

THE DENTAL ADVISOR™

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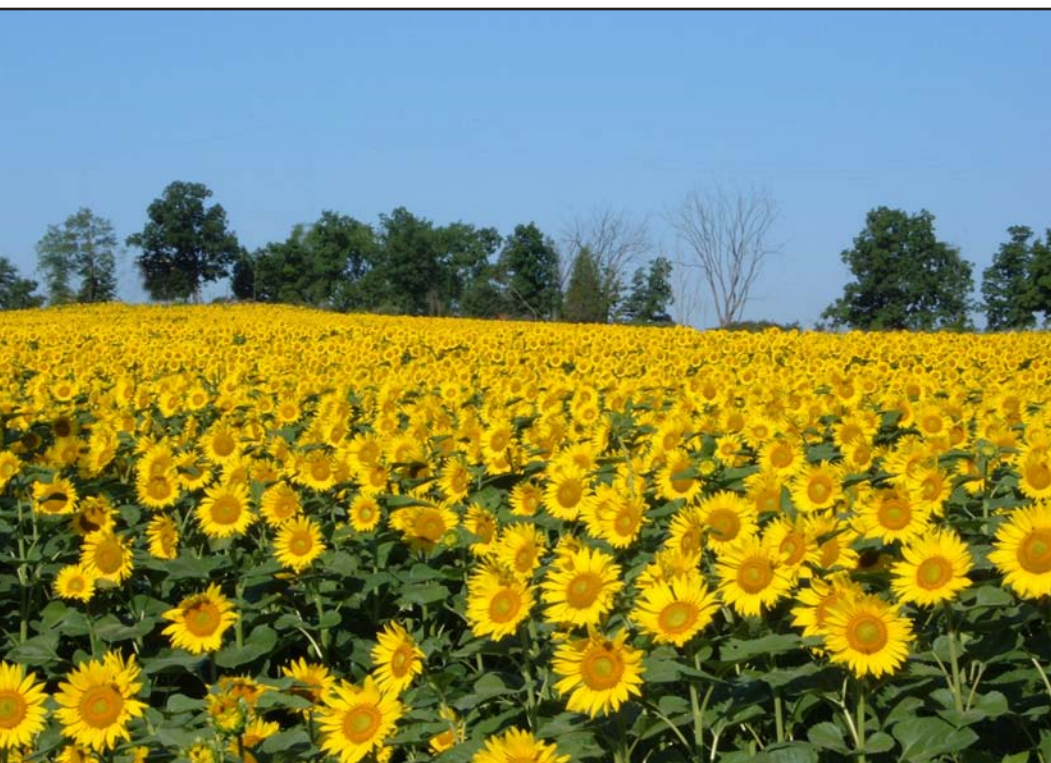
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Good	++



Photography by Heidi L. Graber

Glass Ionomers and Resin-modified Glass Ionomers

Glass ionomers have proven to be a useful adjunct to restorative dentistry. Since their introduction in the 1970s, numerous modifications have been made, making glass ionomers suitable for an array of modern-day clinical applications including luting agents, direct restoratives, liners, bases and many more. Their clinical versatility and unique advantages have made these materials an essential part of everyday dental practice.

This issue of THE DENTAL ADVISOR reviews the properties of glass ionomers and resin-modified glass ionomers. Indications for use and clinical tips are discussed.

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Glass Ionomers and Resin-modified Glass Ionomers

Glass Ionomers

Glass ionomers are fluoride-releasing, tooth-colored materials that chemically bond to enamel and dentin. The slow release of fluoride ions after placement makes this material ideal for use in patients with high caries risk. These materials possess unique properties that make them useful as adhesive and restorative materials: anticariogenic effect through release of fluoride, coefficient of thermal expansion similar to that of tooth structure, and biocompatibility.

Advantages: Inherent adhesion to tooth, minimal cavity preparation required, fluoride release, less shrinkage, good marginal seal, and hydrophilic properties.

Disadvantages: Soluble, low strength, low resistance to wear, brittle, water-sensitive during setting phase, less esthetic, handling.

The material is derived from an acid-base reaction between a basic glass powder (calcium fluoroaluminosilicate) and an acidic water-soluble polymer. During this hardening reaction, significant amounts of fluoride ions are released. Once fully set, glass ionomers have the property of being “rechargeable” in the presence of fluoride ions commonly found in toothpaste and other topical fluoride treatments.

Conventional glass ionomers have a high modulus of elasticity and low flexural strength, making the material brittle. Other limitations, especially when compared to resin composites, are their low strength and low resistance to wear. The main difference between glass ionomers and resin composites is that glass ionomers are hydrophilic and include water in their formulation. They can tolerate moisture and directly adhere to teeth by a chemical bond. Because glass ionomers set by an acid-base reaction, minimal shrinkage occurs.

What are the advantages of using glass ionomer restoratives over composites?

Glass ionomers have several distinct advantages over composites. One of the biggest advantages is fluoride release into the surrounding environment. This fluoride release has been shown to inhibit recurrent caries and is rechargeable. Another advantage of glass ionomer chemistry is the bond to tooth structure without the need for bonding agents, which also means that strict moisture control is not as critical. Glass ionomer restorative materials such as ***Ionofil Plus AC (VOCO America)*** can be used to restore Class III and Class V lesions and are especially helpful in caries-prone patients.

Resin-modified Glass Ionomers

A major advancement in glass ionomer technology was the addition of resin to the glass ionomer formulation. Resin-modified glass ionomers have increased strength and excellent handling properties; they harden rapidly when light cured. The addition of resin improved the esthetics compared to conventional glass ionomers; however, they are still somewhat opaque and not as esthetic as composite restorations.

Latest Advances: Nano-ionomers

The latest advance in resin-modified glass ionomers comes with the introduction of nanotechnology. Nano-ionomers were developed to combine the major benefits of glass ionomers (fluoride release) and nanotechnology (high initial polish, esthetics, and wear resistance). ***3M ESPE Ketac Nano Light-Curing Glass Ionomer Restorative*** is a light-cured, nano-ionomer in a paste/paste formulation. The new *Quick Mix Capsule* fits into any 3M ESPE Aplicap applicator or an applicator of similar design and provides instant mixing and dispensing of the material. This eliminates the need for hand mixing or trituration of the capsule. ***Ketac Nano restorative*** is indicated for restorations of primary teeth, small Class I restorations, Class III and V restorations, transitional restorations, laminate/ sandwich restorations, and small core buildups. It is available in shades A1, A2, A3, A3.5, B2 and a new A4 shade that is available in May. The *Quick Mix Capsule* has a working time of 2.5 minutes. A clinical evaluation is available at www.dentaladvisor.com.

Clinical Applications of Glass Ionomers and Resin-modified Glass Ionomers

Restorations in Primary Teeth

Minimal tooth preparation, bond to tooth structure, no need for strict moisture control, and high fluoride release and recharge make glass ionomers and resin-modified glass ionomers the material of choice for pediatric patients with caries on primary teeth.

Small Class I, Class V, Root Caries

Restorations that are not under heavy occlusal load and areas where esthetic considerations are of secondary concern can be restored with glass ionomers. Glass ionomers mimic tooth color but are not as esthetic as resin composites and show signs of wear faster. Glass ionomers are the material of choice for root-caries restorations, seen especially in geriatric patients with high caries risk.

Liners and Bases

Glass ionomers and resin-modified glass ionomers provide good pulpal response and minimize the chance of secondary caries while promoting the formation of secondary dentin.

Luting Agent

Indicated for metal or ceramo-metal crowns and bridges because they chemically bond to tooth structure and are cariostatic.

Core Build-ups

Glass ionomers have a similar coefficient of thermal expansion to tooth structure, release fluoride, and are self-adhering. They are not strong enough to support large core build-ups; therefore, it is recommended that there be at least 50% of coronal tooth structure remaining for support.

Pit & Fissure Sealant

Glass ionomers offer an alternative to resin sealants. They are most useful with hard to isolate deep fissures on primary molars.

Sandwich Technique

This technique combines the most favorable attributes of each material and refers to the use of glass ionomer as a dentin replacement and resin composite as an enamel replacement. Because the glass ionomer has a coefficient of thermal expansion similar to that of tooth structure, it can minimize microleakage at the ionomer-tooth interface. Desirable properties for composite include enamel bonding, surface finish and esthetics.

Glass Ionomers and Resin-modified Glass Ionomers

Glass Ionomer Restoratives (Self-Cure)					
Product	Company	Capsule/ Unit Dose	Powder/ Liquid	Shades	Clinical Rating
3M ESPE Ketac-Molar Aplicap	3M ESPE	Yes	No	5	88%
3M ESPE Ketac-Molar Quick	3M ESPE	Yes	No	4	91%
Argion AC	VOCO America	Yes	Yes	1	82%
GC Fuji IX GP	GC America	Yes	Yes	6	85%
GC Fuji IX GP EXTRA	GC America	Yes	Yes	8	93%
GC Fuji IX GP Fast	GC America	Yes	No	6	92%
GC Fuji Triage	GC America	Yes	Yes	2	88%
Ionofil Molar AC Quick	VOCO America	Yes	Yes	3	83%
Riva Self Cure HV	SDI (North America) Inc.	Yes	No	4	na

Resin-modified Glass Ionomer Restoratives (Light-Cure)					
Product	Company	Capsule/ Unit Dose	Powder/ Liquid	Shades	Clinical Rating
3M ESPE Ketac Nano	3M ESPE	Clicker	No	8	87%
3M ESPE Ketac Nano Light-Curing Glass Ionomer Restorative	3M ESPE	Yes	No	5	96%
3M ESPE Photac-Fil Quick Aplicap	3M ESPE	Yes	No	8	94%
GC Fuji Filling LC	GC America	Yes	No	6	83%
GC Fuji II LC	GC America	Yes	Yes	11	90%
Riva Light Cure	SDI (North America) Inc.	Yes	Yes	10	89%
Riva Light Cure HV	SDI (North America) Inc.	Yes	Yes	5	ce

Clinical Tips

- Do not place a bonding agent before placing a glass ionomer because it decreases fluoride uptake.
- Do not finish the restoration immediately after light curing. Wait a couple minutes to let the material set further.
- To avoid handling the sticky material, overfill the preparation, light cure it and then cut it back to proper form.
- To overcome the stickiness of glass ionomer, wait 30 seconds to handle after material is mixed.



Riva Self Cure HV [SDI (North America), Inc.]

Comparing Glass Ionomers (GI), Resin-modified Glass Ionomers (RMGI), and Resin Composites

- Fluoride Release and Rechargeability: GI > RMGI > Resin Composites
- Wear Resistance: Resin Composites > GI > RMGI
- Compressive Strength: Resin Composites > RMGI > GI
- Flexural Strength: Resin Composites > RMGI > GI
- Ease of Handling: Resin Composites > RMGI > GI
- Polishability and Esthetics: Resin Composites > RMGI > GI



Riva Light Cure HV [SDI (North America), Inc.]

Q Can I use a sandwich technique with a posterior composite restoration?

A The sandwich technique involves the use of glass ionomer (*GC Fuji II*, GC America) or resin-modified glass ionomer (*GC Fuji II LC*, GC America; *3M ESPE Vitrebond Plus Light Cure Glass Ionomer Liner/Base*, 3M ESPE) as a base with posterior composite restorations. Because the glass ionomer has a coefficient of thermal expansion similar to that of tooth structure, it can minimize microleakage at the ionomer-tooth interface. THE DENTAL ADVISOR recommends the sandwich technique for medium- and high-caries-risk patients.



GC Fuji IX GP EXTRA (GC America)



TDA Recommends The Following Products:

- Glass Ionomer: *GC Fuji IX GP EXTRA* (GC America)
- Resin-modified Glass Ionomer: *3M ESPE Ketac Nano Light-Curing Glass Ionomer Restorative* (3M ESPE)

Archtek Toothpaste Tablets + + + +

Archtek, Inc.
800.763.8129
www.archtekinc.com
www.toothpastetables.com

Request a Sample:
Visit www.dentaladvisor.com to request
a sample or more information!





Patients' Comments

- ◆ “Convenient, hygienic and portable – teeth feel great afterwards.”
- ◆ “Feels really clean on teeth. I love the convenience when traveling.”
- ◆ “Not as messy as other toothpastes and seems more sanitary.”
- ◆ “Forms chunks – they get stuck in my teeth.”
- ◆ “Mint taste is intense; texture is gritty.”
- ◆ “Make soft-chew rather than crunchy tablets to dissolve easier.”

reported they were equivalent. Twenty-nine percent would switch to Archtek Toothpaste Tablets and 59% would recommend the product. ■

Description

Archtek Toothpaste Tablets are chewable, unit-dose tablets to be used for regular tooth brushing instead of toothpaste. The tablets are easier for people with relevant physical limitations to use and are more sanitary than traditional tubes of toothpaste because there is no microbial transmission from the toothbrush swiping the end of the tube. The tablets are fluoride-free and contain xylitol and a cranberry extract to help reduce the formation of plaque. The 60-count bottle is available in a fresh mint flavor, and unlike toothpaste tubes, the package is totally recyclable. **Archtek Toothpaste Tablets** were used by 41 patients. The product received an 86% clinical rating.

Suggested Retail Cost
• \$4.99

Product Features

Patients liked the convenience of Archtek Toothpaste Tablets and reported that their teeth felt clean after use. The tablets are hard and crunchy and can leave some residue in the occlusal pits and fissures. Once the tablet is chewed, brushing activates the formation of a foam that is similar to brushing with toothpaste. Twenty percent of patients reported that Archtek Toothpaste Tablets were better than their current toothpaste and 26%

Moist SURE™ Foaming Soap + + + + ½

Sultan Healthcare
800.637.8582 - 201.871.1232
www.sultanhealthcare.com

Description

Moist SURE™ Foaming Soap is a product for washing hands before contact with patients under medical care or treatment. It meets the FDA proposed performance standards for a healthcare personnel hand wash and meets the CDC recommendations for mildness and user tolerance. It is dermatologist tested and hypoallergenic. The active ingredient is triclosan (0.75%). **Moist SURE Foaming Soap** has a 15-second MRSA and VRE claim and is claimed to be as effective as a 4% CHG product. It is available as a 15-ounce pump bottle. Manufacturer’s instructions are on the product label. **Moist SURE Foaming Soap** was used by 34 clinical consultants in 1566 uses. It received a 93% clinical rating.

Consultants' Comments

- ◆ “I liked the ease of dispensing, mild scent, and nice feel.”
- ◆ “The foam spreads easily - doesn’t drip, or get more foamy as you rub.”
- ◆ “I was able to put gloves on sooner and more easily after washing hands.”
- ◆ “It dried my hands more than a lotion soap.”

Suggested Retail Cost
• \$12.26 15oz Pump Bottle

Product Features

Moist SURE™ Foaming Soap is easy to dispense with a large pump that is easy to press. The foam is quick to spread over the hands and fingers and rinses easily. When hands are rinsed well and dried, a light scent remains with no impediment to donning

www.dentaladvisor.com



3M ESPE RelyX Unicem 2 Automix Self-Adhesive Resin Cement + + + + +

3M ESPE
800.634.2249
www.3mespe.com

Description

3M ESPE RelyX™ Unicem 2 Automix Self-Adhesive Resin Cement is a dual-cured, self-adhesive resin cement. It is indicated for final cementing of all-ceramic, composite, or metal inlays, onlays, crowns and bridges; two- to three-unit Maryland bridges and three-unit inlay/onlay bridges; final cementation of posts and screws; and final cementation of all-ceramic, composite, or metal restorations on implant abutments. **3M ESPE RelyX Unicem 2 Automix Cement** is available in automix syringes in three shades: A2 Universal, A3 Opaque and Translucent. **3M ESPE RelyX Unicem 2 Automix Cement** is based on the same chemistry as **RelyX Unicem Self-Adhesive Universal Resin Cement**. The improved formulation offers even more convenience due to its auto-mix delivery system. The kit includes one 8.5 g syringe (translucent, A2 Universal or A3 Opaque), 15 standard mixing tips, 5 wide mixing tips, 5 endo tips, manufacturer’s instructions, and a Technique Card. **3M ESPE RelyX Unicem 2 Automix Cement** was evaluated by 35 consultants in 1170 uses. It received a 96% rating.

Suggested Retail Cost
• \$130.00

Product Features

3M ESPE RelyX Unicem 2 Automix Cement is a versatile cement that is easy to dispense and use. Consultants appreciated the many advantages offered by room temperature storage. The dual-barrel syringe accepts short mixing tips that minimize waste and dispense the cement directly into the restoration. Angled intraoral tips or endo tips may be attached to the mixer for placement of the cement into the prepared tooth. These tips are especially useful for cementation of inlays/onlays and posts. The shades provided are acceptable for most clinical situations. Compared to the original **RelyX Unicem** packaged in capsules, this new material is less viscous, allowing easier seating of restorations. A very brief (1-2 second) tack cure from the facial and lingual surfaces allows for



Consultants' Comments

- ◆ “My favorite features were ease of use, consistent mixing, and less assistant time.”
- ◆ “Easy to dispense and clean up.”
- ◆ “Variety of tips is helpful.”
- ◆ “Convenient storage - no refrigeration required.”
- ◆ “Little or no sensitivity during the cementation procedure.”
- ◆ “Hard to clean up after final setting.”

easy clean-up of excess cement. Several consultants commented on the lack of sensitivity observed with this cement. Seventy-four percent of consultants reported that **3M ESPE RelyX Unicem 2 Automix Cement** was better than their current self-adhesive resin cement, whereas 26% reported it was equivalent. Ninety-four percent would switch to and recommend **3M ESPE RelyX Unicem 2 Automix Cement**.

Clinical Tip

- Make sure to clean up the cement after initial tack cure; otherwise, it is very hard to clean.

Editors' Note: 3M ESPE RelyX™ Unicem 2 Clicker Self-Adhesive Resin Cement will be launched in the US in May 2011. It is the new generation of RelyX Unicem now also in the Clicker delivery for dentists that prefer to handmix or to save waste in automix syringe tips or simply prefer to buy more applications in one delivery piece. The indications for use, as well as the shades available are the same as RelyX Unicem 2 Automix. ■

Moist SURE™ Foaming Soap + + + + ½

gloves. Seventy-one percent of consultants reported that **Moist SURE Foaming Soap** was better than their current soap and 24% reported it was equivalent. Seventy-one percent would switch to **Moist SURE Foaming Soap** and 85% would recommend it.

Clinical Tip

- Rinse your hands well as should be done with any hand soap; otherwise, a sticky residue is left. ■

SciCan
800.572.1211 - U.S.
800.667.7733 - Canada
www.scican.com

Request More Information:
Visit www.dentaladvisor.com to request
more information!



Description

STATIS is a line of air-driven handpieces available in two head sizes. These high-speed handpieces have a 25,000 LUX illumination, an innovative spray system, and a push-button chuck mechanism. They can be sterilized to 135°C. The short head sizes enhance access in the oral cavity. These handpieces include a technologically advanced cage material, which houses the ceramic bearings, lowering friction and extending bearing longevity. **STATIS** utilizes the “MULTIflex-style” *Connex* quick connect system to provide greater compatibility by fitting most modern treatment units. **STATIS** handpieces are designed to have better handling and quiet operation with increased lateral cutting torque. The **STATIS ML** has four jets for optimum cooling of the bur and tooth, and the smaller **STATIS SL** comes with a slotted nozzle to cool the entire treatment region with a fan-shaped spray. **STATIS** handpieces are backed by *SciCan’s* 48-hour quick repair service and a three-year warranty. **STATIS** handpieces were evaluated by seven consultants in daily use during a three-month period. **STATIS** handpieces received a 96% rating.

Suggested Retail Cost

- \$1340.00

Clinical Observations

Balance/Ergonomics

Consultants rated balance and ergonomics as very good. The handpiece had a good feel in the operators’ hands. A light texture on the smooth surface allows the dentist to maintain a positive grip, even with wet gloves.

Torque Output (Power)/Quietness during Operation/Lack of Vibration

STATIS handpieces are lightweight and run smoothly and quietly with very good torque. Routine procedures, including crown preparation were performed efficiently without the handpieces slowing or stalling. Consultants rated quietness as excellent.

Connection to Coupler/Chuck Strength

Connection to the coupler is a quick snap-on/pull-off. The push-button chuck is easy to press, and the chuck holds the bur tightly for concentric operation.

Head size (Accessibility/Visibility)

Consultants rated the accessibility and visibility of the head as very good. In cases of difficult access, the smaller head of the **STATIS SL** was a great option.

Quality of Air/Water Spray

The four ports provide water and air that has sufficient force to



Consultants’ Comments

- ♦ “*I liked the light weight, balance and small head size.*”
- ♦ “*Great all-around handpieces.*”
- ♦ “*Very good torque.*”
- ♦ “*Super warranty!*”
- ♦ “*Water spray would sometimes decrease during use.*”

cool the bur and clear debris from the working area. **STATIS SL** (small head) has only a single, slot-shaped port. This port provides moderate output, and some consultants reported inconsistency in the water spray; the spray would decrease during use.

Quality of Illumination

Illumination is bright and well focused and did not degrade during the three-month evaluation period.

Ease of Cleaning/Sterilization

Consultants rated ease of cleaning and sterilization as excellent. Most consultants used an automatic maintenance machine in which the handpiece snapped onto a coupler for lubricating/purging. The smooth surface of the handpiece wipes clean with no grooves to trap debris.

Durability

No malfunctions of the handpieces were noted during the three-month evaluation period. Consultants appreciated the three-year warranty. If a repair were necessary, the mailing pouch was included in the box, along with the 48-hour turnaround of the repaired handpiece. This service was viewed as outstanding.

Summary

The **STATIS ML** is the handpiece of choice for crown preparation, as it produces high torque with FOUR-port water spray. Other than some inconsistency in the water spray, the handpieces performed flawlessly during the evaluation. Fifty percent of consultants reported that **STATIS** handpieces were better than their current handpiece. Seventy-five percent would switch to **STATIS** handpieces and 100% would recommend them. ■

Cosmedent, Inc.
800-621-6729
www.cosmedent.com

Description

CosmeCore is a dual-cured, radiopaque, resin material indicated for core build-ups. According to the manufacturer, it cuts like dentin, preps like tooth structure, has excellent flowability and high compressive strength, and has adequate working time for cases with multiple posts. Layers of 7 mm can be light cured in 40 seconds, while self curing takes places in deeper areas. **CosmeCore** is available in a natural A2 shade plus White and Blue colors. Each 50 g, dual-barrel cartridge, which fits standard dispensing guns, comes with 20 mixing tips and 20 curved intra-oral tips. **CosmeCore** was evaluated by 30 consultants in 500 uses. The product received a 91% clinical rating.

Suggested Retail Cost

- \$184.95 Includes 50 gram cartridge, 15 mixing tips and 15 intraoral tips
- \$68.25 Gun
- \$207.35 Includes cartridge and gun

Product Features

CosmeCore is easy to dispense and adapts well to prepared teeth.

Life-Like Cosmetic Solutions
800.LIFE-LIKE - 800.543.3545
www.life-like.com

Description

Life-Like In-Office Whitening Kit in-office whitening system is designed to be easy to use and less expensive than other comparable systems. **Life-Like In-Office Whitening Kit** uses 35% hydrogen peroxide and a chemical activator. No light is used with this system, which has the potential to decrease both post-operative sensitivity and the possibility of pulpal damage associated with heat-generating light systems. The kit contains 4 ml of 35% hydrogen peroxide in a *Twist & Seal Syringe*; applicator brushes; 0.8 ml of #9 *Enhancer* - chemical activator; a 2 g syringe of dental dam; vitamin E tablets; and manufacturer’s instructions/MSDS. **Life-Like In-Office Whitening Kit** was evaluated by five consultants in 14 whitening procedures. It received an 82% rating.

Suggested Retail Cost

- \$60.00

Product Features

Consultants found **Life-Like In-Office Whitening Kit** simple to apply with moderate effectiveness. Measuring and dispensing

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Consultants’ Comments

- ♦ “*It was easy to dispense and had good working and setting times.*”
- ♦ “*It is a good, hard material that cuts nicely.*”
- ♦ “*The material flowed nicely and seemed to adapt very well to the preparation.*”
- ♦ “*I prefer a handheld automix syringe.*”
- ♦ “*Instructions regarding bonding are confusing.*”

The material has a gel-like consistency with adequate flow and resistance to slumping. The working time allows placement before self-curing starts and setting time is mainly determined by light curing. The A2 shade is useful for esthetic cases, while the colored material provides distinct visibility where needed. The material cut easily and smoothly. Some consultants prefer a dual-barrel syringe mixing system rather than the dual-barrel cartridge system. Thirty-three percent of consultants reported that **CosmeCore** was better than their current composite core material and 50% reported that it was equivalent. Sixty percent would switch to **CosmeCore** and 87% would recommend it.

Clinical Tips

- Work quickly and avoid ambient light.
- Use a core former to speed up placement in badly broken down teeth. ■

Consultants’ Comments

- ♦ “*The directions were easy to read and follow. Product worked well for a non-light system.*”
- ♦ “*I like that desensitizing solution is included in the kit.*”
- ♦ “*I saw results in one visit.*”
- ♦ “*I would prefer a dual-barrel dispenser over hand mixing.*”
- ♦ “*Easy to apply and remove and little to no sensitivity.*”
- ♦ “*Make sure the dam is securely attached.*”
- ♦ “*Not a bad material, but handling can be improved.*”

the peroxide and activator from their syringes into a dappen dish and hand mixing with a brush were considered time consuming. Consultants preferred a faster treatment option for the patient than the recommended four 10-minute rounds. Queries of patients regarding sensitivity received mixed results, as 77% of patients reported some discomfort during treatment. Eighty-six percent of patients reported that the appearance of their teeth improved. Forty percent of consultants reported that **Life-Like In-Office Whitening Kit** was equivalent to their current in-office whitening system and 20% would recommend it.

Clinical Tip

- Make sure the dam is securely adhered. ■

Kerr Corporation
800.537.7123 - 714.516.7400
www.kerrdental.com

Description

The *Demi Plus Light Curing System* is a visible LED light-curing unit intended for polymerization of light-cured materials. It is powered by *Demetron Technology* and has a high-performance thermoplastic polyester resin exterior. The *Demi Plus* is cordless and designed to be lightweight, yet durable, chemical resistant, impact resistant, and able to withstand extreme temperatures. The *Demi Plus* employs *PLS Technology* (periodic level shifting), which shifts the output intensity from 1,100 mW/cm² to a peak of 1,330 mW/cm² multiple times throughout the curing cycle. *PLS Technology* drives cool, continuous high output for a true five-second cure without generating excess heat. The 8 mm *Extended Turbo Light Guide*, which is included, improves access for posterior procedures; seven other light guides are available for purchase. The light has a life of 300 full charge/recharge cycles. A fully charged battery will yield 500, five-second cures. Recommended curing times are: universal composite shades A3 and lighter (2 mm depth) - five seconds; shades A3.5 and darker - 10 seconds; bonding agents, universal luting cements and self-etch, self-adhesive cements - five seconds. The *Demi Plus LED Light Curing System* comes with a three-year warranty. The kit contains: 120v *Demi Plus* LED handpiece, 8 mm *Turbo Extended Light Guide*, lithium ion battery pack, battery charger, power supply, two protective light shields, manufacturer’s instructions, and product care tips. *Demi Plus LED Light Curing System* was evaluated by 11 consultants in 570 uses. It received a 96% rating.

Suggested Retail Cost
• \$1490 /unit

Clinical Observations

Manufacturer’s Instructions
The manufacturer’s instructions were rated as good.

Handpiece Design and Ergonomics
This light is an ergonomic hybrid between a pen-style and a pistol-grip light. The slight angle in the handle allows a comfortable position to grasp the light and trigger the on/off button. Consultants liked the feel and grip of the handpiece. The buttons for the timer and the on/off switch are positioned close together, and it is possible to push the wrong one.

Ease of Use/Ease of Access in the Mouth
Ease of use and ease of access to the mouth were rated very good. The longer tip makes it easier to reach posterior teeth. The light guide rotates 180° for positioning from any angle.

Consultants’ Comments

- ♦ “Easy to use, multiple curing capabilities, intense light, solid charging station.”
- ♦ “Ease of use in the mouth because of the size and rotation of the light.”
- ♦ “I liked longer tip – easier to reach posterior teeth.”
- ♦ “Beeps are too loud.”
- ♦ “The buttons for the timer and the on/off switch are so close that it is easy to push the wrong one.”
- ♦ “Have an option for no sound.”

Ability to Cure Materials
Consultants rated the ability to cure a variety of materials as excellent.

Patient Comfort
Patient comfort was rated very good with no reports of excessive heat.

Noise Level
Nearly all of the consultants reported that the audible tones every five seconds were too loud. An option for a volume control was suggested.

Docking Station /Battery Life
Most consultants docked the light in the charging station between uses, and the battery never became fully discharged. The station contains two sockets for charging, and the light is stable when docked. Consultants rated the time required to charge the battery and the battery life as excellent.

Ease of Cleaning/Disinfection
Ease of cleaning and disinfection were rated very good to excellent. The manufacturer recommends disinfection by wiping with a product containing less than 20% alcohol.

Discus Dental
800.422.9448 - 310.845.8200
www.discusdental.com
www.transcendentist.com

Description

Transcendentist Reusable Sterilization Pouches and Wraps are made from a patented microfiber fabric that is reusable and designed to allow the penetration of steam and heat ensuring successful sterilization while providing an effective barrier to microbial penetration and maintaining the sterility of the processed items after sterilization. The fabric helps prevent loose instruments from poking through the pouch making them safer for the dental staff. *Transcendentist Reusable Sterilization Pouches and Wraps* are used the same way as disposable plastic pouches, for both loose instruments and cassettes, only these are reusable 75 times. A 75-box grid is stamped on the outside of each pouch. A permanent marker is used to check a grid box before each sterilization cycle to keep track of the number of uses. A sterilization indicator strip can be placed in each pouch or wrap before sterilization. The product is supplied as: 3 x 8 sterilization pouch, 5 x 10 sterilization pouch, 7 x 10 sterilization pouch, 11x14 sterilization pouch and a 18x15 sterilization wrap. *Transcendentist Reusable Sterilization Pouches and Wraps* were evaluated by 31 consultants in 1047 uses. It received an 82% rating.

Suggested Retail Cost

- \$72.00/12-count package of 3x8 sterilization pouches
- \$96.00/12-count package of 5x10 sterilization pouches
- \$108.00/12-count package of 7x10 sterilization pouches
- \$144.00/12-count package of 11x14 sterilization pouches
- \$72.00/12-count package of 18x15 sterilization wraps

Product Features

The most favorable feature of *Transcendentist Reusable Sterilization Pouches and Wraps* is fabric that helps prevent instruments from poking through. Despite the tough fabric, instruments dry quickly inside the pouches and wraps. Consultants liked the concept of a reusable pouch but did not like the opaque fabric that prevented seeing the contents. Being unable to see the internal indicator strip was inconvenient. *Transcendentist*

Consultants’ Comments

- ♦ “Instruments dried easily in these pouches after autoclaving.”
- ♦ “The microfiber material prevented instruments from poking through.”
- ♦ “I love the idea of a reusable pouch, and there were plenty of sizes available.”
- ♦ “You cannot see through the pouch, so you have to wait until ready to use to open the pack to check the indicator strip for sterility.”
- ♦ “The packaging changed color and appeared stained – I am not comfortable opening in front of patients.”
- ♦ “They were a little harder to integrate into the practice than I expected.”
- ♦ “Make a clear window in pouch so you can see what contents are inside. Place sterility indicator strips on the outside of the pack so you don’t have to open up the pouch to check for complete processing.”
- ♦ “Provide color-coded pouches to indicate contents.”

Reusable Sterilization Pouches and Wraps do not have a self-closure mechanism and relies on sterilization tape to secure the wraps and pouches. Adhesive residue from the tape over time can stain the surface of the pouches. Fifty-one percent of consultants reported that *Transcendentist Reusable Sterilization Pouches and Wraps* were the same or better than their current sterilization pouches and wraps. Nineteen percent would switch to *Transcendentist Reusable Sterilization Pouches and Wraps* and 48% would recommend them.

Clinical Tips

- Order several pouches of each size and pre-label each pouch with a permanent marker.
- If pouches become contaminated with blood or debris, wash in hot water with regular laundry soap. Do not use fabric softener or drier sheets.
- Once you have used the pouches/wraps 75+ times, *Discus Dental* recommends donating the pouches or wraps to a local animal shelter or SPCA so they can reuse the fabric. ■

Clinical Tips

- Charge the light for 16 hours before first-time use.
- Place the head of the light on a 90-degree angle to the surface being cured to insure a full cure. ■

Premier Dental Products Co.
888.670.6100 - 610.239.6000
www.premusa.com

Description

2pro Total Access Disposable Prophyl Angles are latex-free and feature a patented dual-action cup and tip design for access to all tooth surfaces. The prophyl cup is indicated for all tooth surfaces, and once removed, the tip is exposed and can be used for gingival and proximal areas, occlusal surfaces, veneer margins, and around implants and orthodontic brackets. **2pro Total Access Disposable Prophyl Angles** have a gearless design for nearly zero freeze-ups and less heat build-up and have a 100° angle to allow access to all areas of the mouth. **2pro Total Access Disposable Prophyl Angles** are available in four color-coded styles: Soft/Short Cup, purple cup; Firm/Short Cup, blue cup; Soft/Long Cup, white cup; and Firm/Long Cup, green cup in an assortment of colorful angles in a 144-count bag. **2pro Total Access Disposable Prophyl Angles** were evaluated by 37 consultants in 1839 uses. It received a 91% clinical rating.

Suggested Retail Cost

- \$83.20/144-count bag

Product Features

The dual-action cup and tip design is the most unique feature of **2pro Total Access Disposable Prophyl Angles** and was rated highly for convenience. Most hygienists used the cup for the entire prophyl and then removed it to expose the tip and use where needed. Consultants liked the design of the prophyl cup and tip, the ease of removal, and the choice of size and firmness. The soft,

Consultants' Comments

- ◆ *"These angles run extremely smoothly for a disposable item – no vibration."*
- ◆ *"Angulation is great for access in posterior areas."*
- ◆ *"I loved the tip design - perfect for areas with furcation involvement, bridge abutments, and implants."*
- ◆ *"It was nice to have four styles to choose from – they allowed easy access depending on the size of the patients mouth and teeth."*
- ◆ *"The soft ones were a bit too soft."*
- ◆ *"The soft, short cup was more useful than the long-cup."*

short cup was the most popular style for routine use. As with many prophyl cups, the design could be improved to reduce splatter. The flexibility/adaptation and durability of the cup rated highly, as did the ability to access difficult or tight areas of the mouth due to the ergonomic 100° angle design. Fifty-one percent of consultants reported that **2pro Total Access Disposable Prophyl Angles** were better than their current disposable prophyl angles and 32% reported they were equivalent. Seventy-six percent would switch to **2pro Total Access Disposable Prophyl Angles** and 81% would recommend them to a colleague.

Clinical Tips

- Polish with the cup first; then remove and use the tip.
- Use when finishing composites to clean up at the gumline. ■

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