

THE DENTAL ADVISOR™

Improving Patient Care Through Research & Education

April 2016

Vol. 33, No. 03



Finishing & Polishing

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While resin composite and ceramic dental materials continue to evolve, finishing and polishing both types of restorations remains a necessary step in the restorative process. Finishing is required to adjust occlusion and contacts and remove flash. Polishing is necessary not only for providing an esthetic result but also to improve oral health by limiting plaque build-up, improving marginal integrity, and reducing/removing micro-fractures. Dentists continue to seek out more simplified and effective tools and methods to achieve these results.

This issue of THE DENTAL ADVISOR focuses on the available finishing and polishing kits and tools available for both composite and ceramic restorations. Data from our Dental Advisor Biomaterials Laboratory related to measuring gloss of these restorative materials are also included.

www.dentaladvisor.com

RATINGS :

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

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From the Desk of *Dr. Bunek, Editor-in-Chief*



In the last decade, significant advances have been made in resin composite and ceramic technology resulting in improvements in esthetics, color stability and physical properties. Today's restorative materials whether direct or indirect are built to last; however, if they are not properly finished and polished, a multitude of issues can arise. Poorly finished restorations can lead to plaque accumulation, gingival irritation, recurrent decay, and staining, to name a few. As a result, there is an increased demand for efficient and simple polishing techniques in order for clinicians to seal the restoration and maintain a natural luster and contour.

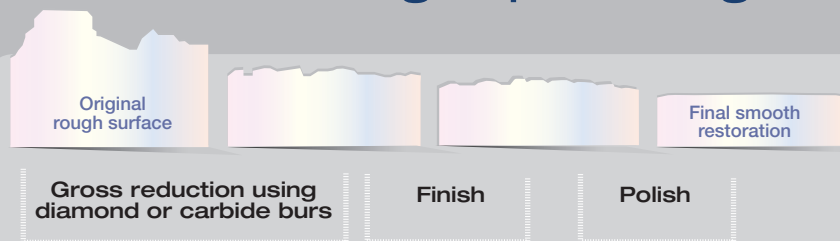
In this month's issue we define and address the benefits of finishing and polishing, discuss the different abrasives and techniques used, provide product information for both composite and ceramic kits, as well as let our readers know what our clinical consultants are using. As always, I welcome your comments and suggestions; you can reach me at drbunek@dentaladvisor.com.



Finishing vs. Polishing

Finishing and polishing tooth structures and restorative materials not only improve esthetics but also improve soft tissue health and increase the longevity of various restorative materials. While finishing and polishing are used synonymously, they are two separate steps with different desired outcomes. Finishing generally refers to using abrasives to achieve the final contour and occlusion of restorations, and polishing refers to the process of obtaining a smooth final surface.

Step-down approach to finishing & polishing



● **FINISHING** refers to gross contouring of restorations to obtain the desired contour and appropriate occlusion.

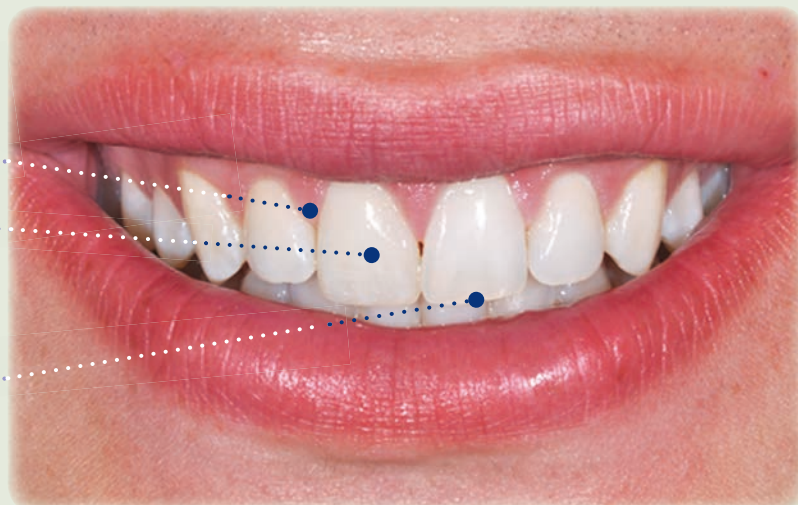
● **POLISHING** removes the finest surface scratches/imperfections using mild abrasives to produce a smooth, shiny surface.

Benefits of proper finishing and polishing

Smooth surfaces **resist bacterial adhesion** and plaque build-up.

Creates a **light-reflective surface**, enhancing the optical properties of the restoration.

Smooth surfaces **resist corrosion** and **decrease wear rates**. The rate of wear on composite resin and tooth structure opposing ceramic restorations is reduced with a proper finishing and polishing process.



Composite finishing & polishing systems

Composite finishing and polishing kits are available in diamond and aluminum oxide single-step and two-step systems. One-step systems are faster and more convenient; however, two-step systems provide a higher polish. These systems can be single-use (disposable) or multi-use (autoclavable) and are available in both aluminium oxide and diamond abrasives.

Composite finishing & polishing kits
evaluated by THE DENTAL ADVISOR

Product	Manufacturer	Steps	Abrasive Type	Single- or Multi-use	Clinical Rating
Dimanto	Voco	1	Diamond	Multi-use	96%
Gazelle Nano Composite Polishers (Satin)	Microcopy	1	Aluminum Oxide	Single-use	96%
Gazell Nano Composite Polishers (Hi-Gloss)	Microcopy	1	Diamond	Single-use	96%
Jazz Supreme Polishers	SS White Burs, Inc	1	Diamond	Multi-use	92%
KENDA BIG JOB	Kenda AG	1	Aluminum Oxide	Single-use	91%
KENDA G.P.S.	Kenda AG	2	Diamond	Both Available	92%
OneGloss PS	Shofu Dental Corp.	1	Aluminum Oxide	Single-use	91%
Super Snap X-Treme	Shofu Dental Corp.	4	Aluminum Oxide	Single-use	98%
Optrapol	Ivoclar Vivadent	1	Auminum Oxide	Multi-use	92%

Gazelle®
Microcopy
800-235-1863
www.gazellepolisher.com

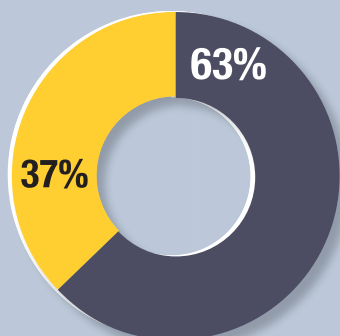


Description:

Gazelle® polishers from Microcopy are designed to polish today's nanocomposite and hybrid ceramic without crumbling. Inspired by a gazelle's agility and endurance, our exclusive Silitec™ process accomplishes both, producing a flexible polisher with durability. The Satin polisher is a workhorse for everyday restorations removing surface striations and defects. The Hi-Gloss quickly polishes the most demanding esthetic restoration to a wet luster gloss. Gamma sterilized for safety, single-patient-use for convenience, flexible yet strong—**Gazelle** goes the distance! Samples are available.

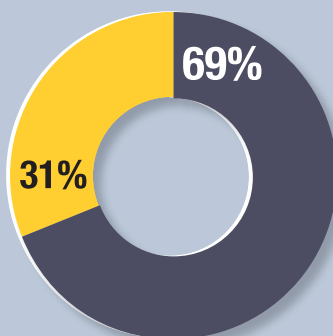
From the Field } Our clinical consultants report on what they use in daily practice

Anterior Composites



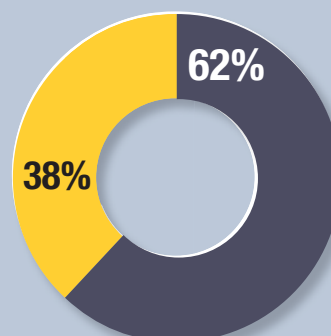
■ Single-step polishes
■ Multi-step polishes

Posterior Composites



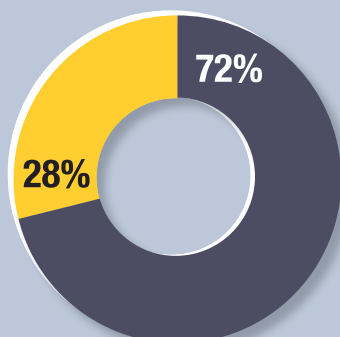
■ Single-step polishes
■ Multi-step polishes

Single-Use or Reusable Composite Polishers



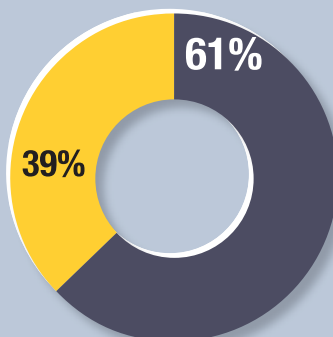
■ Reusable polishes
■ Single-Use polishes

Using Composite Polishing Paste



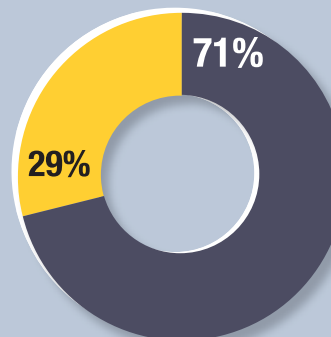
■ No
■ Yes

Polishing Lithium Disilicate and Zirconia



■ Use different polishes
■ Use the same polishes

Using Ceramic Polishing Paste



■ No
■ Yes

Consultant wish list ►►

"Polishers that maintain their shape and do not lose their edge."



"Polishing points that generate less heat."



"One-step system that can be reused but lasts, at a low cost."

"Polishers that have a universal color and code by grit, like endo files."



"Single-step polisher for porcelain and ceramics."



"One complete kit that has polishing stones, diamonds, pastes and discs for composites, plus lithium disilicate and zirconia. I would purchase this!"

Ceramic finishing & polishing systems

Finishing and polishing of a ceramic restoration must be completed if any adjustments were made after the restoration was received from the laboratory or milled in-office. Finishing and polishing systems are available in points, cups and discs and are offered in both aluminum oxide and diamond abrasive kits. Diamond abrasives are preferred for porcelain, ceramic, zirconia, and metals because they are more effective and durable. They generally come in three grits (coarse, medium, and fine).

Ceramic finishing & polishing kits evaluated by THE DENTAL ADVISOR

Product	Manufacturer	Steps	Abrasive Type	Clinical Rating
Jazz P3S Polishers	SS White Burs, Inc.	3	Diamond	91%
Luster for Lithium Disilicate	Meisinger	2	Diamond	92%
Luster for Zirconia	Meisinger	2	Diamond	91%

Q & A from our consultants . . .

Q. What is the best polishing system for anterior composites?

A. Because of the relatively large, flat facial surfaces of anterior teeth, discs work best in this area of the mouth. An example is **Super Snap X-Treme** (Shofu Dental Corp.), a newer system that produces a high quality result. This polishing system is composed of discs with four different grits that attach to the mandrel by a rubber cup on the back side of the disc, eliminating the metal center that is present in other disc systems.



Q. Is there a polishing paste that is safe to use on all-ceramic restorations?

A. Many prophylaxis pastes used by hygienists are abrasive in nature and can be harmful to ceramic surfaces. Manufacturers have designed specially formulated polishing pastes to protect ceramic restorations and maintain their luster. **DiaShine Intra Oral Diamond Polishing Compound** is a fine grit, 100% diamond polish for chairside use, and is indicated for use on ceramic, zirconia, metal, and acrylic. It should be used after finishing or adjustment to establish a high gloss surface. **DiaShine Intra Oral Diamond Polishing Compound** is water soluble, and only a minimal amount is necessary for a smooth and esthetic finish.

MEISINGER LUSTER®
Meisinger, USA, L.L.C.
www.meisingerusa.com

Description: **MEISINGER LUSTER®** for Zirconia polishing system has been specially developed for use on monolithic zirconium oxide restorations, e.g. **Lava™ Plus**. The system includes diamond polishers for intraoral and extraoral use. Both sets consist of a two-stage polishing system that can be used entirely without polishing paste and produces an excellent high gloss finish. Further instruments for adjusting contact points or areas round off the system perfectly. The instruments are well organized in the high quality bur block and can be conveniently sterilized after use.



MEISINGER LUSTER®
Meisinger, USA, L.L.C.
www.meisingerusa.com

Description: **MEISINGER LUSTER®** for Lithium Disilicate polishing system has been specially developed for use on lithium disilicate restorations. The diamond polishers included are suitable for intraoral and extraoral use. **LUSTER®** for Lithium Disilicate offers the user a two-stage polishing system entirely without polishing paste. The result is convincing with its brilliant high gloss. Further instruments for grinding contact points or areas round off the system perfectly. The instruments are well organized in the high quality bur block and can be conveniently sterilized after use.



Gloss Measurements: How They Are Made and What They Mean

Ron Yapp, M.S., J. M. Powers, Ph. D., Matt Cowen, B.S. • Dental Consultants, Inc., Ann Arbor, Michigan

Esthetics of a restoration can make the difference between a satisfied and dissatisfied customer. Finishing and polishing are key components of the final esthetic of the delivered restoration. For example, the gloss of the restoration should be similar to the adjacent teeth. It is achieved using appropriate finishing and polishing instruments.

What is Gloss? Gloss is a material property related to how well light is reflected from the material's surface. It is dependent on the material, its surface roughness, and the angle of illumination.

How is it measured? Gloss is measured using a gloss meter (see photo), which compares the intensity of light from a constant source to that reflected from the surface of the material being characterized. It can be used to compare surface finishing and polishing produced by various polishing systems and methods on various materials. For example, a reading of 95 gloss units would be representative of highly polished flat glass plate, whereas a reading of 2-5 gloss units would represent a reading for frosted glass. A "base-line" gloss specimen is one that has been ground flat with 320-grit silicon carbide or diamond paper to simulate the surface roughness that is similar to that produced by fine diamond burs which yields a gloss value of 4-5 gloss units. Finishing and polishing systems are then used on this "base-line" surface to determine how well they improve the surface finish and subsequently the measured gloss.



Sof-Lex™ Diamond
Polishing System
3M Oral Care
3m.com/soflex



Description: The **Sof-Lex™ Diamond Polishing System** is a two-step system that imparts a gorgeous diamond paste-like gloss in the convenience of a rubberized system. The system contains two spirals: The **Sof-Lex™ Pre-Polishing Spiral** (beige) smooths and removes scratches in restorations that develop during contouring and prepares the surface for final polishing. The **Sof-Lex™ Diamond Polishing Spiral** (pink) is embedded with diamond particles to deliver a gorgeous paste-like gloss. The flexible spirals adapt to all tooth surfaces— anterior and posterior, convex and concave and can be used from any angle.

POLISHETTE®
KENDA Dental Polishers
+423 3882311
www.polishette.com



Description: **Polishette®** are advanced, highly agile mini-shaped polishers for outstanding polishing results on all composite and hybrid-ceramic restoratives. They feature tapered shank necks and offer superior precision and visibility. The **Polishette** polishers were developed using profilometric surface analysis as well as gloss testing and are single patient use. This eliminates cross contamination, avoids cleaning and reprocessing costs and makes sure you always start with a perfectly shaped cup or point. With just 3 colors and 2 shapes of each one, Polishette effortlessly covers the critical finishing step of your restorations...every time.

Table: The table demonstrates how various finishing and polishing systems improve the gloss of several types of materials. **A value of 70 or greater gloss units provides an acceptable clinical result independent of the type of material.**

Finishing & polishing maximum gloss

Company	Finish & Polish System	# of Steps	Substrate*	Avg. Max Gloss & (SD)
3M	Sof-Lex Diamond (Disc spiral)	2	Composite	92 (1)
3M	Sof-Lex Diamond (Disc spiral)	2	Hybrid ceramic	93 (1)
Centrix	Couture Diamond Points (Cup)	2	Composite	92 (1)
Kenda	Polishette (Disc)	2	Composite	95 (1)
Kerr Dental	ProGloss (Disc)	1	Composite	92 (2)
Kerr Dental	CeraGlaze	3	Zirconia	158 (9)
Microcopy	Gazelle Polishers (Cup)	2	Composite	91 (1)
Microcopy	Gazelle Polishers (Cup)	2	Hybrid Ceramic	90 (2)
Premier	Diamond Twist SCO (Wheel)	1	Lithium Disilicate	99 (1)
Premier	Diamond Twist SCL ⁺ (Disc/Paste)	2	Lithium Disilicate	98 (1)

*Filtek Supreme Ultra Universal Restorative (3M)

**IPS e.max CAD (Ivoclar Vivadent, Inc.)

***BruxZir Solid Zirconia (Glidewell Dental Laboratories)

****Lava Ultimate (3M) CAD/CAM Restorative

Ranges

Substrate	Gloss, gu
Composite	91-95
Lava Ultimate	90-93
Zirconia	158

Couture Finishing & Polishing Kit

Centrix

www.centrixdental.com

Description: *Couture Diamond Finishing and Polishing Kit*

incorporates cups, points and brushes designed to finish and polish all types of composite restoration surfaces. **Couture Finishing and Polishing** line features Applied Diamond Technology (ADT), a unique and precise formulation of ultrafine diamond grit in an exclusive polymer base. The maximum fill of diamond abrasives applied to the product guarantees superior finished surfaces, with natural and authentic reflectance and luster. As a result, **Couture Diamond Finishing and Polishing Kit** provides faster contouring and shaping with easier and more precise polishing, for a smoother, highly opalescent restoration.



Herculite™ Ultra & Optibond XTR



Kerr Corporation

www.kerrdental.com

Description

Herculite™ Ultra is a nanohybrid composite available in both bulk syringe and Unidose delivery systems. It is a light-cured material designed for direct placement of all anterior and posterior composites with a wide variety of Enamel and Dentin shades available, including XL Enamel Shades for bleached and deciduous teeth and *Light Incisal Shades* for a high level of translucency. **Optibond™ XTR** is a self-etch universal adhesive system that includes a self-etch primer and adhesive. It is available in bottle and *Unidose* delivery systems and can be utilized for both direct and indirect restorations. It is compatible with all composites, self-cured and dual-cured resin cements and core materials. **OptiBond™ XTR** can also be used to prime metal, ceramic, and composite substrates, resulting in an improved bond.



*This product received a
98% clinical
performance rating*
at the 5-year recall.*

*The 'clinical performance rating' was obtained by finding the average of the values in each category in Figure 2 and dividing by the number of total categories.

Clinical Evaluation Protocol

During a five-year period, **165** restorations were placed with **Herculite™ Ultra** and **Optibond™ XTR** by four dentists. One hundred fifty-eight restorations were used in posterior teeth, with seven being placed in the anterior region.

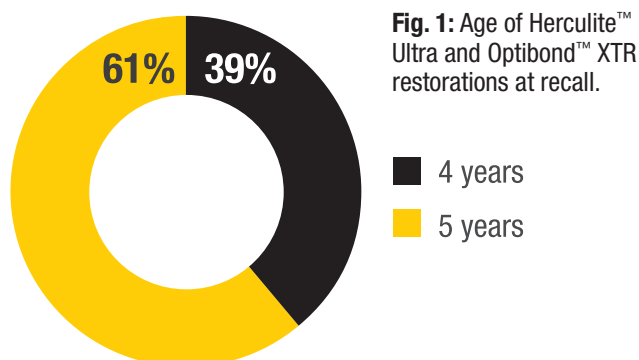
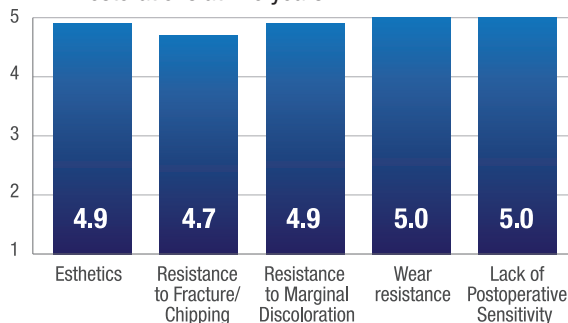


Fig. 2: Results of Herculite™ Ultra and Optibond™ XTR restorations at five years



Each category was rated on a scale of 1-5 rating scale:
1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

Results at Five Years

Of the **165** restorations that were recalled, **64** were in function for four years and **101** were in function for five years. The recalled restorations were evaluated for: esthetics, resistance to fracture/chipping, resistance to marginal discoloration, wear resistance, and lack of postoperative sensitivity as reported by patients.

Consultants' Comments

- *“Herculite™ Ultra blends nicely with surrounding tooth structure.”*
- *“I like the expanded uses of Optibond™ XTR as a universal bonding system.”*
- *“I have been a Herculite™ user for many years and have been very happy with it. Herculite™ Ultra is even better.”*

Clinical Observations

Esthetics

Esthetics was rated excellent. The vast majority of restorations blended very well with the surrounding tooth structure. Five percent of the restorations were judged to be opaque.

Resistance to Fracture/Chipping

Resistance to fracture/chipping was rated excellent. During the evaluation period, 9 of 165 restorations were noted to have fractured or chipped, four of which were large restorations and required replacement with crowns. All restorations that experienced fracture or chipping were in posterior teeth. None of the chipped restorations required replacement and all fractures/chipping occurred at 4-year recall or after.

Resistance to Marginal Discoloration

Resistance to marginal discoloration was rated excellent. One restoration (#15 MOD) was replaced with a crown due to recurrent decay unrelated to the composite. Another restoration had staining at the margin, which was successfully removed by repolishing it.

Wear Resistance

Wear resistance was rated excellent, with only one restoration requiring replacement at two years because the patient was a heavy bruxer and the opposing tooth had a zirconia crown.

Lack of Postoperative Sensitivity

Lack of postoperative sensitivity was rated excellent. Only one report of sensitivity was noted at a one-year recall and the sensitivity subsided later.

Summary

Herculite™ Ultra and **Optibond™ XTR** performed well at the five-year recall. Restorations received excellent ratings for esthetics, resistance to fracture/chipping, resistance to marginal discoloration, wear resistance, and lack of postoperative sensitivity as reported by patients. **Herculite™ Ultra** and **Optibond™ XTR** received a 98% clinical performance rating at five years.

Herculite Ultra™ and Optibond™ XTR performed exceptionally well in all categories.



Crest+Oral-B

Procter & Gamble

www.dentalcare.com

Suggested Retail Cost: \$159.99/kit

Description

The **Oral-B® PRO 5000 SmartSeries™** is the world's first rechargeable electric toothbrush with Bluetooth® 4.0 Connectivity that works with the **Oral-B® App**, available as a free download for Apple and Android smartphones. Once connected to Bluetooth, users can customize their oral hygiene regimen by setting goals and receive real-time feedback regarding their brushing habits. The app automatically tracks and stores the last 30 brushing sessions. The brush has five cleaning modes: Daily Clean, Gum Care, Sensitive, Whitening, and Deep Clean. The *3D Cleaning Action* oscillates, rotates and pulsates to break up and remove plaque. A systematic review by the independent Cochrane Collaboration group in 2014 concluded that oscillating-rotating, the technology used by Oral-B power brushes, was the only type of power brush that consistently reduced plaque and gingivitis more effectively than manual toothbrush in both the short and long term. The **Oral-B PRO 5000 SmartSeries** also has a pressure sensor which alerts the user when too much pressure is applied and an in-handle timer which pulses every 30 seconds to remind the user to move to another quadrant thus promoting a 2-minute cleaning. In fact, research has shown that users who use this Oral-B Bluetooth enabled brush together with the **Oral-B App** brush for 2 minutes 24 sec on average!

The package includes the rechargeable toothbrush handle, a CrossAction™ brush head, a charging station with brush head storage, and a travel case. Five additional brush heads were included in this evaluation: *Floss Action*, *Pro White*, *Sensitive Gum Care*, *Deep Sweep*, and *Interproximal Clean*. **Oral-B PRO 5000 SmartSeries** was used daily by 46 dental professionals during a 60-day evaluation period. This electric toothbrush received a 91% clinical rating.



“The Oral-B App is very useful with adults trying to form better habits and kids/teenagers who need help.”

Product Features

The **Oral-B PRO 5000 SmartSeries** with the **Oral-B App** appeals to patients who regularly use smartphones as part of their lifestyle. **The Oral-B PRO 5000 SmartSeries**

is a versatile toothbrush with five cleaning modes and numerous brush head options, allowing users to customize their brushing experience. The triple pressure sensor control is a valuable feature of the **Oral-B PRO 5000 SmartSeries**. When too much pressure is applied to the teeth, a red light on the handle is illuminated, the speed of the brush head decreases, and the visual signal on the **Oral-B App** cautions the user to apply less pressure. The countertop charger has a clean appearance with brush head storage, and the fully charged handle allows for approximately 2 weeks of regular brushing. **The Oral-B App** is a useful tool for patients to encourage proper brushing at home. Using the app for even a short period of time can help patients form better brushing habits. The timer and instructions provide incentive to make sure users systematically brush each quadrant of the mouth thoroughly. The app also serves as a tool for dental professionals to engage their patients better. The enhanced professional guidance feature provides the patients with customized care depending on their needs. Additionally, the focused care feature allows the dental professional to select specific areas of the mouth to add focused brushing time for the patient. The customized brushing routines enhance compliance with dental professional-recommended oral hygiene.



Consultants' Comments

*"The **Oral-B App** is very useful with adults trying to form better habits and kids/teenagers who need help."*

"The pressure sensor is brilliant for patients with recession."

"The techies in our practice love it!"

*"The **Oral-B PRO 5000 SmartSeries** with the **Oral-B App** made me brush longer and remember to floss and rinse."*

"Battery charge lasts a long time, and travel case is convenient."

"The app was like having a personal trainer - even if you know what you're doing, it's helpful to have someone hold you accountable."

"My teeth felt really clean, like I had just been seen by the dental hygienist."

"The brush resets to the Daily Clean mode after each use. The app must be visible to change the mode."

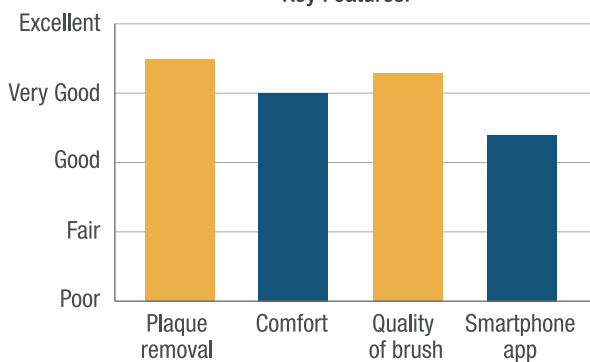
"The blinking blue LED charging indicator is extremely bright - like having a police car in the bathroom."

"At times Bluetooth communication was lost during the brushing process and the app would report a false short-brushing sequence."

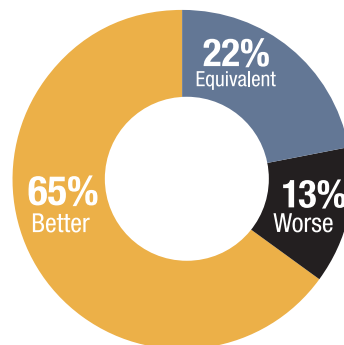
"The app can only track one brush at a time. It would be nice for a family to keep track of multiple users."

"Include a phone holder on the charging base."

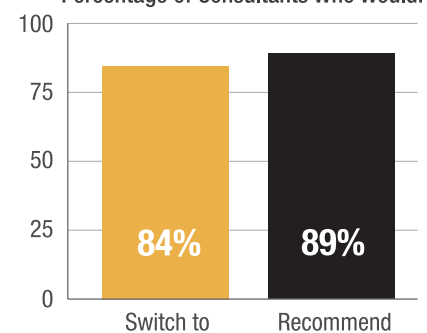
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



"The app was like having a personal trainer - even if you know what you're doing, it's helpful to have someone hold you accountable."

Cavex Bite & White Tooth Whitening Pen



Cavex Holland BV
www.cavex.nl

Description

The **Cavex Bite & White Tooth Whitening Pen** is a “brush-on” whitening tool designed to be used anywhere at any time. The pen can be used for complete whitening of upper and lower jaw or for isolated touch-ups and difficult to reach spots. The gel contains up to 6% hydrogen peroxide and may be applied to teeth twice a day. The hydrogen peroxide is added in the formulation as PVP-peroxide (polyvinylpyrrolidone), which offers stability of the viscosity and potency of the peroxide also at room temperature. In presence of water (in the mouth), the PVP forms hydrogen peroxide which breaks down rapidly into oxygen radicals and water. **Cavex Bite & White Tooth Whitening Pen** was evaluated by 30 consultants and 44 patients. This whitening pen received an 86% clinical rating.

Product Features

Cavex Bite & White Tooth Whitening Pen offers a convenient option to tooth whitening, avoiding the need for chair time and impressions. The brush-on gel dries on the teeth in one to two minutes, forming a virtually undetectable film that whitens the teeth. Many patients noticed positive whitening results, and **Cavex Bite & White Tooth Whitening Pen** performed well as a touch-up after in-office bleaching. Little to no sensitivity was experienced by users, increasing compliance. Dentists enjoyed the stylish packaging and thought that **Cavex Bite & White Tooth Whitening Pen** would make a great promotional item to give to patients.

Clinical Tips

- Do not eat, drink or smoke for at least 30 minutes after each treatment.
- Store pen at room temperature.



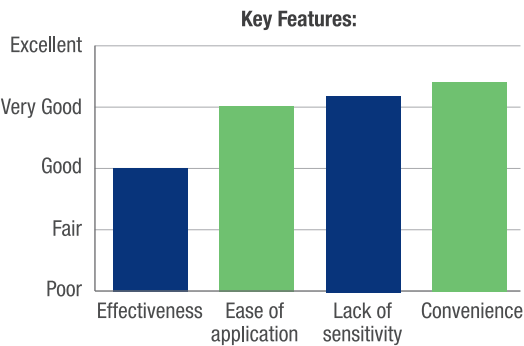
Suggested Retail Cost:
\$12.50/2mL pen

Consultants' Comments

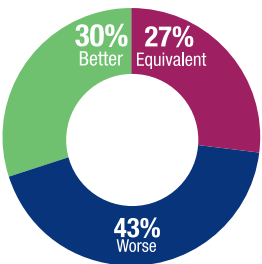
- “Attractive and compact design.”*
- “I like not having to take impressions and make custom trays.”*
- “Effective application onto proximal surfaces.”*

Patients' Comments

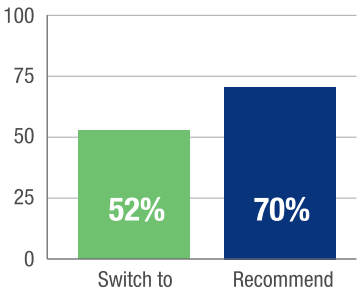
- “Keeps my teeth white after a full bleaching treatment.”*
- “The pen is much easier to use than whitening strips.”*
- “It feels good in the hand, like a very well made product.”*
- “Not the fastest whitening, but the convenience is worth it.”*
- “The taste is a little bitter.”*



Compared to Competitive Products:



Percentage of Consultants Who Would:



Irritrol Two-In-One Irrigation Solution

++++ 1/2

Essential Dental Systems

www.edsdental.com

Description

Irritrol Two-In-One Irrigation Solution is a single-step, endodontic irrigation solution formulated for use as a final rinse after sodium hypochlorite (NaOCl). **Irritrol** contains chlorhexidine (CHX) and EDTA to disinfect the root canal and remove the smear layer. **Irritrol** should be dispensed from an irrigating syringe into the canals and continuously irrigate for 60 seconds. **Irritrol** is formulated to flow into dentinal tubules due to reduced surface tension. Its bright green color aids differentiation from other irrigants. **Irritrol** was evaluated by 25 consultants in 424 uses. This endodontic irrigating solution received a 91% clinical rating.



Consultants' Comments

*"During irrigation with **Irritrol**, an amazing amount of debris is eliminated from the canal. I could see it bubble out."*

"The green color makes it easy to identify and differentiate from other irrigating solutions."

"Simplicity of using our two favorite irrigation products with one solution."

"No waiting period for solution to work."

before drying the canals, shortening the procedure time. **Irritrol** combines two widely accepted products to achieve cleaning and disinfection of canals. Dental assistants liked the green color, as it provided visual identification once loaded into a syringe. Simple packaging, room temperature storage and a long shelf life add to the convenience of this product.

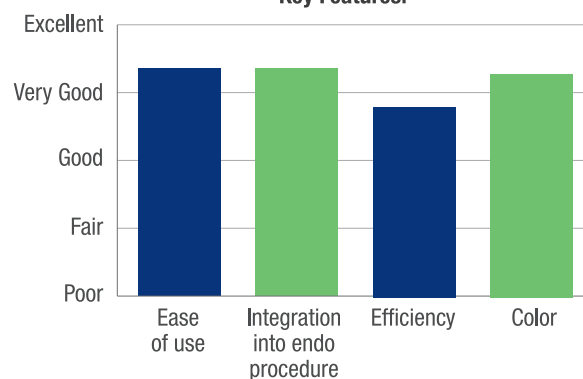
Clinical Tip

- Remove residual NaOCl from canals by rinsing with sterile water or anesthetic before using **Irritrol**. This is important to prevent an orange-brown parachloroaniline (PCA) precipitate formed by a reaction between NaOCl and CHX.

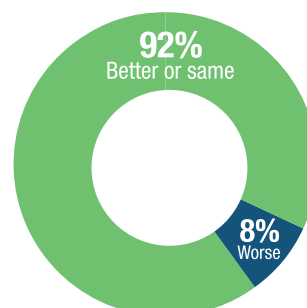
Product Features

Irritrol is pre-mixed and always ready to use. This single solution rinse is quick and efficient with no waiting period required

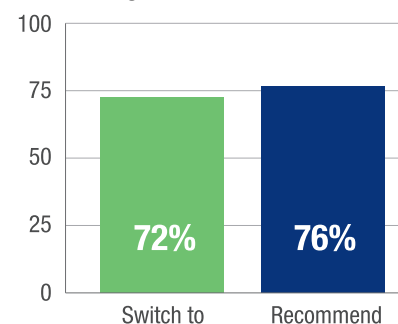
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Good Vibrations



Certel International
www.certol.com

Description

Good Vibrations is a highly-concentrated instrument cleaning solution designed for use in ultrasonic cleaners. It provides quick and thorough removal of a wide range of debris while protecting instruments with anti-corrosives. **Good Vibrations** utilizes an odor suppressant to neutralize organic and chemical odors and has a light mint scent. It is biodegradable and contains no phosphates. The dilution ratio is one ounce of solution per gallon of water. The one-gallon bottle with metered pump was evaluated; it is also available in a box of 24 unit-dose packets. **Good Vibrations** was evaluated by 32 consultants in 816 uses. This ultrasonic cleaning solution received a 96% clinical rating.

Suggested Retail Cost \$22.50/gallon bottle with pump

Product Features

Good Vibrations is a detergent-based cleaner that meets the demand for non-enzymatic, more environmentally friendly products. It does an excellent job of cleaning organic and non-organic debris from instruments, leaving a clean, shiny surface. Testing at THE DENTAL ADVISOR confirmed that it effectively removed even dried-on blood and saliva. It is non-corrosive and safe for jointed instruments and cures. **Good Vibrations** rinses easily.

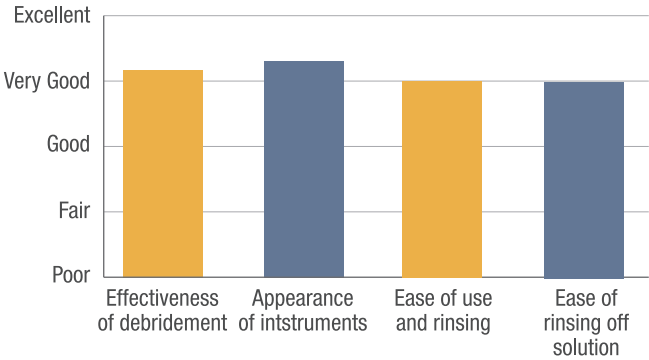
Consultants' Comments

- "As soon as you put the instruments in the solution you could see it start working."
- "Instruments come out shiny and clean."
- "It mixed into the water well and was easily washed off the instruments."
- "Works great on burs and surgical instruments."
- "The ease of one pump into the ultrasonic made easy incorporation into the office."

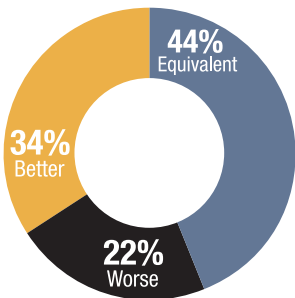
Clinical Tips

- To avoid foaming, fill the ultrasonic tank with water first then add the concentrate.
- Do not use **Good Vibrations** to clean evacuation lines.
- Change solution at least daily.

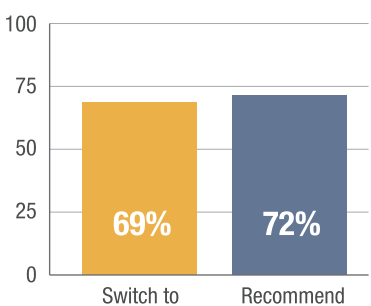
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Mini Ergo and Mini 90

Disposable Prophy Angles

++ ++

Pac-Dent International

www.pac-dent.com

Description

Mini Ergo and **Mini 90** Disposable Prophy Angles are equipped with a small head and feature a slim profile. The **Mini Ergo** and **Mini 90** are designed to provide increased visibility and better access to all areas of the mouth. The prophy cups are latex free and have internal webs and external ribbing. The **Mini Ergo** has a contra-angle head, and the **Mini 90** has a right-angle head. Both versions come in a choice of three prophy cup designs: Firm, Soft, and Pedo. The angles are individually packaged and are Gamma-irradiated for patient safety, reducing the risk of infection. **Mini Ergo** and **Mini 90** were evaluated by 31 consultants in 1,905 uses. These disposable prophy angles earned an 88% clinical rating.

Clinical Observations

The small size and narrow neck allow access to tight spaces, especially the buccal surfaces of maxillary molars. **Mini Ergo** and **Mini 90** are well built with a sturdy feel. The angles run smoothly and quietly. The **Mini Ergo** is angled similar to a dental instrument for ease of positioning; the **Mini 90** head is at a right angle to the shank, like traditional prophy angles. The ribbing on the external surface of the cup aids in efficient polishing by adapting to concavities and embrasures. Minimal splatter is produced. The firm cup has less adaptation to subgingival areas.

Clinical Tips

- Use the Pedo size **Mini Ergo** to polish around ortho brackets.
- Angles are color coded by cup style: Firm is a champagne color; Soft and Pedo are turquoise.



STERILE

Consultants' Comments

"The smaller size is excellent for visibility."

"Overall performance of the angle is very smooth."

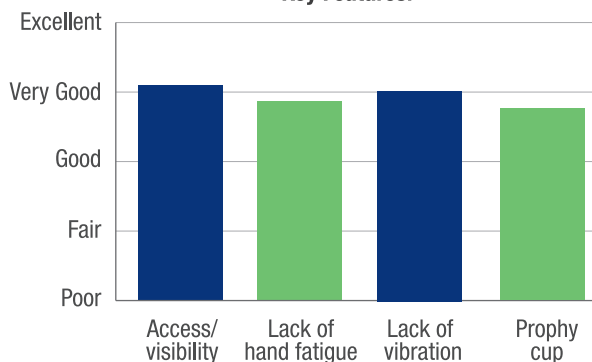
"I like that they are pre-sterilized."

"Soft cup is just right for all of my patients."

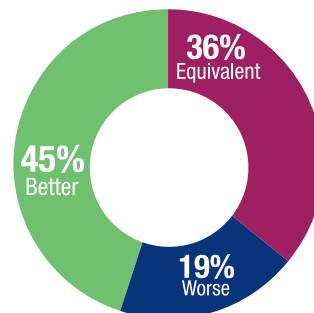
"I was very pleased with the quietness of this angle."

"The cup adapts to teeth and does not get hot."

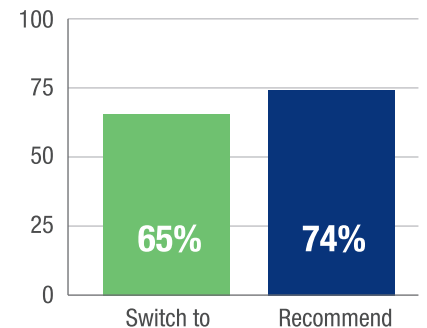
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



SINGLES by Meisinger

Meisinger USA, L.L.C.

www.meisingerusa.com



++++ 1/2

Description

"SINGLES" carbides by Meisinger are pre-sterilized and packaged individually to save time and avoid cross-contamination. **Meisinger "SINGLES" carbides** come in boxes of 25 individually packaged, sterile burs and are available in a wide variety of shapes and sizes. **"SINGLES" by Meisinger**, Cylinder 557 and Pear 330 styles, were evaluated by 24 consultants in 790 uses. These carbide burs received an 91% clinical rating.



Suggested Retail Cost

\$42.50/per pack of 25

Consultants' Comments

"They cut incredibly fast and efficiently."

"The best packaging I have seen."

"SINGLES by Meisinger have converted me to single-use burs."

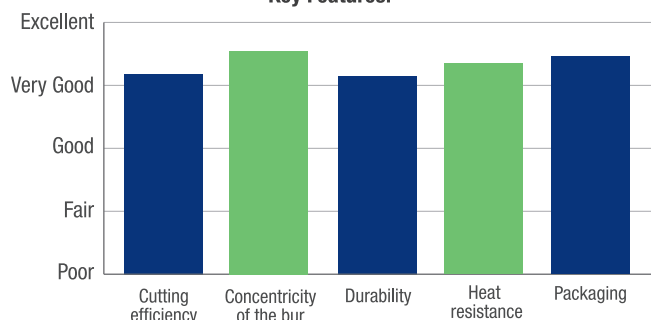
"The sides of the burs seemed sharper than the ends."

"Some burs seem sharper than others."

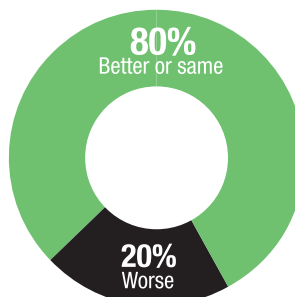
Clinical Observations

"SINGLES" by Meisinger are packaged in easy-to-open packets that allow visual identification and ensure a new bur for each patient use. The pre-sterilization is an important feature to dentists and assistants, eliminating the need for autoclaving prior to first use. The slim packaging is easy to store in operatories and is well labeled. Cutting efficiency of the burs received high ratings by many consultants but was inconsistent for some. Having a pre-sterilized and sterile packed bur upon first use can increase the clinical efficiency, enhancing patient care, and decrease chair side time with each patient.

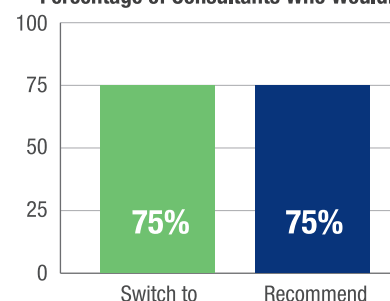
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



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Senior Clinical Consultants (15-19 years):

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