



CRA Foundation Has Expanded Goals, New Name—CR Foundation™

Effective January 2008, CRA Foundation Newsletter was renamed *Gordon J. Christensen CLINICIANS REPORT™* with changes in style, format, and color in all languages presently circulated in 90 countries. The name change reflects an expanded direction for the non-profit **CR Foundation™**. It includes the team effort of **Dentist Project Directors**, in-house **Basic Scientists**, trusted practitioners serving as **Cyber Evaluators**, the current team of **400 In-Office Evaluators**, and thousands of clinicians reporting their experiences with products they

have purchased, all to provide you with fast, broad, in-depth research and clinical observations of interest to you and your patients. We feel confident you will be pleased with these expanded services.

The need to evaluate products in an unbiased, privately sponsored, non-profit organization is greater than ever before! You can depend on CLINICIANS REPORT to fill that need every month.

Thank you for your continuing support!

The new CR format introduces major topics on page 1 with report details on subsequent pages.

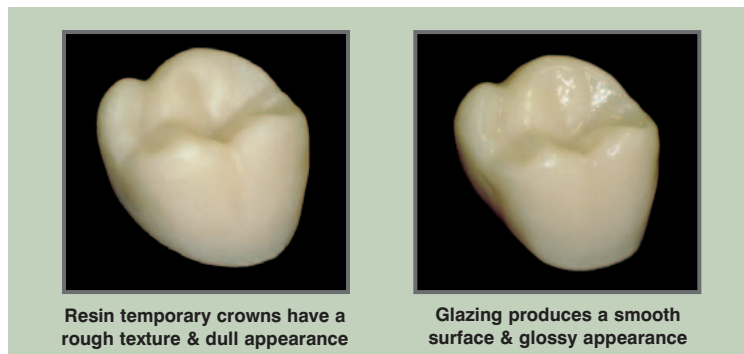
Glazing Resins: Are They Important And How Do They Differ?

Gordon's Clinical Bottom Line: Glazing resins are needed for everyday situations such as: filling and sealing open margins caused by shrinkage of resin-based composites (*the superficial glaze wears off; but the marginal crevice glaze remains*); providing a slick, shiny surface on otherwise dull or rough provisionals; and protecting restorative materials that are soluble when initially placed such as glass ionomers and resin-modified glass ionomers.

Low-filled and unfilled resins, commonly called glazes, liquid polishes, sealers, etc., are promoted for a myriad of intraoral, extraoral, and lab uses, including:

1. **Sealing margins** of new and old, direct and indirect, resin-based composite restorations and resin-modified glass ionomers.
2. **Glazing the surface** of restorations and temporary materials to improve esthetics and reduce the need to finish and polish.
3. **Bonding and repair** of various prosthodontic materials and acrylic appliances.
4. **Sealing cracks and defects** in natural tooth structure.

There are many brands available with a variety of properties and clinical characteristics. The latest developments include elimination of the oxygen inhibition layer and improved resistance to staining. The chart

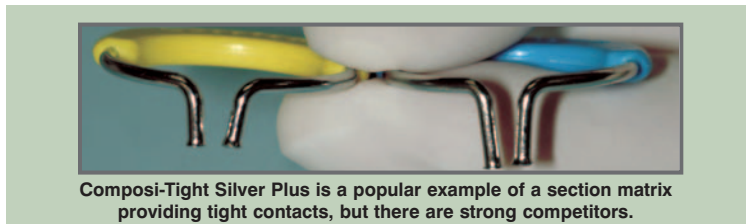


on page 2 compares cost and features of 13 brands of glazing resins, and gives CR Conclusions.

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Matrix Bands: Achieving Tight Contacts In Varying Situations

Gordon's Clinical Bottom Line: Sectional matrices have nearly solved the open contact problem associated with direct resin-based composite restorations. The following excellent matrices differ in design and are useful for either wide or narrow box forms or for universal use depending on specific needs.



Traditional Tofflemire matrices are usually inadequate to produce tight contacts with direct resin-based composite restorations. Fortunately, several matrix systems are available to restore proper contacts both in form and function. The chart on page 3 compares four products that solve the dilemma of open contacts caused by improper placement of resin-based composites and problems associated with matrix application.

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Clinical Evaluators Reports

QwikStrip: Interproximal stripping/finishing system.

Reports are on page 4

Touch Free Soap/Sanitizer Dispenser: Liquid soap or sanitizer dispenser eliminates cross-contamination.


Glazing Resins: Are They Important And How Do They Differ? *(Continued from page 1)*

The following chart characterizes 13 glazing resins grouped by general application. Within each group, brands are listed in order of most desirable features.

Brand & Company	Cost	Manufacturer's Primary Indications for Use	Contains Filler	Viscosity	Dispenser & Applicator	Smooth, Thin Layer	Initial Appearance	Oxygen Inhibition Layer	Stain Resistance	LED Compatible	Overall Rating
G-Coat Plus G.C America 800-323-7063 www.gcamerica.com	\$58.50/Kit 4 ml bottle (\$14.60/ml)	• Direct composites • Indirect restorations • Temporary materials	Yes	Thin	Bottle & Micro Applicator	Excellent to Good	Good	No	Excellent to Good	Yes	Excellent
BisCover LV Bisco 800-247-3368 www.bisco.com	\$75/Kit 5 ml bottle (\$15/ml)	• Direct/Indirect • Temporary materials • Tooth structure • Acrylic appliances	No	Thin	Bottle & Brush	Excellent	Good	No	Good	Yes	Excellent
DuraFinish Parkell 800-243-7446 www.parkell.com	\$53.99/Kit 5 ml bottle (\$10.80/ml)	• Direct composites • Temporary materials	Yes	Thick	Bottle & Brush	Excellent to Good	Good	No	Excellent to Good	No	Excellent
Lasting Touch Dentsply Caulk 800-532-2855 • www.dentsply.com	\$105/Kit 5 ml bottle (\$21/ml)	• Direct composites • Indirect restorations • Temporary materials	Yes	Thin	Bottle & Micro Applicator	Good	Good	Yes Tacky	Good	Yes	Excellent to Good
PermaSeal Ultradent Products 800-552-5512 • www.ultradent.com	\$35.99/Kit 4x 1.2 cc syringes (\$7.50/ml)	• Direct composites	No	Medium	Syringe & Flocked Tip	Excellent	Excellent to Good	Yes Wet	Fair	Yes	Excellent to Good
Fortify Plus Bisco 800-247-3368 • www.bisco.com	\$36/Kit 2x 1.5 g syringes (\$15.50/ml)	• Direct composites • Indirect restorations • Temporary materials	Yes	Thick	Syringe & Flocked Tip	Good to Fair	Good	Yes Wet	Poor	Yes	Good
OptiGuard Kerr 800-537-7123 • www.kerrdental.com	\$119.95/Kit 2x 5 ml bottles (\$12/ml)	• Direct composites	No	Medium	Bottle & Micro Applicator	Excellent	Good	Yes Wet	Fair to Poor	Yes	Good
Embrace WetBond Seal-n-Shine PulpDent 800-343-4342 • www.pulpdent.com	\$69/Kit 6 ml bottle (\$11.50/ml)	• Direct/Indirect • Temporary materials • Tooth & ceramics	No	Thick	Bottle & Brush	Excellent	Good to Fair	Yes Wet	Poor	Yes	Good
Fortify Bisco 800-247-3368 • www.bisco.com	\$32/Kit 5 ml bottle (\$6.40/ml)	• Direct composites • Indirect restorations • Temporary materials	No	Medium	Bottle & Brush	Good to Fair	Fair	Yes Wet	Fair	Yes	Good
QuikGlaze All Dental ProDX 877-647-7639 • www.alldentalprodx.com	\$54.95/Kit 5 ml bottle (\$11/ml)	• Temporary materials • Acrylic bonding/ repair	No	Thin	Bottle & Brush	Excellent	Excellent to Good	No	Excellent to Good	No	Excellent to Good
SternVantage Varnish LC SternGold 800-243-9942 • www.sterngold.com	\$49/Kit 30 ml bottle (\$1.60/ml)	• Temporary materials • Lab composites • Acrylic bonding/ repair	No	Thin	Bottle & Brush	Excellent	Good	No	Excellent to Good	No	Excellent to Good
ExactaGlaze Exacta Dental 800-474-7665 • www.exactadental.com	\$64.95/Kit 6 ml bottle (\$10.83/ml)	• Temporary materials	Yes	Thick	Bottle & Brush	Excellent to Good	Good	Yes Tacky	Fair	Yes	Excellent to Good
TempSpan Glaze Pentron Clinical 800-551-0283 • www.pentron.com	\$65.50/Kit 6 ml bottle (\$10.90/ml)	• Temporary materials	Yes	Thick	Bottle & Brush	Excellent to Good	Good	Yes Tacky	Fair	Yes	Excellent to Good

INTRAOURAL & EXTRAORAL USE

EXTRAORAL/LAB USE ONLY

 indicates products with best combination of features.

Summary of Chart & Clinical Implications

Cost: Cost ranged from about \$2 to \$21 per milliliter. Fortify was best buy for intraoral use; SternVantage Varnish LC was best buy for extraoral/lab use.

Contains Filler: About half contain some filler which can improve wear resistance.

Viscosity: Thick resins had more controlled handling, while thin resins produced a thinner coat & flowed into tight spaces better. Personal preferences vary.

Dispenser & Applicator: Syringe dispensing was least messy. Brushes gave better access into tight spaces than micro applicators & could be used with any product, as needed.

Smooth, Thin Layer: Applying a smooth, thin layer was best achieved by wiping excess resin from applicator & applying in single smooth stroke. Lower ratings indicate greater technique sensitivity where resin had to be left thicker or greater care was needed to avoid leaving brush marks. With practice, all can give satisfactory results.

Initial Appearance: Appearance was judged immediately after freshly placed resin was brushed with toothbrush & paste. Initial gloss is typically lost in a few days to weeks as low-filled resins wear off surfaces.

Oxygen Inhibition Layer: Most had a tacky or wet layer that required washing or removal with alcohol. Resins with no discernible layer typically had higher initial gloss & better stain resistance. BisCover LV, DuraFinish, QuikGlaze, SternVantage Varnish LC, & G-Coat Plus had least oxygen inhibition. Clinical placement on occlusal margins is best done with products without oxygen inhibition since thickness can be observed to avoid affecting occlusion.

Stain Resistance: Resins were subjected to red wine, coffee, mustard, blueberries, green tea, balsamic vinegar, & ultraviolet light. None were impervious, but DuraFinish, QuikGlaze, SternVantage Varnish LC, & G-Coat Plus were most stain resistant.

LED Compatible: Most were compatible with narrow-spectrum LED lights. Transparent, low-filled resins often need more time to polymerize than traditional restorative composites. Care should be exercised to ensure adequate polymerization.

Overall Rating: All were clinically useful for some purposes & were rated good or better. Clinicians can base purchase decision on specific features desired & cost.

CR Conclusions: All 13 brands of glazing resins tested were clinically useful and produced sealed surfaces with improved initial esthetics. Major advances were elimination of oxygen inhibition layer and improved stain resistance. Overall, G-Coat Plus, BisCover LV, and DuraFinish demonstrated best combination of features for clinical use.

Matrix Bands: Achieving Tight Contacts In Varying Situations (Continued from page 1)

While resin-based composites have evolved over the years to an acceptable functional and esthetic level, the problem of open contacts with class II restorations continues to be a major clinical frustration for

many. The following four matrix systems have demonstrated the ability to facilitate tight contacts with direct resin-based composite restorations.



Brand & Company	V-Ring Sectional Matrix Triodont 800-811-3949 www.triodent.com	Composi-Tight Silver Plus Garrison Dental Solutions 888-437-0032 www.garrissdental.com	Contact Matrix Danville Materials 800-827-7940 www.danvillematerials.com	Greater Curve Tofflemire Band Greater Curve 866-493-3437 www.greatercurve.com
CR Choice for:	Universal & wide box forms	Narrow box forms	Wide box forms	Universal or MOD
Type	Sectional matrix	Sectional matrix	Sectional matrix	Circumferential matrix
Design	Unique, strong design consisting of a stainless steel ring & a nickel-titanium center collar that allows for greater tooth separation. The V-shaped tines allow space for the wedge & adaptation of the matrix around the tooth.	Improved version of Composi-Tight Gold. Combines advantages of the Gold & the original Composi-Tight systems. New design with plastic support prevents overspringing of the ring.	Bitine Ring design with matrix system allows for stacking of rings & increased retention.	Tofflemire band with unique curvature for composite restorations. Flaring of the coronal aspect allows for easy access & vision.
Advantages	<ul style="list-style-type: none"> Predictable, tight contacts Good adaptation to the tooth Good tooth separation Easy to use Eliminates interference from the wedge Forceps for ring placement Educational CD & online program 3 sizes of matrices with holes to aid in placement with a pin forceps Various wedge products available 	<ul style="list-style-type: none"> Predictable, tight contacts Good adaptation to the tooth Good tooth separation Standard & long-tine G-rings Many size matrices to choose from Forceps for ring placement New forceps for matrix placement & removal 	<ul style="list-style-type: none"> Predictable, tight contacts Good adaptation to the tooth Good tooth separation Stiff ring design Original design used for many years Forceps for ring placement Two separate forceps for matrix placement & removal 	<ul style="list-style-type: none"> Predictable, tight contacts Excellent adaptation to the tooth Wedges often not required Easy to use Anterior and posterior applications Cost – least expensive initial investment Use with ordinary Tofflemire holders Control of the contact point Can be used when difficult matrix placement is expected
Disadvantages	<ul style="list-style-type: none"> Initial cost More difficult to use with tight interproximal contacts Learning curve Not as easy to use with multiple proximals 	<ul style="list-style-type: none"> Difficult for wider preps (<i>tines fall into prep</i>) Difficulty in placing ring over wedge Learning curve 	<ul style="list-style-type: none"> Difficult for narrow preps Difficulty in placing ring over wedge Learning curve Elasticity of the rings 	<ul style="list-style-type: none"> Needed separation made by wedge Learning curve with technique of burnishing & cutting opening at contact point with finishing bur Some evaluators desired thinner material
Matrix Band Thickness	30um (0.0012 inches)	32.5um (0.0013 inches)	37.5um (0.0015 inches)	37.5um (0.0015 inches)
Cost	\$399/Intro Pack: 3 v-rings, 150 tab-matrix (50 each 4.5mm, 5.5mm, 6.5mm), wedge multi-pack, forceps, & 1 pin tweezers Refill: \$65/100 tab matrices Refill: \$211/3 v-rings	\$274/Kit: 350 matrix bands, 6 rings, & forceps Refill: \$41/100 bands Refill: \$41/50 sub-gingival bands Refill: \$53/3 rings	\$199.95/Kit: 6 rings, 100 small bands, 100 large bands, forceps, & contact wedge ring plier. Refill: \$36.95/100 bands (small or large) Refill: \$19.95/2 rings	\$36.50/96 bands (38¢ each)
Cost/application after initial investment	65¢/Matrix	41¢/Matrix	37¢/Matrix	38¢/Matrix

Comments

CR evaluated most popular matrix forms. Numerous matrix systems not included here also have benefit for the practitioner. A variety of techniques & products are available that can assist in restoring a class II preparation. These include the use of elastic interdental wedges (*Contact Wedge/Danville Materials*), combining the Greater Curve Band with the

V-Ring, the utilization of the Ho Band (.001 inch thick/*Ho Dental*) in place of a sectional matrix band, & the use of interproximal contact formers (*ContactFormer/Envision Dental & Contact Pro Plus/Clinicians Choice*). Although each matrix system offers distinct advantages, one technique may not be applicable for all situations.

CR Conclusions: All four matrix systems reported here are useful in producing tight, anatomic interproximal contacts with resin-based composites. The Greater Curve Tofflemire Band has emerged as a technique using the well-known Tofflemire configuration. The V-Ring Sectional Matrix continues to gain popularity due to its ease of use and innovative design.

Clinical Evaluators Reports

“Clinical Success is the Final Test”

QwikStrip (New Additional Designs)

Gordon's Clinical Bottom Line: Thin metal finishing strips have many uses. Some cut on one side only; some cut on both sides. This brand does both, is easily held, and now has curved strips.

Use of finishing strips often accidentally cuts either the patient or the clinician. Frequent uses for strips are trimming and finishing proximal surfaces of composites, amalgams, and crowns, as well as removal of calculus, contouring proximal enamel, stripping for orthodontics, breaking contact areas, etc. Recently, **QwikStrip** added new designs to already well accepted single-sided product (*CRA Newsletter Jan. '07*).

Original: Single-sided thickness*: 50um (*serrated edge only*), 80um, 100um, 140um, 180um (*0.002–0.007 inches*)

New: Double-sided thickness*: 180um, 200um, 220um, 350um; (*0.007–0.014 inches*)

New: Curved and single-sided thickness*: 80um, 100um, 140um, 180um; (*0.003–0.007 inches*)

Advantages:

- Excellent grip compared to typical strips
- Color coded
- Minimal thickness
- Four grits
- Autoclavable (*steam or chemical vapor*)

Disadvantages: None noted.

QwikStrip



Axis Dental

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Coppell TX 75019 USA

800-355-5063
469-635-6100
Fax: 469-635-6600
www.axisdental.com

\$60.85/10 strips

* Thickness includes finishing particles. For comparison, a typical clear mylar strip is 50um (0.002 inches).

88% of 16 Evaluators stated they would incorporate the new QwikStrips into their practices. 100% rated QwikStrips Excellent or Good and worthy of trial by colleagues.

Touch Free Soap/Sanitizer Dispenser

Gordon's Clinical Bottom Line: One of my pet peeves is contaminated soap containers or soap bars touched before each patient. The following device eliminates this cross-contamination problem.

Elimination of contaminated soap containers is well recognized to be desirable, but clogging of automatic soap dispensers is a commonly occurring, frustrating problem. Often, when you need to wash your hands, the solution will not come out of the dispenser.

The **Touch Free** dispenser:

1. Installs with adhesive tape or screws.
2. Uses gel or foam waterless hand sanitizer, soap, or lotion.
3. Is battery operated (three C size batteries).
4. Measures 10 inches high, 4.25 inches wide, & 4 inches deep.
5. Comes in white or smoke color.
6. Has a 5-year warranty.

Advantages: The Touch Free dispenser is simple to use by waving hand under the unit to dispense 1 ml of solution. Blinking red light indicates normal function or low battery. Features window for solution check. Minimal clogging occurred during CR trial.

Disadvantages: None noted.

67% of Evaluators stated they would incorporate the Touch Free Soap/Sanitizer Dispenser into their practices. 100% rated Touch Free Dispenser Good or Excellent and worthy of trial by colleagues.

Touch Free Soap/Sanitizer Dispenser



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\$79 Each