

THE DENTAL ADVISORTM

"Improved Patient Care Through Research"



Photography by John W. Farrah, D.D.S., Ph.D., Ann Arbor, Michigan

Adhesive Resin Cements

Adhesive resin cements are based on acrylic or diacrylate resins with adhesive monomers that bond well to metal substrates. Adhesive resin cements may require a separate primer for bonding to ceramic, metal or tooth substrates. Delivery systems include: auto-dispensed syringes, auto-mixed syringes, capsules, paste-paste systems, and powder-liquid systems. Typically, adhesive resin cements are available in limited shades. These cements are recommended for most ceramic and metal restorations except veneers, indirect resin restorations and implant-supported crowns and bridges.

This issue of THE DENTAL ADVISOR discusses and recommends 11 adhesive resin cements and gives clinical tips for using these cements.

2005

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ADHESIVE RESIN CEMENTS 2

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(Adhesive resin cement)

Clearfil S³ Bond 14
(Bonding agent)

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EDITORS' CHOICE

Clearfil S³ Bond 14
(Bonding agent)

OptraGate 16
(Retraction device)

EDITORIAL

THE DENTAL ADVISOR Vision 4

Ratings

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

Clinical Tips

- Don't overdry the tooth – moisten with water if needed.
- Follow manufacturer's recommendations for etching, bonding and cementation.
- Some cements (**EMBRACE WetBond Universal Resin Cement, Panavia 21, Panavia F 2.0**) require a gel barrier for complete setting.
- Automixed capsules (**3M ESPE RelyX Unicem Self-Adhesive System**) and automixed syringes (**EMBRACE WetBond Universal Resin Cement, Multilink**) save operator time.
- Use a silane primer with all-ceramic restorations.
- Use light activation whenever possible – dual-cured cements typically have increased flexural strength and bond strength when activated with a light vs. self-curing.

Compatibility

Dual- and self-cured adhesive resin cements are usually not compatible with 6th- and 7th-generation bonding agents, because these self-etching bonding agents contain acidic primers that interact with the self-cured chemistry of the resin cement. Follow manufacturers' recommendations when bonding resin cements to tooth structure.

Survey of Clinical Consultants

Over 100 of our clinical consultants replied to a survey on adhesive resin cements. The results of that survey are shown below.

Preferred Adhesive Resin Cements

- **Panavia 21**
- **C&B Meta-Bond**
- **Panavia F 2.0**

Preferred Self-adhesive Resin Cements

- **3M ESPE RelyX Unicem Self-Adhesive System**
- **Maxcem**

Dispensing System Preferred by Clinical Consultants

Auto-mix (dual-barreled syringe, mixing tip, intra-oral delivery tip) 54%
Auto-dispense (dual-barreled syringe and hand-mix) 21%
Hand-mix (paste-paste, powder-liquid) 8%
No preference 17%

Number of Shades Available

4 shades 32%
3 shades 29%

Ideal Adhesive Resin Cement Shades

A2.....15%
Universal.....12%
Opaque.....12%
Translucent.....12%

Preferred Accessories

Silane 54%
Alloy primer 38%

Summary: Clinical consultants preferred 3 or 4 shades available with most specifying A2, universal, opaque and translucent shades. Many consultants wanted silane and alloy primer provided in the kit. ■

Cements Preferred For Specific Procedures

Type of Procedure	Adhesive Resin	Self-adhesive Resin	Traditional C&B
All-ceramic inlays, onlays	62%	30%	6%
All-ceramic crowns, bridges	52%	39%	9%
Cast alloy crowns, bridges	15%	18%	67%
High-strength ceramic restorations	33%	43%	24%
Implant-supported crowns, bridges	13%	16%	71%
Laboratory composite	66%	29%	5%
Maryland bridges	77%	18%	5%
PFM crowns, bridges	14%	23%	63%
Metal posts	40%	29%	31%
Esthetic posts	55%	35%	10%

Summary: Clinical consultants preferred adhesive resin cements for many of the procedures listed above.

Frequency of Adverse Outcomes

	Adhesive Resin	Self-adhesive Resin	Traditional C&B
Frequency of Sensitivity			
Often/Sometimes	14%	10%	16%
Occasionally/Never	84%	84%	82%
Not Applicable	2%	6%	2%
Frequency of Microleakage			
Often/Sometimes	8%	8%	14%
Occasionally/Never	84%	84%	80%
Not Applicable	8%	8%	6%

Summary: Clinical consultants rarely observed sensitivity or microleakage with adhesive and self-adhesive resin cements.

THE DENTAL ADVISOR Recommends:

Multilink Automix (97%), Panavia F 2.0 (97%), 3M ESPE RelyX Unicem Self-Adhesive System (96%), Cement-It Universal C&B (96%), Panavia 21 (96%)



97%

Multilink Automix
(Ivoclar Vivadent)



97%

Panavia F 2.0
(Kuraray America)



96%

3M ESPE RelyX Unicem Self-Adhesive System
(3M ESPE)



96%

Cement-It Universal C&B
(Pentron Clinical Technologies)



In April 2005, **Dental Consultants, Inc.**, publisher of **THE DENTAL ADVISOR**, began construction of a new state-of-the-art facility. This new building will include **THE DENTAL ADVISOR Biomaterials Research Center** and **THE DENTAL ADVISOR Education Center**. It will also become home to the administrative offices of **THE DENTAL ADVISOR**. Our clinical testing area and dental laboratory will remain next door in the existing building.

John M. Powers, Ph.D., previously Director, Houston Biomaterials Research Center, University of Texas Dental Branch at Houston, will head **THE DENTAL ADVISOR Biomaterials Research Center**. Dr. Powers, along with a staff

of talented research associates, will customize research projects to fit the specific needs of manufacturers and provide them with data in a timely manner. This world-class facility will help maintain **THE DENTAL ADVISOR** as a strong scientific research publication.

THE DENTAL ADVISOR Education Center will provide dental professionals from around the world with opportunities to expand their knowledge and obtain continuing education credit through lecture-based and hands-on courses. The facility will also be available to professional groups and dental manufacturers for regional meetings and seminars.

Our multifaceted facility will increase our ability to combine clinical data with laboratory research in order to better educate the dental profession about which new products and equipment to use. The future looks bright as we continue the mission of **THE DENTAL ADVISOR** – “*Improved Patient Care Through Research.*”

We will update our readers on the progress of our construction project. Whether you are a dental professional or manufacturer, you are invited to submit your questions or suggestions to: info@dentaladvisor.com. ■

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JOHN W. FARAH, DDS, PhD
Twenty-two Years of
All-ceramic Restorations

JOHN O. BURGESS, DDS, MS
Dental Cements – Status in 2005

JOHN M. POWERS, PhD
Technique Sensitivity –
The Last Challenge in
Bonding to Tooth Structure?

FREDERICK A. RUEGGERBERG, DDS, MS
The Clinician's Guide
to Curing Lights

CHARLES McLAREN, DDS, MS
JOHN McLAREN, DDS, MS
Direct Placement Composites

PETER YAMAN, DDS, MS
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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!

Venus/iBond + + + + +

Heraeus Kulzer, Inc.
800.431.1785 • 914.273.8600
www.heraeus-kulzer-us.com

Description – Venus

Venus is a radiopaque, microhybrid composite for universal restorative use. It is available in 27 shades for optional layering techniques. The composite is a mixture of BIS-GMA and TEGDMA filled 61% by volume with barium aluminum fluoride glass (0.7-2 microns) and highly-dispersed silicon dioxide (0.01-0.04 µm). It has a camphorquinone photoinitiator, making it compatible with halogen, plasma-arc and light-emitting diode (LED) curing lights. The Master's Kit is a comprehensive esthetic kit including 27 shades of **Venus** in unit-dose capsules. **Venus** is also available in a basic kit with five shades or individual refills of 4-g syringes or 0.25-g capsules. Post operative sensitivity received a 96% clinical rating.

Suggested Retail Cost

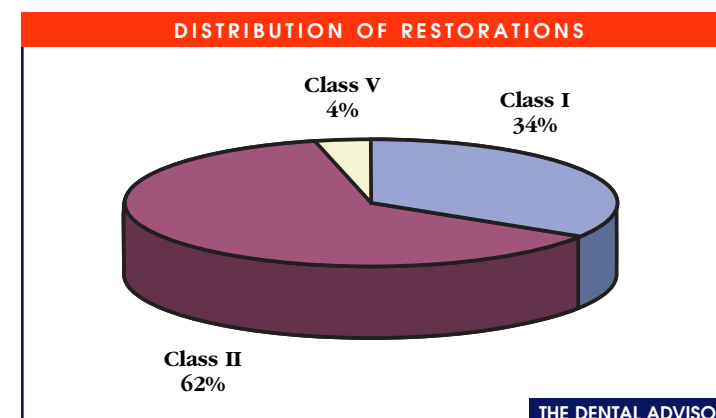
- \$844.76/Master's Kit

Description – iBond

iBond is a 7th-generation, one-step (no-mix), self-etching bonding agent. It is indicated for use with direct and indirect restorations and can be used with light- or dual-cured resin cements. It may also be used as a cavity sealer under amalgam restorations. It requires no mixing, no separate etching or dentin priming and no rinsing. **iBond** contains glutaraldehyde, the active ingredient in *Gluma Desensitizer*. **iBond** is compatible with halogen, LED and plasma-arc lights. It contains an acetone/water solvent and requires an application of three successive coats, followed by a 30-second wait before fully volatilizing the solvent with a gentle stream of air. Light-curing time is 20 seconds. **iBond** is available in a 4-ml bottle or in 0.2-ml single-dose units.

Suggested Retail Cost

- \$100.00/4-ml bottle kit
- \$130.00/single-dose kit



SENSITIVITY STUDY



Sensitivity Ratings

- ▶ 5 = excellent – no sensitivity
- ▶ 4 = very good – slight sensitivity
- ▶ 3 = good – mild sensitivity
- ▶ 2 = fair – moderate sensitivity
- ▶ 1 = poor – severe sensitivity

Clinical Evaluation Protocol

- 80 posterior teeth in 52 patients were restored with **Venus** restorations bonded with **iBond**.
- No liner, base or flowable composite was used under the restorative material.
- Restorations were evaluated for post-operative sensitivity at 7-10 days.
- Restorations were evaluated for post-operative sensitivity at 1 year.
- Sensitivity was rated on a 1-5 scale.

Clinical Observations

Sensitivity at 7-10 days

At 7-10 days after placement, patients were asked to rate the sensitivity associated with their restorations. Of the 80 restorations in this group, only one was reported to be sensitive – a Class II premolar restoration that received a sensitivity rating of two. Virtually no sensitivity was noted in the group of **Venus** restorations bonded with **iBond**.

Sensitivity at one year

Seventy-two of the original 80 restorations were available for recall at one year. All restorations were intact. Patients were again asked to rate the sensitivity of the teeth involved. No sensitivity was reported in any of the restorations. Overall, patients were pleased with the comfort of their restorations, and consultants found **Venus/iBond** to perform successfully.

Conclusion

Eighty posterior restorations were placed using **Venus** and **iBond**. At one-year post-placement, 90% of the restorations were available for recall. Patients were asked to rate the comfort of their restorations according to THE DENTAL ADVISOR rating scale and no sensitivity was noted at one year. **Venus/iBond** has proven to be successful in terms of durability and lack of sensitivity to date. ■

Multilink Automix + + + + +

Ivoclar Vivadent
800.533.6825 • 716.691.2285
www.ivoclarvivadent.us.com

Description

Multilink Automix is a dual-cured, multipurpose resin-based dental cement with a self-curing and self-etching primer. Suggested applications for **Multilink** include cementation of indirect restorations made of metal, metal-ceramic, all-ceramic (zirconia and aluminum oxide), and fiber-reinforced composite. The use of a metal primer is recommended as a coupling agent to achieve a stronger bond to sandblasted precious and non-precious alloys. **Multilink** is available in three shades with different degrees of translucency: transparent (high translucency), yellow (high translucency), and opaque (low translucency). The System Pack includes a 9-g **Multilink Automix** syringe, **Multilink Primer A & B**,



EDITORS' EVALUATION

Editors' Comments

- ▶ "Cement is very easy to use."
- ▶ "The viscosity of the cement is low enough to allow easy seating of restorations."
- ▶ "Transparent shade blends well with ceramic inlays."
- ▶ "Provide an angled intraoral tip for placement of cement directly into post or inlay preparations."
- ▶ "Provide more mixing tips."
- ▶ "Include silane in the kit."

Metal Primer, 15 mixing tips, and accessories. Fourteen editors evaluated **Multilink** during a four-week period, cementing over 110 restorations. This product received a 97% rating.

Suggested Retail Cost
• \$265.00/System Pack

Editors' Observations

Manufacturer's Instructions
Consultants found the instructions very clear and concise. An illustrated guide allows quick chair-side reference of step-by-step procedures with **Multilink**.

Delivery System/Viscosity
Many of the consultants commented on the convenience of the auto-mix syringe and the consistent mix with each use. The mixing tip allows for controlled flow of the cement into the restoration. The mixing tip is a little too wide to extrude cement directly into some post spaces; however, the cement easily coats all surfaces of the restoration and allows for easy seating.

Working Time/Setting Time
One hundred percent of consultants found there was adequate working time. Use of the primer accelerates the setting of **Multilink**, which affects

placing cement directly into a canal or inlay preparation. Consultants commented favorably on the dual-cured capability.

Ease of Excess Removal
All of the consultants found that excess cement was easy to remove. A 10-second "flash" cure at the margins also allows fast and easy clean-up.

Post-operative Sensitivity/Retention
None of the 110 restorations cemented with **Multilink** debonded during the four-month evaluation period. There were no reports of post-operative sensitivity.

Clinical Tip
• Store the auto-mix syringe with the previously-used tip left in place to reduce cross-contamination between the base and catalyst. ■

Genie MagicMix + + + + ½

Sultan Chemists, Inc.
800.637.8582 • 201.871.1232
www.sultanchemists.com

Description

Genie MagicMix is an addition silicone impression system dispensed by a new disposable cartridge for use in automatic mixing machines. Unlike other systems, **Genie MagicMix** is designed for use in any machine, including the *Pentamix*, *Pentamix 2*, and *MixStar*. A unique feature of **Genie MagicMix** is the reusable bayonet ring, which secures the mixing tip onto the automatic mixing machine. The material can be used for crown and bridge, denture, implant and other impressions, utilizing various techniques. The 380 ml cartridge material is available in heavy body and regular body, in either standard (4:30 set time) or rapid-set (2:10 set time). **Genie** regular, light-body and x-light-body materials are also available in either set time and are dispensed from standard 50-ml, 1:1 ratio automix cartridges. All viscosities have a light berry flavor. **Genie MagicMix** is packaged in a single 380-ml cartridge with 10 mixing tips and one bayonet ring. The mixing tips and bayonet ring

may be purchased separately. Twenty-six consultants used **Genie MagicMix** in over 400 cases. This product received a 91% clinical rating.

Suggested Retail Cost
• \$100.00/Single Pack – 380 ml cartridge, 10 mixing tips, 1 bayonet ring
• \$320.00/Bulk Kit – 4, 380 ml cartridges

Product Features
Dentists and dental assistants who evaluated **Genie MagicMix** were experienced in using machine-based dispensing systems with a variety of PVS and polyether impression materials. Consultants almost universally approved of the berry taste and scent, with patient acceptance being excellent. The cartridge packaging was rated as very good, although the manufacturer's instructions for the installation of the cartridge and securing the bayonet ring were confusing to some consultants. Once installed, however, **Genie MagicMix** is a smooth and consistent material that dispenses easily. Impression trays are easy to load and seat in the mouth without excessive pressure.



Consultants' Comments

- ▶ "Provides good detail and easy-to-read margins."
- ▶ "Best impression material I have used!"
- ▶ "My patients liked the berry flavor and scent."
- ▶ "Bayonet tip and cartridge take time to install."

The variety of setting times and viscosities offers dentists versatility to manage virtually any impression situation. The fast-set material works especially well for impressions of single-tooth preparations. Many consultants commented that they needed more mixing tips to utilize all

of the material contained in the 380-ml cartridge. Sixty-seven percent of consultants found **Genie MagicMix** to be equivalent to or better than their current impression material. Fifty percent would switch to it and 85% would recommend it to a colleague. ■

- SENIOR CLINICAL CONSULTANTS
- E. Alpert, CT
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 - R. Ciccone, MI
 - P. Esmond, NY
 - M. Evans, TN
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 - 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
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 - G. Sayre, TX
 - K. Schwartz, FL
 - B. Shumaker, NJ
 - B. Sims, NY
 - A.M. Thompson, NY
 - R. Trushkowsky, NY
 - L. Wee, MI

- CLINICAL CONSULTANTS
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 - M. Aksu, MI
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 - J. Allen, MI
 - J. Amara, CT
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 - R. Averbach, CO
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 - R. Cherry, FL
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DryerPliers + + + 1/2

DryerPliers, Inc.
800.527.3509
www.dryerpliers.com

Description

DryerPliers are stainless steel pliers specifically designed for placing and removing sectional matrix bands. The pliers measure 12.7 cm in length and feature right-angle tips that help maintain the pre-formed curve of the bands, while keeping a strong grip force. The pliers come with two tip orientations: “D” and “M” for distal and mesial band placement. Due to the design of the mesial plier, the gripping force inherent to the distal plier is not possible from this orientation. The distal plier, therefore, is used to remove both mesial and distal bands. Twenty-seven consultants evaluated **DryerPliers** in over 305 direct restoration cases involving interproximal contacts. This product received an 82% clinical rating.

Suggested Retail Cost

- \$95.00/set of mesial and distal pliers



Consultants' Comments

- ▶ “Good grip on matrices, especially for band removal.”
- ▶ “The right angle facilitates band placement, especially in the posterior.”
- ▶ “Need to leave enough matrix occlusally to grab for band removal.”
- ▶ “I would prefer a single instrument instead of two.”

Product Features

DryerPliers were rated as good to very good in all categories evaluated. While some consultants greatly appreciated the advantages of the instruments, many found minimal benefit of two different pliers for matrix placement. A majority of consultants indicated that they were using non-specific instruments such as cotton pliers or a hemostat for band placement and removal. **DryerPliers** received good ratings for feel, ease of matrix placement and lack of band distortion during placement. The most-liked feature of the pliers was the strong grip, especially with the distal pliers, facilitating relatively easy band removal. The mesial pliers received a lukewarm response. Many indicated that the “M” pliers did not grip as well as the “D” pliers. Yet, 72% of evaluators indicated that the two plier orientations (“M” and “D”) aided in matrix placement without distortion. Overall, 58% of consultants found using **DryerPliers** to be equivalent to or better than their current method of sectional matrix band placement and removal. Twenty-six percent would switch from their current placement or removal instrument and 44% would recommend **DryerPliers** to a colleague.

Clinical Tips

- Add colored bands to differentiate mesial and distal pliers.
- Removal is done by grasping the matrix at any accessible edge, either buccal or lingual. ■

Magic FoamCord + + + +

Coltène Whaledent
800.221.3046 • 330.916.7077
www.coltenewhaledent.com

Description

Magic FoamCord is an expanding addition silicone designed for retraction of the gingival sulcus without trauma to the gingival tissue. **Magic FoamCord** is placed in the gingival sulcus around a prepared tooth. Then the patient closes on an anatomically-shaped cotton *Comprecap* that fits over the preparation. Over the course of five minutes, the silicone expands, gently pushing the gingival tissue away from the preparation. Upon removal, it peels cleanly off of the preparation. Each kit comes with two, 50-ml cartridges, 30 mixing tips, 30 intraoral tips, and one box of *Comprecap* anatomic compressors. Twenty-four consultants evaluated **Magic FoamCord** in over 280 uses. This product received an 88% clinical rating.

Suggested Retail Cost
• \$151.64/kit

Product Features

Consultants rated the ease of extrusion and ease of removal from preparations as excellent. The lack of residual material and the instructions were rated good. Some consultants noted that the *Comprecaps* found in the kits did not fit all preparations and sometimes needed to be modified. Several consultants noted that they wished that the material had a hemostatic



Premise™ + + + + 1/2

SDS/Kerr
800.537.7123 • 714.516.7400
www.kerrdental.com

Description

Premise is a light-cured resin composite containing three different sized filler particles (tri-modal): prepolymerized fillers, 30-50 microns; barium glass, 0.4 microns; and silica nanoparticles, 0.02 microns. The total filler load is 69% by volume (84% by weight). The different sized particles are intended to optimize handling, strength and polish and to reduce polymerization shrinkage. The composite is suitable for anterior and posterior restorations with no complicated shading system or special polishing techniques. It is available in Master or Starter Kits with either unit dose or syringe delivery. The Master Kit contains 16 shades (A1, A2, A3, A3.5, B1, C2, D2, XL1, XL2, Clear, Amber, Grey, A3 Opaque, A3.5 Opaque, A3 Packable, A3.5 Packable); **Optibond Solo Plus**; **Optiguard**; etchant; polishing kit with discs, points and cups; and accessories. Twenty-two consultants evaluated **Premise** in 596 clinical applications. This product received a 91% clinical rating.

Suggested Retail Cost

- \$450.00/Master Kit
- \$313.35/Starter Kit

agent in it. Many emphasized the benefit of patient comfort when using **Magic FoamCord**. When used on teeth with deep margins, multiple consultants found that more retraction was necessary than provided by **Magic FoamCord** and found the need to retake some impressions due to lack of detail. Most consultants found that **Magic FoamCord** would be useful in certain, but

Consultants' Comments

- ▶ “A great alternative to retraction cord in select cases.”
- ▶ “Ideal for use in cases where the preparation margin is at or slightly below the gingival margin.”
- ▶ “Very easy to extrude and saves time compared to cord.”
- ▶ “If the material set firmer it might achieve more retraction.”
- ▶ “Does not always retract enough for a well-detailed impression.”
- ▶ “I wish it had a hemostatic agent in it.”

Consultants' Comments

- ▶ “Nice esthetics and does not slump.”
- ▶ “Able to establish good proximal contacts.”
- ▶ “The opaque shades are very useful for blocking out underlying dark colors.”
- ▶ “Shades are slightly opaque for anterior restorations; posteriors look great.”
- ▶ “The shade guide breaks too easily.”
- ▶ “Composite is too stiff with very little flow.”

Product Features

Premise is supplied in excellent packaging consisting of two individual plastic boxes, one containing the composite either in unit dose or syringes and the other containing the adhesive and accessories. Both kits are all-inclusive and complete for any anterior or posterior composite restorative procedure. The composite was judged as very good for handling, ability to sculpt and non-stickiness during placement. The shade match both before and after curing is consistent with the shade guide provided. Resulting restorations tend to be slightly opaque. Finishing and polishing can be readily accomplished with conventional composite polishing techniques. A sample polishing kit is also provided in the kits. Sixty-eight percent of the consultants rated **Premise** equivalent to or better than the composite they were currently using and 54% would recommend it. ■

not all, situations. Fifty-eight percent of consultants would recommend the **Magic FoamCord** system while 54% would switch.

Clinical Tips

- Good to use around teeth that have recently had crown lengthening, because it is so atraumatic to the newly forming periodontal apparatus but still allows for good impression detail.
- In situations where the *Comprecaps* are too large, trim the cap so that the patient can bite down at a right angle to the preparation. This technique allows more consistent pressure while the material expands. ■

CLINICAL CONSULTANTS

T. Chuang, NJ
A. Colarusso, NY
M. Conrad, PA
M. Cooks, MI
K. Dancy, GA
M. Danner, IL
J. Dingman, WI
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T. Kaminsky, PA
D. Kaplan, NY
M. Kastner, OH
S. Kelly, OH
D. Keren, NY

Optima MX + + + + ½

Bien-Air USA, Inc.
800.433.BIEN • 949.477.6050
www.bienair.com

Description

The **Optima MX** is an electric-motor handpiece system with a touch-screen control unit. The motor is brushless, contains fiberoptics and utilizes a converter to connect to an existing delivery unit and foot pedal. Using an existing 4-hole connector with air and water inlets, the **Optima MX** converts an air-driven unit into a fiber-optic illuminated, electric handpiece unit. Virtually all procedures, including implant placement, endodontics, and high-speed and slow-speed functions, can be accomplished using the **Optima MX**. The unit features two contra-angle attachments (high-speed and low-speed), built-in torque control and auto-reverse capability. There are five programmable settings, a light intensity adjustment and full display on the color touch screen. The complete system includes the touch screen unit with stylus, an AC/DC converter, a micromotor

attachment, handpiece connector hoses, and 1:5 high-speed and 1:1 low-speed handpieces. High-speed mode ranges from 500 to 200,000 rpm when using the 1:5 attachment. Slow-speed mode ranges from 100-6,000 rpm. Eleven consultants used and evaluated the **Optima MX** daily over a six-month period. This product received a 93% clinical rating.

Suggested Retail Cost
• \$2,950/system

Equipment Features

The **Optima MX** received very good to excellent reviews from every consultant. In particular, clinicians appreciated the ease of initial set-up of the unit, low noise during use,



Consultants' Comments

- ▶ **"Operates smoothly."**
- ▶ **"Versatile system for endodontics, with variable speed, torque and auto-reverse settings."**
- ▶ **"Cuts crown preparations at least as fast as an air-driven high-speed handpiece."**
- ▶ **"Easy to adjust speed using touch screen."**
- ▶ **"Setting different functions took a while to learn."**
- ▶ **"Eliminate the 'sleep' mode, which requires touch screen reactivation."**

the unit shuts off after five minutes of non-use, was deemed an unnecessary feature. Sterilization of the handpieces was simple, as were cleaning and disinfecting the motor and touch-screen unit. Compared to conventional air-driven handpieces, the motor and handpiece were heavy, yet comparable to other electric units on the market. Overall, the handpiece was well received by all clinicians. Every consultant found the **Optima MX** to be equivalent to or better than other electric handpieces they had used or were currently using. One out of four would switch to the **Optima MX**, and 50% indicated that they would recommend the handpiece unit to a colleague. ■

Editors' Note: Beginning in September 2005, Bien Air has eliminated the "sleep" mode.

StandOut™ + + + + ½

SDS/Kerr
800.537.7123 • 714.516.7400
www.kerrdental.com

Description

StandOut is an addition silicone wash and tray impression material system. The wash material is supplied in unique single-use, dual-barrel syringes. It is indicated for all crown, bridge, edentulous, and implant impressions. **StandOut** has a peppermint scent, magenta-colored wash and gray-colored tray material, available in Fast or SuperFast Set. The Intro Kit includes wash material in eight, 2-ml unit-dose syringes and tray material in four, 50-ml cartridges with 12 mixing tips. The tray material is also available in a 362-ml foil pack for use in motorized dispensing equipment.

StandOut Fast Set has a 1.5-minute working time and a 4-minute setting time from the start of mixing. The SuperFast has a 1-minute working time and a 2.5-minute setting time. Eighteen consultants evaluated **StandOut** Fast Set in taking 116 impressions. This product received a 91% clinical rating.

Suggested Retail Cost
• \$91.65/Intro Kit

Product Features

The unit-dose delivery of the wash material is convenient and reduces concerns of cross contamination. Each syringe contains enough material for impressions of one to three prepared teeth. The wash material expresses freely from the syringe with excellent intraoral access due to its light weight and small size. The larger auto-mix cartridges allow for easy dispensing of the higher viscosity tray material. Tear resistance and the flow of the material received high ratings and the final restorations fit accurately. The magenta/gray combination provides good color contrast, although the gel-like texture of the wash lacks crispness and makes marginal details difficult to read. Seventy percent of consultants found that **StandOut** was equivalent to or better than their current impression system and 50% would recommend **StandOut** to a colleague. ■

Consultants' Comments

- ▶ **"The unit dose is convenient."**
- ▶ **"Good viscosity and wettability."**
- ▶ **"Unit-dose syringes are hard to activate."**
- ▶ **"The magenta color makes the impressions harder to read."**
- ▶ **"The intraoral tip on the wash syringe is shorter and wider than many others."**
- ▶ **"The tray material was not rigid enough."**

Sani-Soak ultra + + + + ½

Enzyme Industries, Inc.
888.236.9963 • 740.929.4975
www.enzymeindustries.com

Description

Sani-Soak ultra is a multi-purpose enzymatic cleaner used in ultrasonic cleaners as an instrument pre-soak and for cleaning evacuation systems. It is citrus-scented, biodegradable, non-toxic, and compatible with current amalgam separator systems. The liquid is available in either a one-quart bottle with a "Tip and Measure" spout or a one-gallon bottle with a pump dispenser. One-half ounce of **Sani-Soak ultra** is mixed with lukewarm water for one gallon of cleaning solution. Twenty-nine clinical consultants evaluated **Sani-Soak ultra** over a three-month period.

Consultants' Comments

- ▶ **"Very easy to use."**
- ▶ **"Effectively brightens dull instruments."**
- ▶ **"Noticeable improvement in the debridement of instruments."**
- ▶ **"Citrus odor is overpowering and needs improvement."**

Suggested Retail Cost
• \$24.95/quart

Product Features

Consultants gave high marks for manufacturer's instructions, packaging and ease of mixing/dispensing. Also rated highly were effectiveness of cleaning, time of ultrasonic debridement and the appearance of the instruments after soaking. More than half of the consultants, however, found the odor of **Sani-Soak ultra** to be unpleasant and overpowering when freshly mixed. Fifty-four percent of consultants indicated **Sani-Soak ultra** to be equivalent to or better than the ultrasonic cleaner they are currently using. Thirty-five percent would switch to **Sani-Soak ultra** and 50% would recommend it.

Clinical Tips

- Be aware that the concentrated solution may stain working surfaces.
- Remove instruments within 10 minutes to avoid corrosion.
- Measure carefully to avoid creating a solution that is too concentrated and pungent. ■

CLINICAL CONSULTANTS

- J. Kim, NY
- B. Klym, MI
- J. Kostohryz, TX
- J. Kotapish, OH
- J. Kotnour, WI
- M. Kruscke, MI
- M. LaMarche, WA
- F. Leal, VA
- M. LeVasseur, MI
- S. Lever, MD
- I. Levine, NY
- R. Lezell, MI
- R. Lieder, MI
- M. Livernois, FL
- J. Lockwood, MI
- M. Lodge, MI
- M. Man, NY
- B. Manne, FL
- N. Mansour, MI
- N. Markarian, CA
- D. Marsh, MI
- M. Mason, NY
- R. Mason, NY
- W. Mason, MI
- J. Mayer, OH
- J.R. Meagher, NY
- J. Mikesell, IL
- C. Miller, PA
- S. Miller, NV
- R. Mizrahi, NY
- L. Montes, NY
- D. Montgomery, CA
- P. Moratto, MD
- M. Morin, MI
- S. Munro, WI
- W. Nagy, TX
- J. Nash, MI
- A. Nazarian, MI
- N. Nealis, IL
- J. Neme, MI
- L. Neuberger, ND
- C.J. Noe, MD
- E. Odenweller, OH
- R. Oshrain, NY
- J. Paris, TX
- D. Parris, GA
- D. Parsons, NY
- M. Patel, MI
- T. Paumier, OH
- L. Perratto, NY
- S. Picazio, NJ
- T. Pieper, WY
- D. Pietz, NC
- W. Piskorowski, MI
- D. Pitak, MI
- S. Pomerance, MI
- D. Powers, MI
- L. Pozarny, NY
- C. Price, TX
- D. Qualliotine, NC
- G. Raichelson, Canada
- S. Ratner, NY
- R. Reichl, NC
- G. Reskakis, NY

Ivoclar Vivadent
800.533.6825 • 716.691.0010
www.ivoclarvivadent.us.com

Description

OptraGate is a single use, latex-free lip and cheek retractor that provides increased visibility and accessibility during dental procedures. It is highly flexible and elastic in all directions of movement for patient comfort and assists in keeping the patient's mouth open. The device has a small inner plastic ring that is positioned in the area of the buccal vestibule, while the larger outer ring remains outside the mouth. The elastic component between the two rings is about 35 mm and it retracts the upper and lower lips for easy access to the oral cavity. **OptraGate** is indicated for a variety of applications including restorative procedures, tooth whitening and photography and is available in two sizes, small and regular. The retractors are individually wrapped for single use and packaged in an assortment box containing 40 each of the small and regular sizes. Twenty-five consultants evaluated **OptraGate** in more than 350 clinical applications. This product received a 97% rating.

Suggested Retail Cost

- \$87.10/box of 80 (40 regular and 40 small)



Consultants' Comments

- ▶ "It's like having an additional assistant without obstructing the view."
- ▶ "Excellent for veneer preparation and placement."
- ▶ "Provides the best lip protection during in-office bleaching."
- ▶ "Opens the patient's mouth and protects the lips."
- ▶ "Provide a youth size for pediatric patients."

Product Features

The available sizes and ease of placement were rated as good, while the resistance to tearing and quality of isolation were rated as excellent. The elastic has no odor or taste and does not irritate dental tissues when placed properly. **OptraGate** is ideal for protection of the lips, eliminating interference from the lips, and providing excellent isolation for anterior esthetic treatment. The flexible nature of the retractor encourages mouth opening, yet allows complete closure for checking occlusion. Placement of **OptraGate** can be accomplished quickly with no patient discomfort, although a few patients requested that the device be removed when it was in position for an extended period of time. Eighty-eight percent of consultants would recommend **OptraGate** and rated it equivalent to or better than their current retraction methods, while 74% would switch to it.

Clinical Tips

- Lubricate the patient's lips to ease placement of the retractor.
- Place folded gauze between the retractor and the lips for greater patient comfort. ■

Editors' Note: Following our evaluation, Ivoclar Vivadent announced it will be launching a pedodontic size, **OptraGate Jr.**, in October 2005.

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

Nov. 2, 2005
 Nov. 11, 2005
 Feb. 8, 2006
 Mar. 10, 2006

Greater Cleveland Dental Society – Cleveland, OH
 THE DENTAL ADVISOR: Empower Your Practice – Ann Arbor, MI
 Colegio de Cirujanos Dentistas – San Juan, Puerto Rico
 Pacific Dental Conference – Vancouver, British Columbia, Canada

Ms. Barbara Godley – 440.717.1891
 Ms. Tricia Price – 734.665.2020
 Ms. Laura Toledo – 787.764.1969
 Mr. Jim Stitch – 604.714.2387

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. Tricia Price at 734.665.2020 or 800.347.1330, tricia@dentaladvisor.com

www.dentaladvisor.com