MAY-JUNE 2019
Vol. 36, No. 03

DENTAL ADVISOR™

Product insights you can trust.

MAIN TOPIC

2 What's New in Composites

EDITORS' CHOICE

11 3M Filtek™ Universal Restorative
(Universal nano-composite)

12 Hygenic® Framed Flexi Dam®
(Non-latex dental dam)

13 VersaSure™ Cleaner Disinfectant Wipes
(Alcohol-free, one-step disinfectanct)

15 Alpen® Carbide Burs
(One-piece bur)

CLINICAL ARTICLES

14 Temp-It® & Temp-It® Flow
(Light-cured temporary restoratives)

16 Nu Radiance® Classic
(Carbamide peroxide whitening gel)

RESEARCH REPORT

10 Compatibility of Ecosite Bulk-Fill to Bonding Agents

DENTAL ADVISOR
Product insights you can trust.

FROM THE DESK OF
Dr. Sabiha Bunek, Editor-in-Chief

MAY/JUNE 2019
VOL. 36, NO. 3

DENTAL ADVISOR
Product insights you can trust.

PUBLISHER: DENTAL CONSULTANTS, INC.
John W. Farah, D.D.S., Ph.D.
John M. Powers, Ph.D.
Sabiha S. Bunek, D.D.S.

EDITOR-IN-CHIEF
Sabiha S. Bunek, D.D.S.

EDITORIAL BOARD
Gary Bloomfield, D.D.S.
Julius Bunek, D.D.S., M.S.
Eric Brust, D.D.S., M.S.
Michelle Elford, D.D.S.
Robert Green, D.D.S.
Brent Kolb, D.D.S.
Nizar Mansour, D.D.S., M.S.
James Olsen, D.D.S.
Kathy O'Keefe, D.D.S., M.S.
Brad Stieper, D.D.S., M.S.
Anthony Valentine, D.D.S.
Peter Yaman, D.D.S., M.S.
Mark Zahn, D.D.S. M.S.

EXECUTIVE DIRECTOR
Mary E. Yakas, B.A., C.M.C.

CLINICAL EDITOR
Ona Erdt, D.M.D., C.D.A., M.S.H.S.

RESEARCH
John A. Molinari, Ph.D.
Matt G. Cowen, B.S.

DESIGN
Jim Dombrowski
Jenni Heller, B.A.

CIRCULATION
Heidi L. Graber

SALES
Christopher Voigtman

Please send inquiries and address changes to:

DENTAL ADVISOR
3110 West Liberty, Ann Arbor, MI 48103
Call: 800.347.1330 - 734.665.2020
Fax: 734.665.1648
Email: connect@dentaladvisor.com
Website: dentaladvisor.com

No unauthorized duplication or reprints may be made. Inquiries concerning duplication may be directed to the publisher. Copyright ©2019, Dental Consultants, Inc. All rights reserved. Printed in the U.S.A. (ISSN 0748-4666) by Print-Tech, Inc.

This publication is printed on paper that is 50% recycled and has 25% post-consumer content.

VISIT US ON SOCIAL MEDIA

FACEBOOK
FB.COM/THEDENTALADVISOR

INSTAGRAM
@THE_DENTAL_ADVISOR

TWITTER
@DENTALADVISOR

LINKEDIN
/COMPANY/DENTAL-ADVISOR

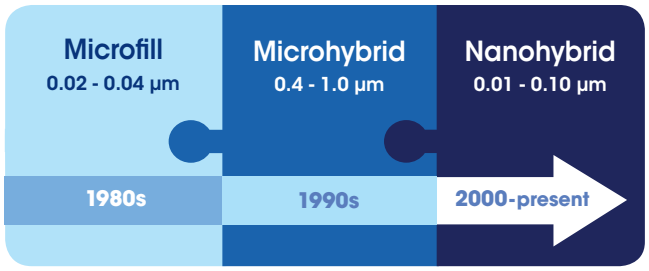
The goal of this issue is to simplify both the product selection process and the composite procedure from start to finish. We explain new terms and technology, recommend products evaluated by DENTAL ADVISOR, offer clinical tips for both anterior and posterior restorations and discuss matrix systems. I hope you find this information useful in your daily practice; you can explore each step of resin composite procedures in this one concise issue.

As always, I welcome your comments and suggestions. You can reach me at drbunek@dentaladvisor.com. Thank you for your continued support and reading!

— *Sabiha S. Bunek*

Evolution and Classification of Composites

Previous composites contained larger filler particles, which did not mimic enamel and had excessive wear over time. As the technology improved, newer composites contained smaller filler particles. Current composites are mostly nano-hybrid; however, there are three main types on the market today.



Microfills contain extremely small filler particles, allowing for high polish retention and enamel-like translucency. Microfills lack high strength, and are best used for esthetically-driven anterior restorations.

Microhybrids incorporate larger filler particles when compared to microfills, resulting in increased strength and a reduction in polishibility and finish (more matte vs. glossy). They are chosen for their durability and best for posterior restorations.

Nanohybrids combine the best of microfill and microhybrid materials. They are referred to as universal composites because the combination of strength and esthetics make them suitable for both anterior and posterior applications.

WHAT'S NEW

Simplified shading:

OMNICHROMA
(Tokuyama)

Tokuyama's ***OMNICHROMA*** is an innovative composite that matches every patient, from A1-D4, with a single shade of composite. It utilizes structural color technology to generate the color of the surrounding tooth, using no added dyes or pigments. ***OMNICHROMA*** saves doctors time and money by removing the need for shade selecting and keeping excess product for incidental shades. ***OMNICHROMA*** streamlines the restorative process, providing a single shade composite for every shade of tooth. You can learn more and request your sample today at ***OMNICHROMA.com/US.***

Universal, low-shrink, fluoride-releasing:

BEAUTIFIL II LS (SHOFU)

Due to a unique filler technology, ***Beautifil II LS*** provides high abrasion resistance, antagonist-friendly surface hardness, and optimal compressive strength. This firm-but-easy handling, stackable, non-sticky micro-hybrid composite is ideal for both anterior and posterior restorations, Classes I-V. ***Beautifil II LS*** is a premium restorative material with absolute shade stability that can be quickly and easily polished to a sustainable high-gloss finish. ***Beautifil II LS*** minimizes polymerization shrinkage and resultant shrinkage stress, which helps to prevent micro-leakage and marginal discoloration for durable, long-lasting esthetic restorations.

Nanohybrid composites continue to gain popularity because of their excellent strength, esthetics, wear resistance, handling and polishability. **Traditional universal composites** simplify the selection process for clinicians due to their shading systems. **Esthetic universal composites** offer a variety of dentin, enamel, opaque and incisal shades for challenging cosmetic cases.

ESTHETIC UNIVERSAL COMPOSITES

BRILLIANT EverGlow® (Coltene)

BRILLIANT EverGlow® is a universal submicron hybrid composite distinguished by easy polishability, gloss retention, ideal handling and exceptional blending properties. Highly esthetic outcomes can be achieved using seven universal shades in COLTENE's Duo Shade system, each of which covers two classic VITA shades (ex. A1/B1, A2/B2). Two enamel shades (translucent, BL translucent) and three opaque shades (BLO, A1O, A2O) further enhance design options for custom restorations. For "brilliant" anterior and posterior restorations, it is the ideal modern filling material.

Harmonize™ (KaVo Kerr)

Harmonize™ is infused with *Adaptive Response Technology*. This makes handling non-sticky and soft during sculpting—the viscosity then increases to prevent slumping. A rheological modifier makes the composite soft and highly moldable without stickiness. ***Harmonize*** offers superior blending and chameleon effect due to the unique filler particles which refract and diffuse light in a way that closer resembles enamel compared to other materials. ***Harmonize*** has enhanced structural integrity to ensure your restorations have exceptional strength and unmatched esthetics without compromise.

Venus® Pearl (Kulzer)

Venus® Pearl is a universal nano-hybrid composite based on the innovative urethane monomer chemistry of *Venus Diamond*. ***Venus Pearl*** offers the same combination of low shrinkage stress and high durability in a creamy consistency.

- Well suited for anterior and posterior restorations.
- Exceptional sculptability and high degree of polishability.
- Ideal for fine detailed work.
- BISGMA and BPA free.

TRADITIONAL UNIVERSAL COMPOSITES

Estelite® Sigma Quick (Tokuyama)

Estelite® Sigma Quick, DENTAL ADVISOR's Top Universal Composite for 10 years in a row, has earned the trust of clinicians for more than a decade. Utilizing 100% spherical filler technology, ***Estelite Sigma Quick*** provides superior strength, esthetics, gloss and long-term wear resistance. With one shade of composite blending invisibly with up to 10 tooth shades, it does not only deliver natural looking restorations, but also allows clinicians to reduce inventory and save time and money.

CLEARFIL MAJESTY ES-2 (Kuraray)

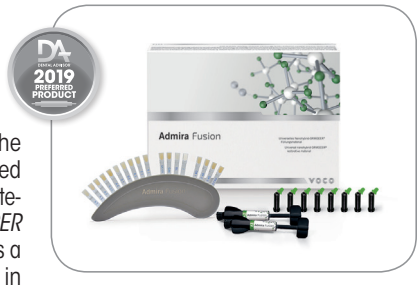
CLEARFIL MAJESTY ES-2 Premium, unlike traditional composites, relies on the initial choice of value instead of hue/chroma. Both hue/chroma and opacity are addressed within the composite structure. 15 VITA classical shades are represented by just 5 shades of ***CLEARFIL MAJESTY ES-2 Premium.*** By using corresponding E (enamel) and D (dentin) shades, you are able to match the tooth color where normally three different shades or shade combinations would be needed to match these VITA- approved classical shades using other systems (ex. A2D and A2E). The composite easily blends to the color of the surrounding tooth structure. Kuraray's proprietary LD (Light Diffusion) technology offers light refraction, thereby producing a more life-like restoration.

Venus® Diamond (Kulzer)

Venus® Diamond leads the industry in color adaptability, with a patented formula that provides an outstanding natural look. Just one shade saves time and produces radiant results. Along with superb color esthetics, this revolutionary nano-hybrid composite exhibits exceptional durability, handling and minimal shrinkage.

- Revolutionary nano-hybrid that enables perfect color adaptation, ease of polish and long-lasting shine.
- Provides high durability with minimal shrinkage.
- Extended working time for efficient sculpting.

Admira Fusion (VOCO)



VOCO's ***Admira Fusion*** is the world's first all ceramic-based direct universal restorative material. Based on *Nano-ORMOCER* technology, ***Admira Fusion*** is a technological breakthrough in the category of direct restoratives offering many advantages compared to composites, including up to 50% lower shrinkage (1.25% by volume) and shrinkage stress, ceramic-like esthetics, non-stick handling and a high fill rate of 84%. ***Admira Fusion's*** pure-silicate composition means that it does not contain any of the traditional monomers (Bis-GMA, TEGDMA UDMA, etc.), elevating its biocompatibility to a whole new level.

Historically, flowable composites were not considered versatile or reliable as a permanent restoration. Until recently, most flowable composites contained higher resin content and lower filler loading when compared to conventional composites. Reducing filler content decreases strength and increases flowablilty, which makes it easy to place. However, the increase in resin content can cause polymerization shrinkage. Many of these materials still exist today; some indications include: cavity liner, pit and fissure sealants, minimally invasive Class I, II, or III restorations, Class V restorations and the repairs of small defects in direct and indirect restorations.

Universal Highly-Filled Flowables

In recent years, manufacturers have introduced universal flowables with ***higher filler content*** in ***varying viscosities.*** The higher filler content ***increases strength and wear resistance, lowers polymerization shrinkage,*** and allows the material to be stacked. With the increase in strength, a universal flowable is suitable for Class I-V restorations.

Increase in fillers results in increase in strength and decrease in flowability

POSTERIOR CASE

Preoperative: Class V, non-carious lesions #28[B] and #29[B]

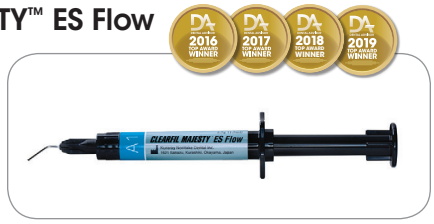
Final restoration placed with ***CLEARFIL MAJESTY ES Flow***

ANTERIOR CASE

Preoperative: #7[I] and #8[DIF]

Final restoration placed with ***G-aenial Universal Injectable*** (GC America)

CLEARFIL MAJESTY™ ES Flow
(Kuraray)



CLEARFIL MAJESTY™ ES Flow is a light-cured, radiopaque, universal flowable composite developed using special submicron fillers that make it easy to polish. A high-level gloss can be achieved by simply wiping the cured resin with a gauze or cotton roll soaked in ethanol. In addition, ***CLEARFIL MAJESTY ES Flow*** blends well with surrounding tooth structure, as special cluster fillers bring a light diffusion property to the product. This cluster filler also contributes to superior handling of the product, with its sculptability and non-runny properties. Having high mechanical properties, esthetics and a chameleon effect make ***CLEARFIL MAJESTY ES Flow*** unlike conventional flowable composites. Uses include as a liner/base material, and as a direct restoration for all cavity classifications.

G-aenial™ Universal Injectable
(GC America)

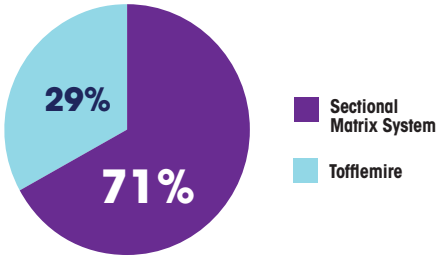
G-aenial™ Universal Injectable is a high-strength composite with ideal viscosity, handling and adaptation characteristics. The homogeneously dispersed ultra-fine particle formula provides high flexural strength and wear resistance for durable, long-lasting restorations that retain their gloss for many years. ***G-aenial Universal Injectable*** can be light-cured up to a depth of 2 mm.

Posterior Composites:
Sectional Matrix Systems

Successful Class II restorations require clinicians to utilize a matrix system to recreate the missing proximal tooth structure. The goal is to create an ideal contact with the adjacent tooth, restore optimal interproximal contour and minimize time spent finishing and polishing.

Restoring Class II restorations with amalgam requires circumferential bands/retainer matrix systems. Due to its plasticity, amalgam can be condensed into the proximal cavity, resulting in tight interproximal contacts. Resins cannot be compressed against the matrix band as well as amalgams can, and when used in conjunction with conventional matrix systems, a tight contact is not always consistently achievable. Manufacturers have developed sectional matrix systems, such as ***Composi-Tight 3D® Fusion Sectional Matrix System*** (Garrison Dental Solutions) and the ***NiTin™ Sectional Matrix Systems*** (Garrison Dental Solutions). These easy-to-use systems utilize three components, allowing clinicians to predictably and efficiently create interproximal contacts.

Survey of Clinical Consultants:
What are you using for class II restorations?



Some dentists still prefer using a Tofflemire-style matrix system for their posterior composites, and many clinicians who prefer sectional matrix systems will keep Tofflemire systems in the office for certain indications.

Sectional Matrix Systems require the use of three components:

1. Pre-contoured small sectional band

Used to create proper contours.

2. Wedge

Seals gingival margin and aids in tooth separation.

3. Separating Ring

Secures the band and wedge in place to contain the restorative material, as well as assists in providing tooth separation.

Composi-Tight® 3D Fusion Sectional Matrix System
(Garrison Dental Solutions)

Composi-Tight 3D Fusion Sectional Matrix System is a next-generation sectional matrix system designed to enable the creation of tight contacts in posterior composite restorations. The strong rings improve retention and fit to the tooth, with retention extensions anchoring the ring to the tooth to prevent slippage and silicone tips that minimize and prevent flash. A wide ring is included for wider preps. The matrix bands have tabs to make placement easier, and are coated to be non-sticky for easy removal. Two of the three matrix bands have sub-gingival extensions. The ***3D Fusion*** wedges incorporate fins that retract during placement, then spring back to help secure them tightly against the tooth for good marginal seal.

NiTin Sectional Matrix
(Garrison Dental Solutions)

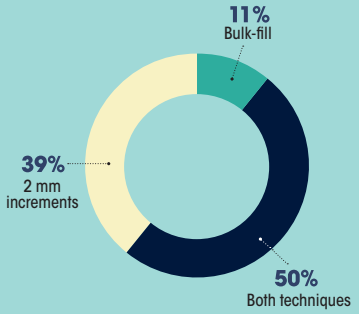
NiTin Sectional Matrix System consists of sectional matrices, rings, wedges and forceps. The *NiTin* rings are fabricated with drawn-wire nickel titanium (Nitinol) that has undergone proprietary heat-set processing to increase its strength and resilience, and polyether ether ketone (PEEK) reinforcement to reduce ring stretch. The ring placement forceps offer precise control during ring placement, and the fully-contoured sectional matrices are fabricated from polished, very soft 0.0015" stainless steel and are rigid to resist deformation. An easy placement tab is incorporated for matrix placement using the band forceps. The flexible curved wedges are designed with a curved tip to help the wedge glide interproximally, providing a marginal seal.

Placement technique: Traditional Layering vs Bulk-Fill

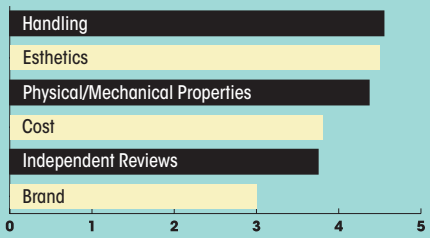
Direct posterior composites are among the most performed restorative treatments in dentistry; however, placement can be challenging and time consuming. To save time and deliver predictable posterior restorations, manufacturers developed bulk-fill composites. Where once it was required to cure composites in increments of 2 mm, newer bulk-fill products can be cured up to 4-6 mm, while decreasing shrinkage stresses generated during polymerization. The quicker placement of these materials has made them quite popular, and with the availability of long-term clinical data, clinicians are becoming more confident in their use.

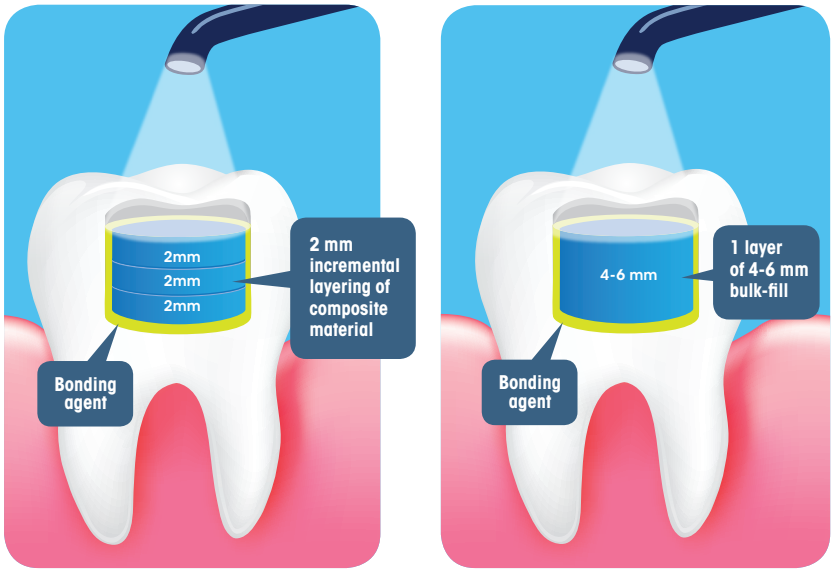
BULK-FILL SURVEY RESULTS FROM OUR CONSULTANTS

Are you layering composites in 2 mm increments or utilizing a bulk-fill technique?



What matters most when choosing a composite?





A comparison of the traditional layering technique versus bulk-fill placement technique.

BULK-FILL MISCONCEPTIONS

CONCERN: Bulk-fill composites are too translucent.

ANSWER: Many of the current bulk-fill materials have made changes to their chemistry to allow for a complete depth of cure with more opacity, resulting in more esthetic restorations.

REVEAL® HD Bulk
(BISCO Dental Products)

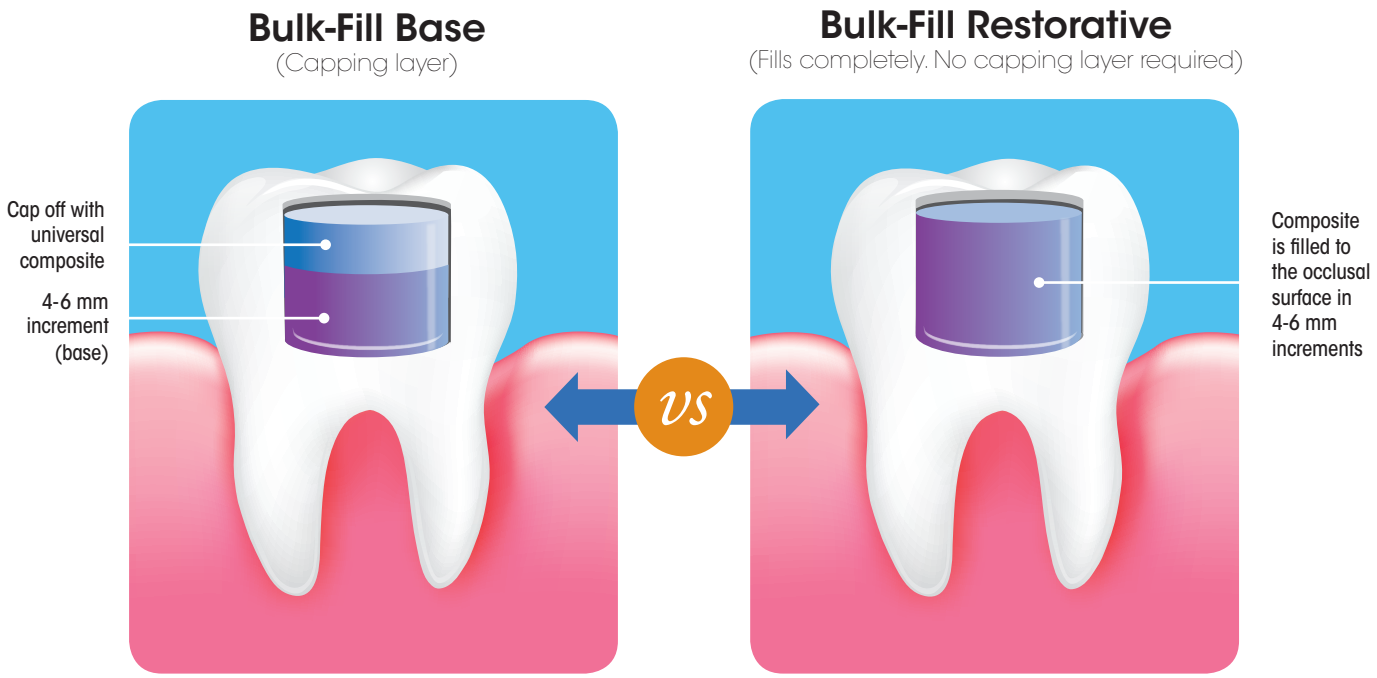
Bisco's ***REVEAL® HD Bulk*** is a light-cured bulk-fill composite designed to improve the quality and timeliness of restorations. ***REVEAL HD Bulk*** is optimized to allow for easier, faster posterior restorations by combining superior levels of handling, placement and depth of cure. The exceptional ease-of-use allows for simple and convenient placement of the composite in the prep, while the category-leading depth of cure ensures a solid restoration from the top-down so you can cure with confidence.

G-aenial™ Bulk Injectable
(GC America)

G-aenial™ BULK Injectable is a high-strength composite with ideal viscosity, handling and adaptation characteristics. The homogeneously dispersed ultra-fine particle formulas provide high flexural strength and wear resistance for durable, long-lasting restorations that retain their gloss for many years. ***G-aenial BULK Injectable*** can be light-cured up to a depth of 4 mm without the need to cap or veneer.

Bulk-Fill Composites: Understanding the differences

Bulk-fill composites are not all the same. It is important to understand how they differ and to use them accordingly. The main difference among bulk-fill composites can be seen in the viscosity of the material and its delivery.



BULK-FILL MISCONCEPTIONS

CONCERN: Do you truly achieve a complete depth of cure with a 4 mm increment of bulk-fill composite?

ANSWER: DENTAL ADVISOR Biomaterials Laboratory has tested multiple bulk-fill composites and ***confirmed depth of cure*** for many bulk-fill materials based on ISO 4049 standards and by directly measuring the composite hardness at increasing depths (see Research Reports 105, 120, 123). Some bulk-filled composites can additionally be cured to over 5 mm with light curing from additional angles, and some dual-cured composites have been shown to have unlimited depth of cure due to excellent chemical curing.

WHAT'S NEW

SonicFill™ 3 (KaVo Kerr)

SonicFill™ 3, *SingleFill™ Composite System* replaces conventional time-consuming, multi-stage layering techniques by eliminating the need for placing a liner or final capping layer. Now, with improved adaptation and optimized for easier handling, it's the only sonic-activated bulk-fill composite system that provides the benefits of both flowable and sculptable composites in one.

- 5 mm depth of cure with *SingleFill™ Composite System*
- Improved adaptation to the internal walls and restoration margins
- Better, non-sticky handling
- Simpler to extrude during placement
- Low shrinkage stress for lasting marginal integrity

Composite Wish List

Our clinical evaluators told us what they ***would ideally like to see*** *in composites:*

- Easy to handle, non-sticky, sculptable
- Chameleon effect when blending
- Excellent, lifelike esthetics
- No shade shift upon curing
- Stable color
- Radiopaque
- Not sensitive to ambient light
- Easily dispensed but not too runny
- Wear resistant
- Little or no polishing needed
- No voids or bubbles
- Excellent physical properties that are tested outside the company
- Low shrinkage upon curing
- Decreased placement and finishing time
- Strength and longevity without marginal leakage, fracture and discoloration

DENTAL ADVISOR

Clinical Consultant SPOTLIGHT

Dr. Lori Trost

- Practices in the Greater St. Louis area
- Consultant for 1.5 years

What do you like about being a Clinical Consultant for DENTAL ADVISOR?

I like the variety of products. I like the system in which you engage, and how you ask us what we want to sample. There's a good matching system there. And the way the surveys are facilitated is an easy system for us as evaluators. Sometimes I think I even write too much! The surveys are very straightforward. I've been a consultant and an evaluator for other systems, and this is the easiest system.

> "I find that it jazzes up our profession and our passion because of the constant learning. **I am a constant student.**"

What is most important to you about being a Clinical Consultant?

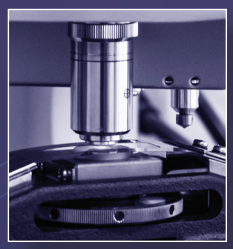
Being an evaluator is really important to me because it keeps you in the know, and you stay current. It really forces you to learn more about dental materials, which is probably something you didn't want to know about in dental school. But for those of us that really enjoy that, I find that it jazzes up our profession and our passion because of the constant learning. I am a constant student, so I really like that. It feeds my desire for that.

DENTAL ADVISOR

DENTAL ADVISOR
Product insights you can trust.

Biomaterials Research Report

Matt Cowen, B.S.
DENTAL ADVISOR Biomaterials Research Center
3110 West Liberty, Ann Arbor, MI 48103
(734) 665-2020, ext. 111
matt@dentaladvisor.com



Number 124 – November, 2018

Compatibility of Ecosite Bulk-fill to Bonding Agents

M. Cowen, J.M. Powers

Purpose:

This project tested the compatibility of ***Ecosite Bulk-Fill*** to four different generations of bonding agents on human dentin.

Experimental Design:

Composite: ***Ecosite Bulk-Fill*** (DMG America) [lot: 788810]

Bonding Agents:

4th-generation bond: ***Clearfil Photo Bond*** (Kuraray) [lot: 000058] Total-Etch

5th-generation bond: ***Prime & Bond NT*** (Dentsply) [lot: 1804000165] Total-Etch

6th-generation bond: ***Futura Bond M*** (Voco) [lot: 1817242] Self-Etch

7th-generation bond: ***Ecosite Bond*** (DMG America) [lot: 788410] Self-Etch

Tooth Conditioner: ***Scotchbond Universal Etchant*** (3M)

Substrates: Human Superficial Dentin

Storage: 24h or 5000 thermocycles between 5°C and 55°C

METHODS:

Shear Bond Strength, n=10 per test group: Extracted adult human third molars, sterilized in a 0.5% chloramine T solution, were embedded in acrylic resin discs and ground through 600-grit SiC paper to form bonding substrates of superficial dentin and ground enamel. Specimens were then ultrasonically cleaned in deionized water for five minutes. For total-etch specimens using ***Clearfil Photo Bond*** and ***Prime & Bond NT,*** a 35% phosphoric acid etchant was applied for a 15 seconds dwell time on dentin.

The bonding agent was applied to the substrate according to the manufacturer's instructions, followed by light curing for 10 seconds using an *Elipar Deep Cure-S* curing light unit. ***Ecosite Bulk-Fill*** was then placed on top of the bonding agent, utilizing the Ultradent Shear Test mold and jig to produce a 2.38 mm diameter shear test cylinder according to ISO 29022:2013. The cylinder was light cured for 20 seconds while in the mold. The specimens were then transferred to a 37°C deionized water bath for 24 hours or 5000 thermocycles, with a 20 second dwell time between 5°C and 55°C. Testing was performed using an *Instron 5866* at a crosshead speed of 1 mm/min, and shear bond strength results given with means and standard deviations and failure mode analyzed using a 45X light microscope.

Results:

Bond Strength Results Summary, MPa				
	Clearfil Photo Bond	***Prime & Bond NT***	***Futura Bond M***	***Ecosite Bond***
24h	25.2 (8.0)	32.7 (9.2)	20.0 (3.6)	30.0 (5.0)
5000 TC	17.9 (6.3)	27.9 (6.3)	20.8 (4.4)	30.1 (7.3)

There were zero debonding failures at the composite-to-adhesive interface indicating compatibility of ***Ecosite Bulk-Fill*** to these four generations of bonding agents.

Conclusion:

There was no decrease in bond strength to dentin after thermocycling for ***Ecosite Bond.***

3M Filtek™ Universal Restorative

+++++

EDITORS' DENTAL ADVISOR +++++ CHOICE

96% overall rating

3M
www.3m.com

Description

3M Filtek™ Universal Restorative contains patented nanocomposite technology designed to provide excellent strength, wear resistance, polish retention and esthetics. In addition, this new universal composite contains a low-stress monomer that helps to relieve stress associated with polymerization shrinkage. It is available in eight designer shades plus extra white, all in a single opacity, allowing for easy shade matching with natural dentition. In addition, a Pink Opaquer (PO) is available for blocking out metal and dark dentin. ***3M Filtek Universal Restorative*** is available as 0.2 g capsules and 4g syringes in shades A1, A2, A3, A3.5, A4, B1, B2, D3, plus XW and PO.

Clinical Tips

- Shield from ambient light.
- Do not overwork the material.
- Pack in gently at first and use a ball burnisher in order to achieve the best surface-margin finish.

Unique Features

- Patented nanoparticles include nanoclusters for wear resistance and esthetics
- High strength, suitable for stress-bearing areas
- Smooth surface gloss and polish retention for excellent esthetics
- Proprietary low stress monomers help to relieve shrinkage stress
- New *NaturalMatch* technology, incorporating nanofillers, proprietary low-stress monomers and pigments, enable one-shade esthetics to blend more naturally with dentition

"VERY CREAMY. EASY TO PLACE, PACK AND SCULPT."

Evaluators' Comments

- *"Very esthetic and easy to match to the VITA shade guide."*
- *"Nine shades make shade selection easier and requires less inventory."*
- *"I liked the ease of control at the margins for occlusal and interproximal restorations."*
- *"The Pink Opaquer blocks out dark stain perfectly."*
- *"I would like to see a flowable **Filtek Universal** for deep restorations and proximal boxes."*

Indications

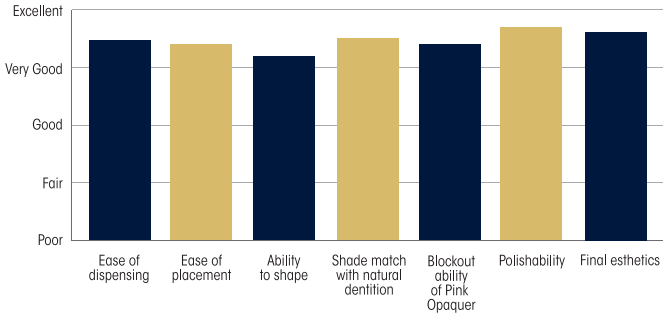
- Direct anterior and posterior restorations (including occlusal surfaces)
- Core buildups
- Splinting
- Indirect restorations including inlays, onlays and veneers

Evaluation Highlights

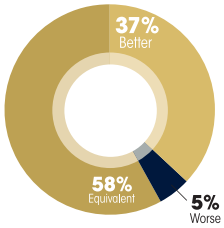
3M Filtek Universal Restorative was evaluated by 19 consultants, with a total of 494 uses.

- Good viscosity and handling
- Easy to pack and sculpt
- Pink Opaquer for blockout
- Good shade match with natural dentition
- High gloss finish

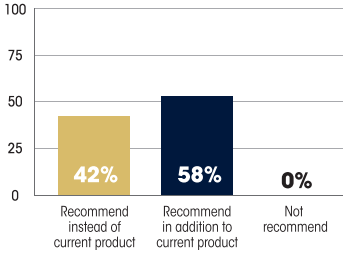
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Hygenic® Framed Flexi Dam®

++++ ½

95% overall rating

COLTENE
www.coltene.com

Description

Hygenic® Framed Flexi Dam® has a built-in flexible frame, designed to fit comfortably around the oral cavity and to eliminate the time-consuming and technique-sensitive fitting of the frame. The smooth surface of the plastic frame helps to maximize patient comfort when positioned on the skin. The dam material is highly elastic, allowing it to stretch to accommodate easy hole-placement for posterior and anterior teeth. ***Hygenic Framed Flexi Dam*** has a workable area of 100 x 105 mm, is powder-free and odorless. It is available in a medium gauge, non-reflective purple color. ***Hygenic Framed Flexi Dam*** is available in 20 ct. boxes.

Unique Features

- Non-latex and powder-free
- Built-in flexible frame adds comfort and eliminates the need to fit a frame
- Highly resistant to tearing
- Elastic elongation nine times its original length
- Odorless
- Dam material has a smooth surface for patient comfort

Clinical Tips

- Take advantage of the bendable shape to keep a wall of material under the nose. This blocks water spray without affecting patient breathing ability.
- Bend it a little bit to create more flexibility prior to positioning.
- Place clamp on tooth first. The built-in frame makes placing dam with clamp attached more difficult.

"THE BUILT-IN FRAME MAKES PLACING IT VERY FAST AND EASY."

Evaluators' Comments

- *"It was much easier to take radiographs and suction behind during my endodontic procedures than my normal rubber dam."*
- *"This is a great find! Easy to apply and a good color."*
- *"Excellent for quick isolation."*
- *"Difficult to punch holes in the middle."*
- *"A little more difficult to use when isolating second molars."*

Indication

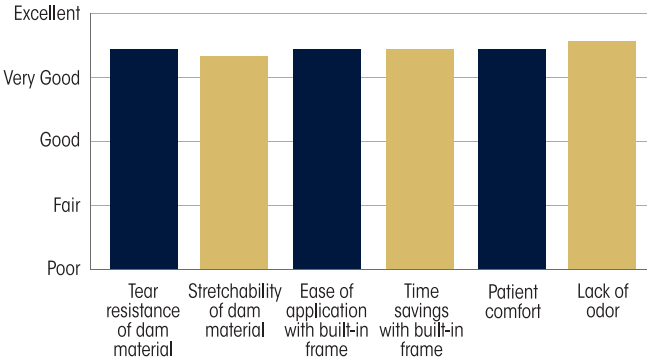
- Procedures for which use of a rubber dam is indicated

Evaluation Highlights

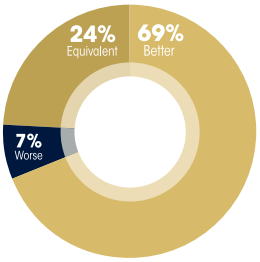
Hygenic Framed Flexi Dam was evaluated by 30 consultants, with a total of 510 uses.

- Flexible built-in frame allows for fast, easy placement
- Stretchy, non-latex dam material
- Tear resistant

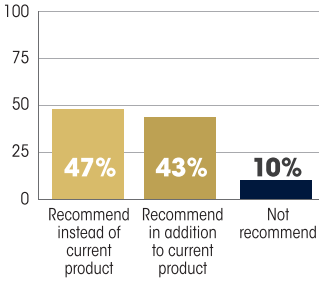
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



VersaSure™ Cleaner Disinfectant Wipes

++++ ½

92% overall rating

Clorox Healthcare®
www.cloroxpro.com

Description

VersaSure™ Cleaner Disinfectant Wipes are ready-to-use, alcohol-free, one-step cleaner disinfectant wipes. The wipes effectively kill a broad spectrum of 44 disease-causing microorganisms within two minutes. The TB kill time is two minutes, and the kill time for HIV, HBV and HCV is 30 seconds. ***VersaSure Cleaner Disinfectant Wipes*** are formulated to be low-odor, stay wet on surfaces for a full two minutes, result in minimal residue on surfaces and offer good compatibility with a wide range of non-porous surfaces found in dental operatories. ***VersaSure Cleaner Disinfectant Wipes*** come in two sizes: a 6.75″ x 8″ wipe available in an 85-ct canister, a 6″ x 5″ wipe available in a 150-ct canister, and 30-ct flat pack (also 6.75″ x 8″), as well as a 12″ x 12″ terminal wipe available in a 110-ct bucket and 110-ct refill pack.

Unique Features

- Broad spectrum
- Two-minute TB kill time
- Kills 44 pathogens in two minutes or less
- Minimal odor
- Minimal residue on surfaces after drying
- Compatible with a wide range of surfaces including granite, Corian, stainless steel, plastics and vinyl fabric

Indications

- Cleaning and disinfecting of clinical contact surfaces
- Cleaning and disinfecting of non-critical items

"MINIMAL ODOR AND NO RESIDUE."

Evaluators' Comments

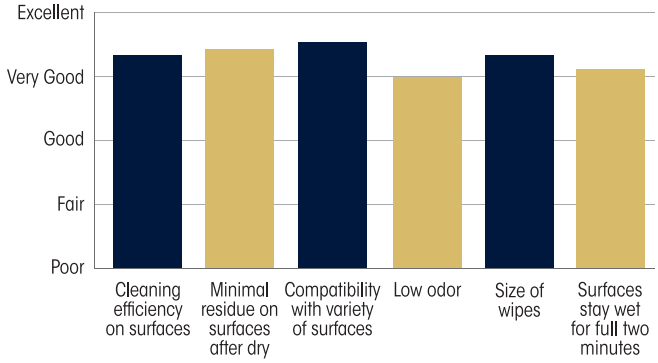
- *"I like that the wipes are large and thick."*
- *"They actually maintained a wet surface."*
- *"Broad spectrum with short kill time."*

Evaluation Highlights

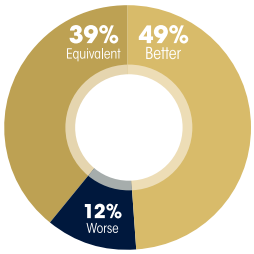
VersaSure Cleaner Disinfectant Wipes were evaluated by 33 consultants, with a total of 1722 uses.

- Alcohol free, broad spectrum kill in only two minutes
- Surfaces stay wet for full two-minute kill time
- Minimal odor
- Compatible with a wide range of surfaces
- Minimal residue on surfaces after they dry

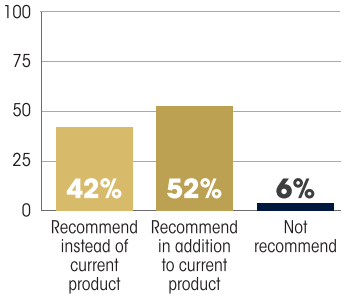
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Temp-it® and Temp-it® Flow

++++ ½

91% overall rating

Spident
www.spident.co.kr

Description

Temp-it® is a light-cured temporary restorative material with high elasticity. The high elasticity of this material allows for one-piece removal. It is available in two types, a high-viscosity ***(Temp-it)*** and a low-viscosity ***(Temp-it® Flow)***. ***Temp-it*** is available in 3 g syringes and ***Temp-it Flow*** is available in 1.2 mL syringes. Both viscosities are available in yellow or blue shades.

Unique Features

- Light-cured, 20-second cure time
- Sets firm, yet flexible
- Non-sticky placement
- Low-viscosity flowable option, ideal for deep inlays
- Elasticity allows for removal in one piece
- Low shrinkage, after curing, of 0.07%

Clinical Tips

- Try ***Temp-it Flow*** for repairing provisional margins.
- I had a patient come in at the end of the day that lost a crown on #19. I used the ***Temp-it*** as a provisional crown and it worked great in a pinch until he was able to come back for the impression.
- The blue color is great for contrast with implant screws.
- Removal can be difficult if there are any undercuts.
- Build up as you do a composite and cure.
- The flow material is great for implant access holes.

"READY TO USE, EASY TO PLACE, QUICK SET."

Evaluators' Comments

- *"I liked the adaptability - I was able to shape it very nicely."*
- *"Both versions offer the look and feel of a composite material."*
- *"I am a long time Fermit™ user who finally found a better material to switch to!"*
- *"If you have used any other light-cured temporary material, this will be a distinct improvement over those previous products."*
- *"Placement was sometimes difficult."*
- *"Colors are not cosmetic."*

Indications

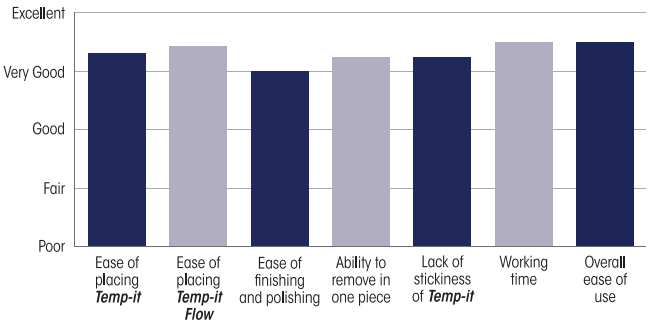
- Temporization of inlay and onlay restorations
- Sealing of implant screw access openings
- Temporization of missing restoration/tooth structure

Evaluation Highlights

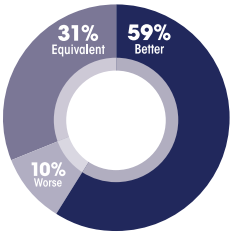
Temp-it and ***Temp-it Flow*** were evaluated by 29 consultants, with a total of 591 uses.

- Non-sticky
- Easy to use
- One-piece removal
- Flexible
- Light-cured
- Strong and polishable
- Two viscosities

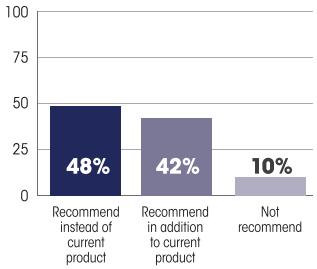
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:

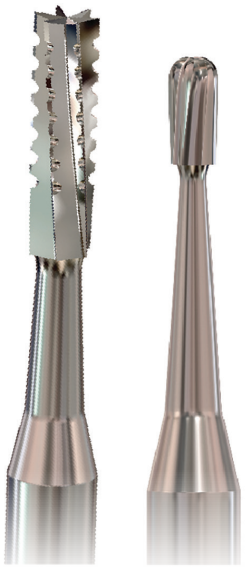


Alpen® Carbide Burs

+++++

EDITORS' DENTAL ADVISOR +++++ CHOICE

96% overall rating



COLTENE
www.coltene.com

Description

Alpen® Carbide Burs offer a variety of one-piece constructed burs in various profiles allowing for greater product selection. This one-piece method of fabrication is also designed to improve concentricity. Greater cutting efficiency, precision, and durability are achieved with burs that are highly concentric. ***Alpen Carbide Burs*** are available in packs of 5, 10 and/or 100 burs, and in a variety of shapes including: round, inverted cone, amalgam prep, pear, fissure, round-end fissure, long tapered fissure, round-end tapered fissure, cross-cut fissure, round-end cross-cut tapered fissure, long cross-cut tapered fissure, end-cutting and tapered fissure.

Indication

- Dental procedures requiring the use of carbide burs

Evaluators' Comments

- *"The cutting efficiency was great."*
- *"I never had a bur head break off from the shaft."*
- *"With this bur I averaged five-to-seven teeth before replacement compared to two-to-four teeth with my current brand."*
- *"They cut through old amalgams and crowns really well."*
- *"I liked that I did not have to worry about a weld point separating."*
- *"Very smooth, even when removing metal restorations!"*
- *"No joint to break or rust."*
- *"Predictable. I know they are going to fit in my chuck, cut predictably, and hold together."*
- *"Best burs I have ever used. I would definitely recommend them."*
- *"I liked the shape of the burs."*
- *"Cut through enamel very quickly and evenly."*
- *"Held sharpness after autoclave cycles better than the current burs I use."*

" VERY SMOOTH WHEN CUTTING, NO CHATTER, NO BREAKAGE AND FULLY DURABLE."

Unique Features

- One-piece fabrication, eliminating the risk of joint breakage and rusting
- High concentricity
- Efficient cutting
- Durable

Clinical Tips

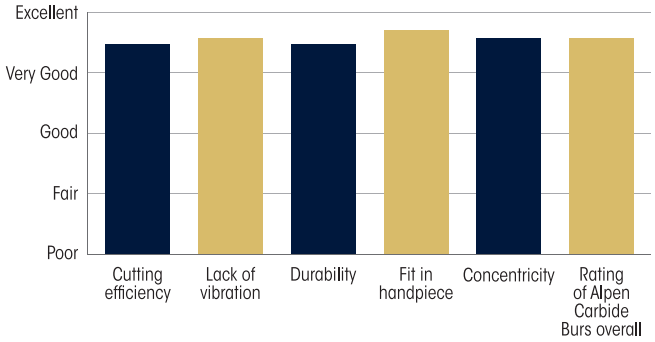
- Let the bur do the cutting; they are very efficient.
- Use copious water.
- Great for cutting through the metal on a PFM crown.

Evaluation Highlights

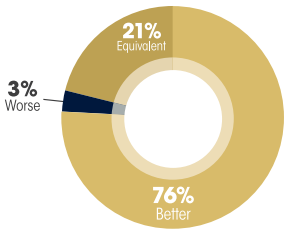
Alpen® Carbide Burs were evaluated by 33 consultants, with a total of 901 uses.

- Smooth cutting, minimal vibration or chatter
- Efficient and predictable cutting
- Durable
- One-piece fabrication, eliminating the risk of joint breakage and rusting

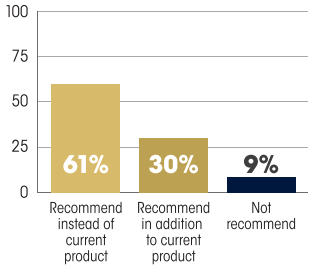
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Nu Radiance® Classic

++++ ½

91% overall rating

Nu Radiance, Inc.
www.nuradiancepro.com

Description

Nu Radiance® Classic is a take-home, carbamide peroxide tooth whitening gel that is available in multiple strengths to accommodate a variety of patient needs. ***Nu Radiance Classic*** is effective on difficult stains, including tetracycline, with excellent results achieved in as little as five-to-eight days. ***Nu Radiance Classic*** is available in four strengths: 10% carbamide peroxide, with a two- to four-hour wear time; 16% carbamide peroxide, with a two- to four-hour wear time; 22% carbamide peroxide, with a one-hour wear time; and 30% carbamide peroxide, with a 30-minute wear time.

Unique Features

- Effective on difficult stains, including tetracycline
- Available in multiple strengths
- Mint flavor
- Segmented marking on syringes

Indication

- Take-home whitening

Evaluation Highlights

Nu Radiance Classic was evaluated exclusively by 67 patients, with a total of 24 using the 16% whitening gel, 24 using the 22% whitening gel, and 19 using the 30% whitening gel.

- Multiple strengths to accommodate a variety of patient needs
- Effective on difficult stains

"VERY NOTICEABLE RESULTS, EVEN AFTER THE FIRST USE."

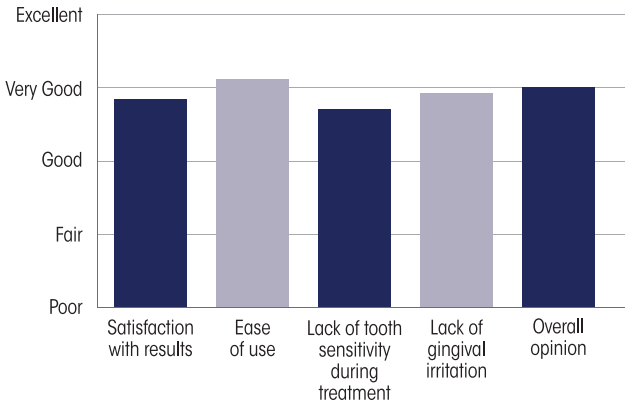
Patients' Comments

- *"Very easy to use and I did not have any sensitivity!"*
- *"I got good results in a short time before my wedding."*
- *"I liked the packaging with the water bottle."*
- *"I had a nicer result with **Nu Radiance** than Zoom."*

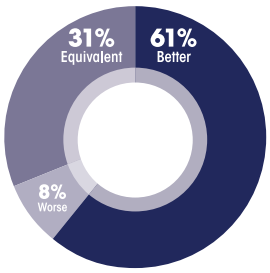
Clinical Tip

- The dispensing tip has a built-in recappable tip. Save the cap at first use, and rotate cap to seal tip between uses.

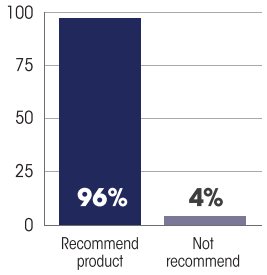
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



SPECIAL THANKS TO:

Select Senior Clinical Consultants (Over 20 years):

R. Fisher, OH · E. Katkow, MD · J. Lockwood, MI · G. Poy, MI · R. Trushkowsky, NY · P. Yaman, MI · K. Baker, TX · F. Berman, PA · J. Bostic, OH · L. Brimhall, MT · M. Briskin, NY · W. Brownscombe, MI · R. Ciccone, MI · C. Colbert, MI · M. Conrad, PA R. Dost, VA · J. Doueck, NY · M. Eannaccone, NY · R. Engle, IL · K. Fairbanks, MI · M. Feinberg, NY · K. Fischer, IN · G. Franco, NY · N. Garlisi, OH · S. Graber, IL · P. Grandsire, NY · E. Gutman, NY · D. Haas, Ontario · K. Hamlett, TX G. Hart, OH R. Herwig, KS · J. Kaminski, MI · R. Kaprielian, NJ · M. Kastner, OH · D. Keren, NY · M. LaMarche, WA · J. Leitner, MI · S. Lever, MD · R. Lezell, MI · M. Man, NY · B. Manne, FL · N. Mansour, MI · N. Markarian, CA · C. McLaren, MI · J.W. Mikesell, IL R. Mizrahi, NY · G. Mosso, PA · E. Mosso, PA · J. Nash, MI · A. Nazarian, MI · R. Oshrain, NY · J. Paris, TX · D. Parris, GA · M. Patel, MI · D. Peterson, MD · T. Pieper, WY · D. Pitak, MI · V. Plaisted, NY · D. Qualliotine, NC · G. Raichelson, Ontario C. Reed, MI · G. Reskakis, NY · K. Schwartz, FL · J. Shea, MO · B. Shumaker, NJ · B. Sims, NY · P. Symeonides, NY · H. Tetalman, OH · C. Trubschenck, CA · S. Ura, NH · W. Walcott, MI · M. Waranowicz, MI · L. Wee, MI H. Yeung, CA · P. Zanetti, MI · S. Zimmer, MI

Clinical Consultants (19 years or less):

D. Aaron Matatiaho, CA · A. Albright, NY · B. Argersinger, NC · P. Arsenault, MA · G. Ash, MI · S. Baker, GA · M. Bannan, NC · B. Barricklow, OH · L. Bartoszewicz, MI · B. Bauer, IL · J. Bechtel, MI · C. Bhatti, MI · L. Bishop, MI · T. Bizga, OH G. Bloomfield, MI · G. Bonior, MI · C. Brown, LA · E. Brust, MI · S. Bunek, MI · J. Bunek, MI · J. Bush, PA · H. Cadorette, MI · M.Capalbo, RI · M. Caligiuri, CA · P. Campo, NY · P. Cracchiolo, MI · D. Chacko, TN · P. Chaiken, IL · R. Cherry, FL · R. Chuang, CA M. Connelly, MI · S. Crawford, MI · J. Curley, NC · W. K. Dancy, GA · S. Dillingham, NY · K. Dobracki, MI · S. Doniger, IL · J&E Duski, MI · A. Dutko, MI · M. Egbaria, IL · M. Elford, MI · O. Erdt, MI · K. Evanoff, MI · M. Evers, OH F. Facchini, MI · F. Falcao, FL · L. Feldman, NJ · G. Fink, DE · M. Frankman, SD · M. Glovis, MI · C. Goldin, MI · M. Grant, MI A. Green, MI · R. Green, MI · B. Greenwood, UT · J. Griffin Jr., MO · K. Grindling, MI · P. Gronet, KY · R. Grossman, PA H. Gulati, MA · F. Haddad, MI · G. Haddad, CA · J. Haddad, MI · A. Hakhamian, CA · J. Hamerink, MI · W. Hanna, MI · J. Hastings, CA · A. Hodges, NC · C. Huang, CA · M. Huberty, WI · J. Ireland, MI · S. Irwin, NJ · C. Jaghab, MI · J. Jaghab, MI T. Jolly, TN · R. Juluri, IL · M. Kachi-George, MI · D. Kapp, NY · J. Kane, MI · Y. Kang, MA · J. Karam, MI · G. Karaouzas, MI · E. Kelly, GA · J. Kelly, GA · L. Kemmet, MN · M. Koczarski, WA · L. Knowles, MI · B. Kolb, MI · GA Krishnan, CA · E. Kuns, OH C. Laird, OR · R. Le, NC · I. Levine, NY · E. Lowe, BC, CAN · A. Malkis, NY · C. Manduzzi, MI · J. Mangutz, MI · K. Mantzikos, NY · B. Mayday, MI · T. McDonald, GA · J. McLaren, MI · M. McMullin, MI · G. Meylan, MI · M. Migdal, MI I · J. Minsky, CA L. Montes, NY · A. Moore, NC · L. Motyl, MI · M. Murphy, MI · M. Murrell, MI · L. Musgrave, MI · M. Nasif, MI · N. Nealis, IL · B. Neren, NY · J. Neuman, MI · J. Olitsky, FL · J. Olsen, MI · E. O'Niel, MI · F. Orlando, NY · S. Owens, MI · A. Paal, TX P. Panchal, NC · R. Parikh, IL · J. Parrott, MI · U. Patel, CA · D. Perkins, MI · N. Pelachyk, MI · W. Phillips, MI · S. Picazio, NJ · B. Picot, NC · C. Pike, MI · C. Piontkowski, MI · B. Pittsley, MI · J. Poskozim, IL · B. Pournaras, SC · A. Prince, UT D. Radtke, MI · G. Ramos, NY · C. Ramsey, FL · G. Rashall, TX · S. Reddy, MI · N. Rego, CA · J. Riggs, MI · J. Rowe, AR · J. Rubin, DC · D. Ruhlig, MI · A. Saddy, MI S. Salhadar, MI · P. Saurer, OH · P. Scalia, MI · C.Scanlon, MI · J. Schau, MI K. Schier,MI· V. Scola, CA · L. Seluk, MI · R. Selvan, NJ · Y. Shaheen, MI · M. Shapiro, MI · A. Shemesh, IN · S. Simos, IL · J. Slatkoff, FL · J. Smith, MI · C. Stevens, OK · B. Stevenson, MI · B. Stieper, MI · R. Surana, CA · G. Sutton, CA · S. Tamber, MI G. Tarantola, FL · T. Teel, IN · C. & L. Thorpe, MI · L. Trost, IL · S. Uchil, MI · A. Valentine, MI · H. Vann, MS · K. Vaught, MI · C. Vinkovich, OH · J. Weinfield, MI · B. Wilk, PA · K. Wilson, MI · D. Wolf, MA · W. Wright, CA · Y. Yi, MA · D. Young, MI · S. Yun, MI M. Yurth, WA J. Zanetti, MI · A. Zucker, OH

Laboratory Consultants:

Apex Dental Milling, MI