

Choosing the Right Composite Restorative

A Comprehensive Guide
to GC Composites



Introduction

In the world of dental restoratives, there is a diverse range of composite materials tailored to meet the unique demands of various clinical scenarios. With options spanning packable, injectable, and flowable composites, as well as a choice between syringe and unitip delivery systems, dentists are presented with a wealth of possibilities. GC America offers high-quality composites in all these categories, and understanding the nuances of each type will help you to select the most suitable option for the specific condition at hand.

Packable composites, exemplified by **G-ænial Sculpt®** and **G-ænial™ A'CHORD**, emerge as highly viscous, almost solid materials that grant practitioners the flexibility to manipulate and refine the consistency on a mixing pad before application. Ideal for larger cavities and esthetic procedures, these materials are “packed” into the preparation using specialized instruments, allowing for precise sculpting and shaping prior to curing.

In contrast, flowable composites such as **G-ænial™ Flo X**, offer a lower viscosity solution that excels as a liner or base in conjunction with other restoratives. They are equally proficient in addressing smaller Class I and II cavities, acting as fissure sealants, or effectively blocking out undercuts. Delivered directly from a syringe, these materials flow effortlessly and exhibit exceptional adaptation to the edges of the cavity preparation.

For situations demanding a versatile intermediary, injectable composites, exemplified by **G-ænial™ Universal Injectable** and **G-ænial™ BULK Injectable**, take center stage. Striking a balance between flowables and packables, these medium viscosity materials allow for direct application to the cavity site, combining the cavity adaptation characteristics of flowables with the flexural strength typically associated with packables.

Whether opting for the multi-use syringe delivery or the convenient single-use unitips, GC provides solutions for every dental office. Comparing these restorative solutions will further illuminate the unique strengths and applications of each composite, equipping practitioners to navigate the expansive landscape of GC restoratives with confidence and precision.



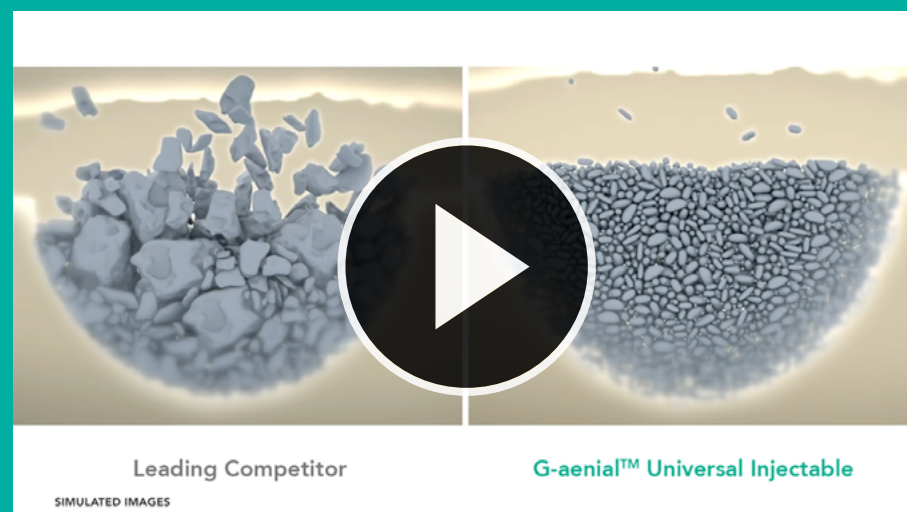


Empowered by HDR Technology

GC's **G-aenial™** composites stand out in the world of resin restorative products due to their proprietary High Density Resin (HDR) filler technology. The core of this exceptional technology lies in the homogeneous, nano-sized filler particles. These particles are not only uniformly dispersed throughout the composite but also form an incredibly strong bond with the resin matrix. This synergy results in benefits such as improved flexural strength, exceptional wear resistance, long-lasting gloss retention, and easy handling during application.

No other line of composites on the market currently boasts this unique HDR technology. As a result, **G-aenial™** composites represent a pioneering advancement in the field of restorative dentistry, offering clinicians access to a cutting-edge material that promises excellent performance and longevity in every application.

Watch this video to see HDR Technology in action!



How Does HDR Technology Benefit Clinicians & Patients?

The incorporation of HDR filler technology in GC's **G-aenial™** composites brings a host of benefits to dental restorations. The high flexural strength plays a pivotal role in enhancing longevity, effectively guarding against chipping and surface fractures. This means that restorations crafted with **G-aenial™** composites are built to endure, providing patients with long-lasting results.

Furthermore, the exceptional wear resistance and gloss retention attributes contribute to a natural, lifelike appearance that withstands the test of time. This ensures that restorations maintain their esthetic appeal from one recall to the next, providing patients with more confidence and satisfaction.

In a two-year study performed by DENTALADVISOR, the performance of **G-aenial Sculpt®** and **G-Premio BOND™** were shown to be excellent. Regarding esthetics, "eighty-nine out of 108 **G-aenial Sculpt®** restorations received a rating of 5 or excellent and 19 restorations received a rating of 4 or very good." None of the restorations exhibited any wear, and only one restoration in the entire study exhibited any level of fracture or chipping, which was repaired with minimal smoothing and polishing. Together, these products received a 98% Clinical Rating after two years.¹

Additionally, **G-aenial™** composites offer user-friendly handling characteristics, facilitating precise placement and enabling the application of artistic finesse. This empowers dentists to sculpt restorations that seamlessly blend with natural dentition, rendering them virtually indistinguishable.

1. G-aenial Sculpt® with G-Premio BOND™ 2-year Clinical Evaluation (<https://www.dentaladvisor.com/evaluations/G-aenial-sculpt-with-g-premio-bond-2-yr/>)





Selecting the Right G-aenial™ Composite



G-aenial™ A'CHORD

Choosing the right type of composite for a specific clinical situation hinges on understanding the distinct capabilities of each member within the **G-aenial™** composite family. **G-aenial™ A'CHORD** streamlines shade matching, simplifying the process for clinicians seeking precise color replication. According to a study performed by DENTAL ADVISOR, "the simplified shade aspect makes it possible to still create natural, beautiful restorations for patients while only having to carry five core shades in the office, minimizing inventory significantly from having to carry 16 shades to cover the entire VITA spectrum."² When reviewed by DENTAL ADVISOR's clinical evaluators, **G-aenial™ A'CHORD** received ++++ and a 94% Clinical Rating with one evaluator saying, "I really liked the handling and sculptability of the composite. It was firm yet very pliable and could spread it with a light brush like stroke."³

For cases demanding a harmonious blend with surrounding dentition, **G-aenial Sculpt®**, a highly esthetic packable composite with a chameleon effect, stands out as an excellent choice. The material is radiopaque and very easy to pack, sculpt, and polish, and designed to be wear resistant and self-polishing to increase polish and luster over time.

When versatility is paramount, **G-aenial™ Universal Injectable** bridges the gap between flowable and packable composites, offering the ease of application akin to a flowable while retaining the strength characteristic of a packable. This composite can be dragged to a fine feather edge, making it easy to blend it into the adjacent tooth structure. Its sister product, **G-aenial™ BULK Injectable**, steps up for large or deep cavities, with a depth of cure up to 4 mm per layer. Clinical Evaluations of these products by DENTAL ADVISOR resulted in 96%⁴ and 91%⁵ Clinical Ratings, respectively.

For situations requiring exceptional flow, **G-aenial™ Flo X** shines as a true flowable composite, serving as an ideal liner/base or addressing smaller cavities with precision. Lastly, **G-aenial™ Universal Flo** offers a slightly more viscous flowable option, combining excellent handling with the availability of B and C shades, facilitating seamless matching to darker dentition.

By leveraging the unique strengths of each **G-aenial™** composite, clinicians can confidently navigate various clinical scenarios, ensuring that their choice aligns with the specific needs of each case. This nuanced approach guarantees optimal results and patient satisfaction, cementing the **G-aenial™** family as a versatile and reliable choice in dental restoratives.

2. Ona E. Erdt, D.M.D., C.D.A., M.S.H.S., Clinical Case Report No. 53, G-aenial™ A'CHORD Simplified Unishade System (https://www.dentaladvisor.com/pdf-download/?pdf_url=wp-content/uploads/2023/03/CCR-53-G-aenial-ACHORD-System.pdf)

3. G-aenial™ A'CHORD Clinical Evaluation (<https://www.dentaladvisor.com/evaluations/g-aenial-achord/>)

4. G-aenial™ Universal Injectable Clinical Evaluation (<https://www.dentaladvisor.com/evaluations/g-aenial-universal-injectable/>)

5. G-aenial™ BULK Injectable Clinical Evaluation (<https://www.dentaladvisor.com/evaluations/g-aenial-bulk-injectable/>)



G-aenial Sculpt® with G-Premio BOND™



G-aenial™ BULK Injectable



G-aenial™ Universal Flo



G-aenial™ Universal Injectable



G-aenial™ Flo X



Conclusion

In the realm of dental restoratives, the **G-aenial™** line from GC offers innovation and adaptability. With a diverse range of composites, each bearing unique strengths and applications, clinicians are presented with a rich tapestry of options to elevate their craft. From **G-aenial™ A'CHORD** simplifying shade matching to the versatility of **G-aenial™ Universal Injectable** and the artistry of **G-aenial Sculpt®**, the brand caters to a wide spectrum of clinical scenarios.

The distinct capabilities of each member within the **G-aenial™** family empower practitioners to make choices that align seamlessly with the specific needs of each case. Whether seeking simplicity in inventory management or comprehensive readiness for any situation, the **G-aenial™** brand offers a tailored solution. The groundbreaking HDR filler technology sets **G-aenial™** composites apart, providing an exceptional combination of attributes crucial for long-lasting, natural-looking restorations.

In a field where precision and esthetics are paramount, **G-aenial™** composites stand as a testament to GC's commitment to advancing dental care. By understanding the nuances of each composite and strategically selecting the most fitting option, clinicians can transform smiles with confidence, precision, and excellence.



LEARN MORE:

Since 1983, DENTAL ADVISOR has been a trusted expert to dental professionals worldwide with concise, accurate, and objective information. We combine clinical experience with laboratory data and report on long-term in-vivo performance of materials over time. The mission of DENTAL ADVISOR is to provide the dental profession with evidence-based and clinically relevant information on dental restorative products, infection control products and dental equipment. DENTAL ADVISOR reports objective clinical evaluations, product comparisons, comprehensive long-term clinical performance studies, and unbiased laboratory test results.

G-ÆNIAL™ A'CHORD CLINICAL EVALUATION



Page view compliments of GC America, Inc.

G-aenial A'CHORD

GC America, Inc.
www.gc.dental/america

Overview

- 33 Clinical Evaluators
- 723 Total Uses
- 94% Clinical Rating

Consultants' Comments

- "I redid anterior bonding on a bride to be and she said she couldn't tell that it was even filling material."
- "Creates invisible restorations."
- "Excellent composite that should be in every dentist's restorative tool kit."
- "Excellent handling with predictable shade matching and esthetics."
- "I really liked the handling and sculptability of the composite. It was firm yet very pliable and could spread it with a light brush like stroke."
- "In anterior situations where I would otherwise have to layer different shades, G-aenial A'CHORD blended closely."
- "I felt like this was a firm material."

Description

++++ 1/2 (94%)

SIMPLIFIED SHADE COMPOSITE

DA 2023 WINNER

G-aenial A'CHORD (GC America, Inc.)

FEATURED IN:

VOLUME 40
NUMBER 01
JANUARY-FEBRUARY 2023

VIEW ISSUE

2023 AWARDS

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PRINT PAGE

G-ÆNIAL SCULPT® 2-YEAR RECALL CLINICAL EVALUATION

Page view compliments of GC America, Inc.

G-aenial Sculpt with G-premio Bond (2 Yr)

GC America, Inc.
www.gc.dental/america

Consultants' Comments

- "The esthetics are excellent and the material blends very nicely with the surrounding tooth."
- "Very nice results."
- "No complaints – very nice material to work with."
- "The surface looked very nicely polished at two years."

Clinical Evaluation Protocol

A total of 144 G-aenial Sculpt restorations were initially placed and 108 restorations were recalled at two years. The restorations were bonded with G-premio Bond. Of the recalled restorations 56% were molars, 41% premolars and 3% were anterior restorations (Figure 1). The majority (76%) of the recalled fillings were Class II, while (16%) were Class I and the rest (8%) were a combination of Class III, IV and V (Figure 2). Sixteen percent of the recalled restorations had been in function for one year, 35% were in function from one to one and one half years, and the remaining 49% were in function for about two years (Figure 3).

Results at Two-Year Recall:

One hundred and eight G-aenial Sculpt restorations bonded with G-premio Bond were recalled at two years. These were evaluated in the following area: esthetics, resistance to fracture/chipping,

++++ (98%)

FEATURED IN:

VOLUME 35
NUMBER 05
SEPTEMBER-OCTOBER 2018

VIEW ISSUE

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G-ÆNIAL™ UNIVERSAL INJECTABLE CLINICAL EVALUATION

Page view compliments of GC America, Inc.

G-aenial Universal Injectable

GC America, Inc.
www.gc.dental/america

Consultants' Comments

- "This material adapts beautifully, and it retains cusp form without slumping."
- "Easy to use, versatile, good radiopacity and strength."
- "I was surprised at how well it flowed into deep restorations."
- "Very good esthetics and good shade matches with teeth."
- "Adaptation was great; patients were very happy with the outcome."
- "Cuts restoration time very significantly and drastically reduces finishing time."
- "You can use it as a base and the depth of cure is excellent."
- "I liked the freedom from bubbles and the high luster."
- "I liked the longer and easily bendable tips that came with it."

Clinical Tips

- Give it time to flow into crevices before curing.
- Adapts into place well with an explorer.
- Make sure the tips used to dispense the material have a wide gauge so that less pressure can be applied to the syringe.
- Create cuspal inclines with the syringe.
- This composite can be dragged to a fine feather edge, making it easy to blend it into the adjacent tooth structure.

EDITOR'S CHOICE

++++ (96%)

COMPOSITE: HIGHLY-FILLED FLOWABLE

DA 2022 WINNER

G-aenial Universal Injectable (GC America, Inc.)

FEATURED IN:

VOLUME 39
NUMBER 01
JANUARY-FEBRUARY 2022

G-ÆNIAL™ FAMILY CLINICAL EVALUATION MOTION GRAPHIC

98%
rating at
recall

++++