



THE PFM REINVENTED

The tradition you trust,
reengineered for superior results.

Obsidian[®]4x

FUSED TO METAL



**SUPERIOR
STRENGTH**



**PRECISE
FIT**



**LIFELIKE
VITALITY**



**WEAR-
FRIENDLY**



For more information
mx.glidewell dental.com ■ 800-212-9080



Obsidian® Lithium Silicate Ceramic Provides Unmatched Versatility and Esthetics

Obsidian®4x
FUSED TO METAL

Indications:

- Crowns and bridges anywhere in the arch
- Screw-retained and cemented implant crowns and bridges
- Large-span bridges
- Restorations in the esthetic zone

Obsidian® lithium silicate ceramic is a state-of-the-art restorative material that can be used for PFM and all-ceramic cases, as well as restorations milled in-office. With this impressive versatility, Obsidian enables clinicians to prescribe a single material for virtually any indication in the mouth. The translucency and esthetics of the material match those of natural dentition, making Obsidian the optimal combination of utility and beauty.



Before



After

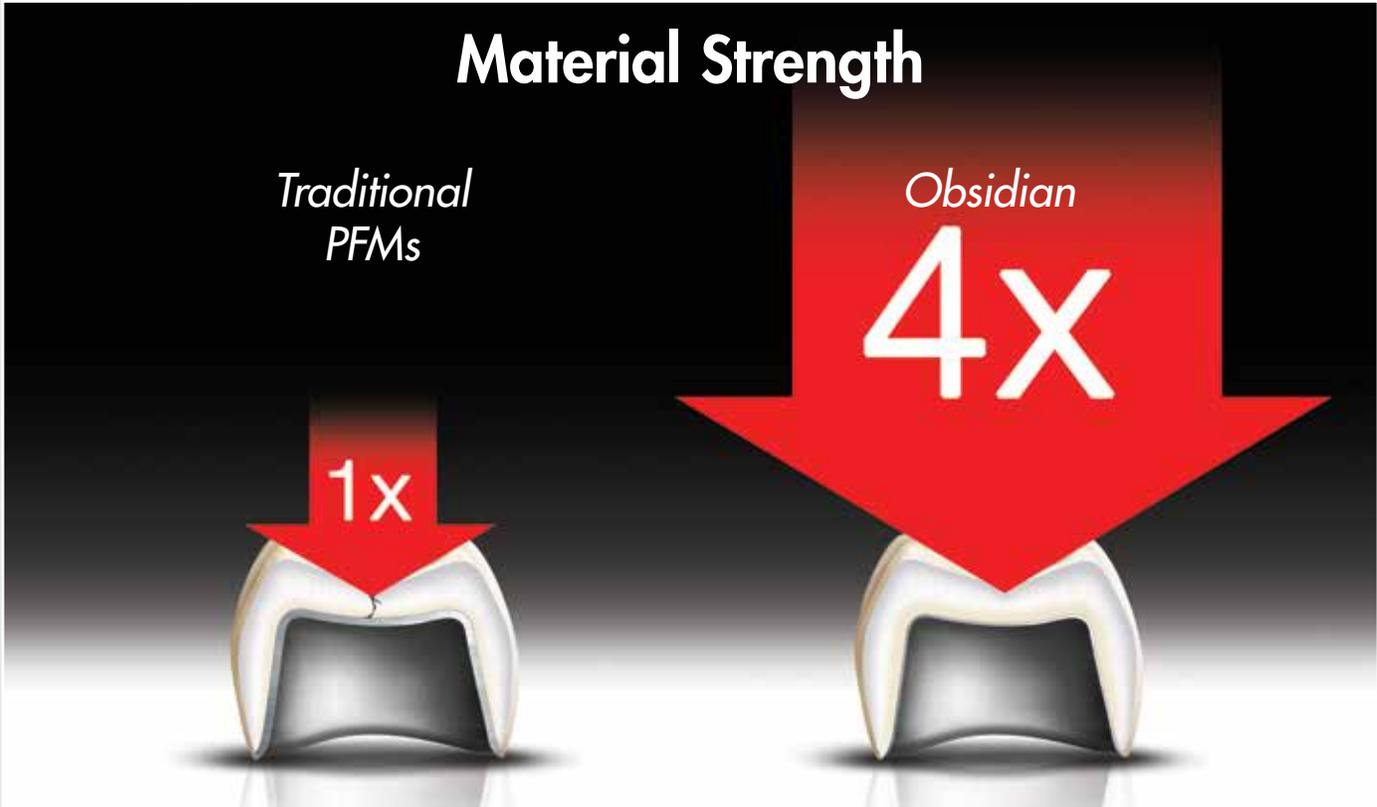
OBSIDIAN ONE-YEAR CLINICAL PLACEMENT REPORT

See the full report on the inside back cover

“Restoration looks very nice and the fit is great.”

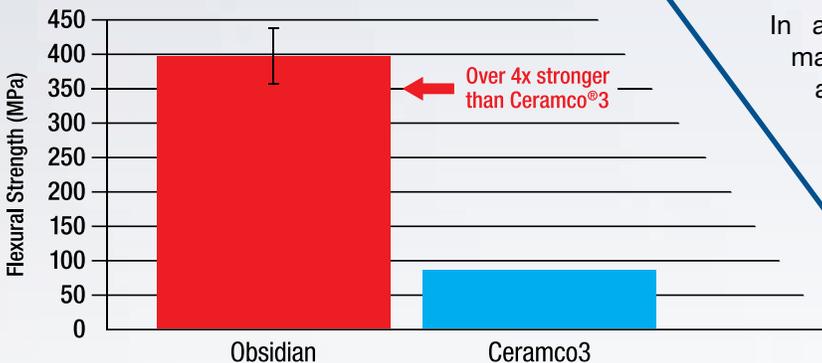
“The ones I have seen look great about a year after cementation.”

A Durable Solution



Traditional PFM crowns can crack or chip over time. However, Obsidian® ceramic takes over four times the force to fracture compared to the force necessary to fracture conventional feldspathic porcelains (PFM veneering ceramics). Biaxial flexural strength is measured by applying force to standard test samples until the ceramic fails.

BIAXIAL FLEXURAL STRENGTH



7-YEAR WARRANTY

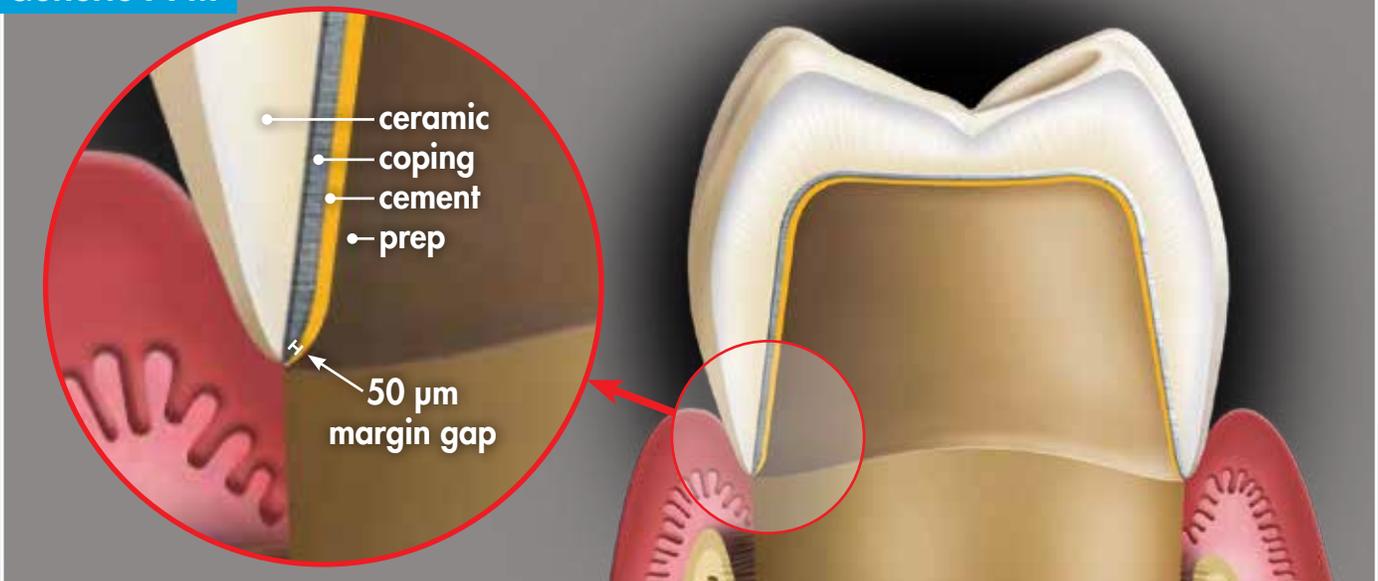
In addition to providing an optimized crown material for your Rx, Glidewell is proud to offer a seven-year warranty for your Obsidian Fused to Metal crown.



Data provided by the Glidewell Research & Development department, 18651 Von Karman Ave., Irvine, CA 92612.

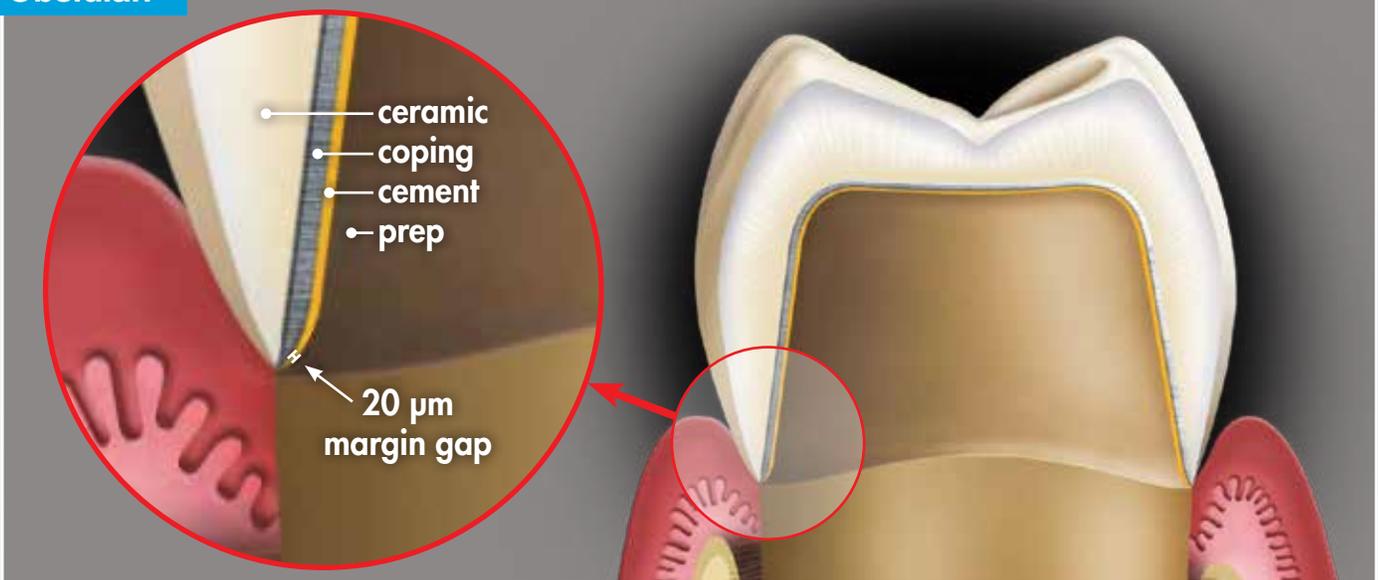
Efficacy via Precision Margin Adaptation

Generic PFM



Traditional casting techniques can result in 50-micron margin gaps, which can lead to a compromised crown seal.

Obsidian®



The laser-sintering process used for Obsidian® Fused to Metal restorations produces copings with superior accuracy and fit. With laser fabrication and digital design, the space between preparation and coping is reduced to 20 microns on average, significantly less than the 50-micron standard achieved with traditional casting methods. This reduction helps decrease cement washout and may limit bacterial infiltration.

Exceptional Esthetics



Before



After

These chipped and fractured anterior restorations were restored using a combination of Obsidian® All-Ceramic and Obsidian Fused to Metal crowns. The ability to use a single material heightens the chance of matching shades across multiple preparations.



Before



After

The patient desired an esthetic improvement to his current porcelain fused to metal crowns. Obsidian Fused to Metal crowns were placed on teeth #4, #7-10, #12 and #13. Obsidian All-Ceramic veneers were placed on #5, #6 and #11, giving the patient a natural-looking smile with increased marginal integrity.

With a full range of indications, the Obsidian product line affords convenient shade-matching for your cases. Use Obsidian for PFM and all-ceramic cases, as well as restorations milled in office, and you can achieve an easy, perfect shade match — even when crowns & bridges are delivered at different times or the oral situation demands multiple types of restorations.

**THE DENTAL
ADVISOR**
Improving Patient Care Through Research & Education

Obsidian®
30-month Clinical Performance



The product received a
**98% clinical
performance rating**
at the 30-month recall.

Quality Results You Can See

OBSIDIAN[®] LABORATORY-FABRICATED RESTORATIONS



Before



After



Before



After



Before



After



Before



After



Before



After

Clinically Proven Excellence

THE DENTAL
ADVISOR™

Obsidian® Fused to Metal Restorations

ONE-YEAR RECALL

+++++

www.dentaladvisor.com

RATING SYSTEM: Excellent +++++ Very Good ++++ Good +++



Glidewell Laboratories
www.glidewell dental.com

99%
rating
at recall

Introduction:

Obsidian® is a lithium silicate ceramic with high flexural strength that when pressed to metal results in a restoration with superior strength that is highly esthetic and chip resistant. They are ideal in situations where the preparation is highly discolored and optimal strength is required.

Clinical Evaluation Protocol:

A total of 127 **Obsidian Fused to Metal Restorations** were placed over a 12-month period. The **Obsidian** restorations included 27 anterior units and 100 posterior units (Figure 1). Of the 127 units, 40 involved three- to seven-unit bridges, while 87 were single crowns (Figure 2). All restorations were fabricated by Glidewell Laboratories. Approximately one half the restorations were cemented with self-adhesive resin cement, while the remaining half were cemented with resin-modified glass ionomer cement (*Fuji Plus*).

Fig. 1: Distribution of **Obsidian** restorations at placement.

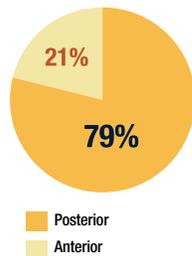


Fig. 2: Types of **Obsidian** restorations at placement.

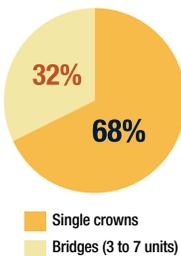


Fig. 3: Results of One-year Recall of **Obsidian Fused to Metal Restorations**.

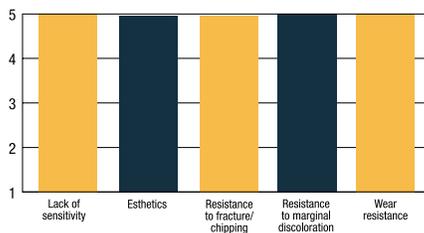


Figure 4. **Obsidian Fused to Metal** restoration (tooth #29) at six months.



Figure 5. **Obsidian Fused to Metal** restoration (bridge at #22-28).

Results at One-year

Of the 127 restorations placed during the first year, 74 (58%) were recalled and evaluated in the following areas: esthetics, lack of sensitivity, resistance to fracture/chipping, resistance to marginal discoloration, and wear resistance. Each category was rated on a 1 to 5 scale (Figure 3). Each category was rated on a scale of 1 to 5. 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

Summary:

The **Obsidian Fused to Metal Restorations** received from Glidewell Laboratories were rated excellent in esthetics, fit and marginal adaptation at placement. At one year, none of the recalled restorations exhibited wear, microleakage or tooth sensitivity after cementation (Figure 3). One restoration in a patient who was a heavy bruxer fractured and was replaced. Four of the recalled restorations received a rating of 4, because they were slightly greyish in appearance. **Obsidian Fused to Metal Restorations** performed extremely well at one year and received a 99% clinical performance rating.

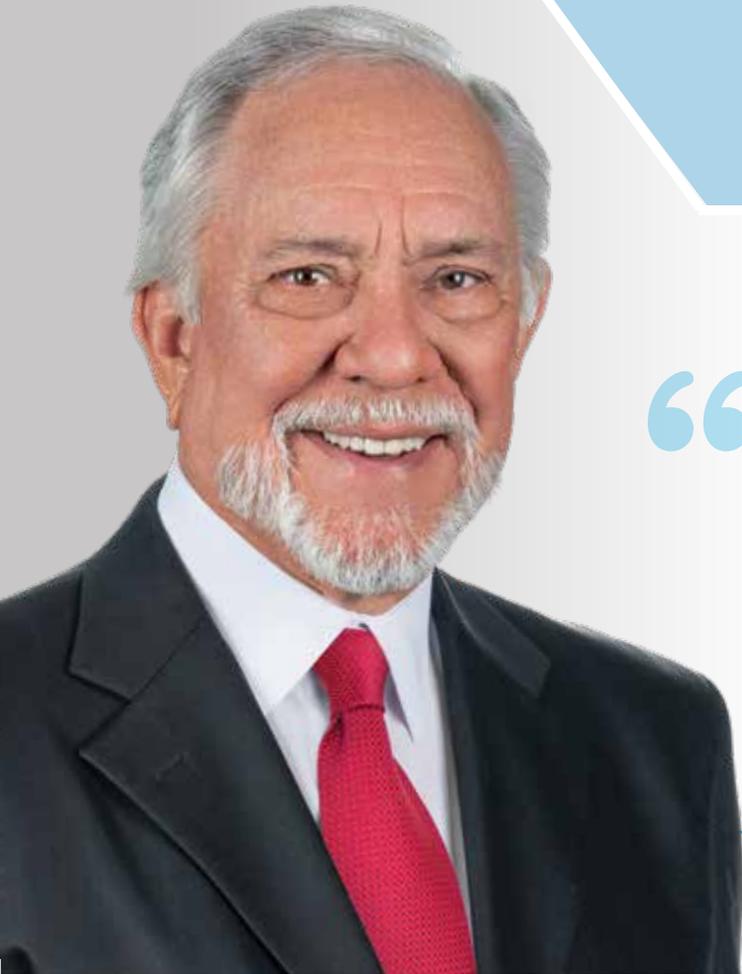
Consultant Comments

- "Beautiful restorations with a great fit."
- "The ones I have seen look great one year after cementation."
- "Very esthetic bridges - look like all-ceramic bridges."
- "Ideal for highly discolored preps."

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A BETTER SOLUTION FOR YOUR PATIENTS' SMILES



“

All future PFM cases prescribed from the lab will use Obsidian® lithium silicate ceramic in place of feldspathic porcelain. Obsidian Fused to Metal crowns are without question the next step in the evolution of PFMs.

”

Jim Glidewell, CDT

President, Chief Executive Officer

Glidewell has partnered with countless dentists across the U.S. for over 50 years, learning well the limitations and benefits of the many materials that clinicians employ in everyday practice. With those decades of invaluable knowledge as guidance, Glidewell developed Obsidian to meet the real-world demands of dentistry.

PRESCRIBE OBSIDIAN® FUSED TO METAL FOR YOUR NEXT CASE TO ACHIEVE:

- Finer margins
- High-performing strength
- Exceptional esthetics



For more information
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