Pellet	Paste	Gel	Liquid	Cost	Features
GingiBraid+	DUX Dental/Van R	Epinephrine alum or aluminum potassium sulfate	•					\$8.85/6 ft	Highly absorbent cord, no memory, holds integrity due to construction
UniBraid+	DUX Dental/Van R	Epinephrine alum or aluminum potassium sulfate	•					\$11.50/50 count pkg	Pre-cut 2" lengths of GingiBraid+ cord packaged individually, highly absorbent

Editors' Choice EQUIPMENT Elements Obturation Unit + + + + +

SybronEndo
800.346.3636 • 714.516.7979
www.SybronEndo.com

Description

The **Elements Obturation Unit** is a portable endodontic unit combining the System B heat source with a motorized extruder handpiece. It may be used for filling root canals using the "Continuous Wave of Condensation" or other warm gutta percha techniques. The compact unit consists of a tilting polarized liquid crystal display with icons that indicate which of the functions is active. The System B and extruder handpieces are held in **hangers** mounted on opposite sides of the display unit. The handpieces have **silicone-covered aluminum shields** that help maintain a comfortable temperature to grip. The shields may be removed and autoclaved. The System B handpiece accepts tips for down-packing, hot-pulp testing and cauterizing. Each function has pre-set temperatures and durations. Digital temperature readout of the System B plugger tip is continuously displayed. The five supplied plugger tips, sizes 0.04 to 0.12, fit the original System B. The cautery tip is not yet available. The extruder accepts disposable cartridges of gutta percha or **RealSeal**, a thermoplastic, polymeric obturation material that handles like gutta percha, yet flows at a lower temperature. Cartridge needles are bent at a 45° angle and are available with 20-, 23-, and 25-gauge tip diameters. Precise temperature control produces the correct viscosity for material delivery with the touch of a button. The extruder has two speeds and when extrusion is halted, the plunger retracts automatically to prevent excess material from being extruded. The **Elements Obturation Unit** was evaluated by eleven consultants and used in over 50 clinical cases. This equipment received a 96% clinical rating.

Suggested Retail Cost
• \$2,399

Equipment Features

The **Elements Obturation Unit** is well constructed and compact, taking up less counter space than two separate units would. The unit is easy to use and provides accurate, dense filling of root canals. The disposable gutta percha/**RealSeal** cartridges



Consultants' Comments

- ▶ *"The display is easy to read."*
- ▶ *"A very nice, quality fill."*
- ▶ *"It cuts the time to fill a tooth in half."*
- ▶ *"Easy to use on difficult patients."*
- ▶ *"On three occasions the plastic cap on the GP cartridge became lodged in the unit."*

are easy to load and heat quickly – 45 seconds or less. Tip diameters are adequate for all canals. Consultants found the small 25-gauge tips especially useful for filling narrow molar canals. The medium 23-gauge tips were the most popular size overall. Cartridges contain enough material to fill an average of 2-3 canals. The autoclavable aluminum shields are well insulated and durable after repeated sterilization. Handpiece temperatures remain comfortable to handle during use, and the plugger tips cool almost instantly, preventing accidental injury. The extruder handpiece is larger and heavier than the System B handpiece due to the integrated motor, but rests comfortably in the hand. A slight rotation of the wrist allows the operator to see the gauge that indicates the amount of obturation material remaining in the cartridge. One hundred percent of the consultants would recommend and switch to the **Elements Obturation Unit**.

Clinical Tips

- Pre-bend the plugger tip to conform to the curve of the canal.
- Do not bend or put heavy pressure on the tip of the obturation cartridge. It is constructed of a soft metal and can break or kink.
- Prime the obturation cartridge by expressing a small amount of material before taking it to the tooth.
- Obturation cartridges are intended for single-patient use.
- When using the hot pulp test tip, melt a large gutta percha cone onto the tip as a medium between the tip and the tooth. ■

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LABORATORY CONSULTANTS

- Alpha Dental Studio, MI
Nellmar Laboratory, LLC, MI

J. Morita USA/Tokuyama Dental Corp.
800.831.3222 • 949.581.9600
www.jmoritausa.com

Description

Estelite Sigma is a universal, visible light-cured composite resin for both anterior and posterior restorations. The composite is radiopaque with a filler volume of 71%. It is available in 18 Vita shades plus Cervical, White, and Opaque shades in either 3.8-g syringes or single-dose tips. The syringe set was evaluated and contains four, 2-ml syringes of A1, A2, A3, and A3.5. The manufacturer credits the sub-micron spherical filler for **Estelite Sigma's** chameleon-effect (the blending of a specific composite shade with several shades of natural teeth). Twenty-seven consultants used **Estelite Sigma** in over 525 restorations during a 3-month period. This product received a 94% clinical rating.

Suggested Retail Cost

- \$180.00/4, 3.8-g syringes
- \$ 69.00/20, 0.20-g Pre-Loaded Tips

Product Features

Estelite Sigma provides accurate shades that blend well with teeth. The creamy consistency is easy to handle and sculpts well. The composite possesses a good stacking quality, resistance to slumping and cavity adaptation. Shades are fairly translucent, which enhances blending. Use of one of the four opaque shades prevents shine-through of any underlying stained dentin. The composite is sensitive to ambient light; dimming of the operatory light during placement extends working time. **Estelite Sigma** flows well from the syringe at room temperature. Consultants found the cured shade to be true to the shade designation. Fifty-two percent of consultants would switch to **Estelite Sigma**, while 72% would recommend it to a colleague. ■



Consultants' Comments

- ▶ "Cures to an enamel-like finish."
- ▶ "Sculpts nicely."
- ▶ "One of the best composites I have ever tried."
- ▶ "I would like a little more packability for use in posterior restorations."
- ▶ "Shades match well."
- ▶ "Not too stiff, but stays where I put it."
- ▶ "Make all the shades in a flowable."

Upcoming Lecture Schedule

Shared Secrets:

Enhance Your Practice with Esthetic Dentistry's "Best Kept Secrets"

John W. Farah, D.D.S., Ph.D., Editor

7-Credit C.E. Course

Sept. 16, 2005

Utah Academy of General Dentistry – Sandy, UT

Dr. Kent Seal – 801.572.4430

Sept. 23, 2005

Western Colorado Dental Society – Grand Junction, CO

Dr. Mark Madison – 970.256.9500

Nov. 2, 2005

Greater Cleveland Dental Society – Cleveland, OH

Ms. Barbara Godley – 440.717.1891

Nov. 11, 2005

THE DENTAL ADVISOR: Empower Your Practice – Ann Arbor, MI

Ms. Laurie Lazorka – 734.665.2020

Invite Dr. Farah to be your next guest speaker!

For information on attending a lecture or scheduling Dr. Farah to speak to your dental group, please contact:

Ms. Laurie Lazorka at 734.665.2020 or 800.347.1330, laurie@dentaladvisor.com

www.dentaladvisor.com