

G-ænial™ Universal Flo

Universal Light-Cured Radiopaque Flowable Composite

A touch of genius



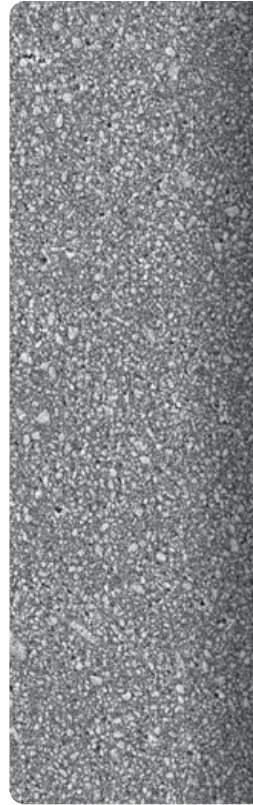
Since 1921

100 years of Quality in Dental



Strength Through Filler Innovation

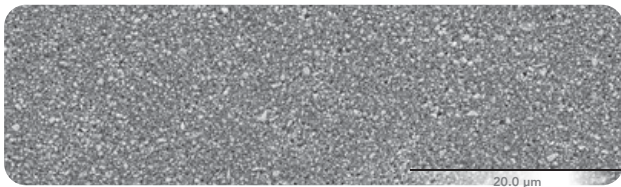
A truly universal Injectable Composite that is strong, polishable and wear resistant could only be achieved through the development of new filler technologies.



A new formulation of strontium glass was developed, which is highly translucent, acid resistant and radiopaque. This new glass formulation is milled down to an incredibly fine 200-nanometer particle size, half the size of previous generations of glass fillers used in micro hybrid composites.

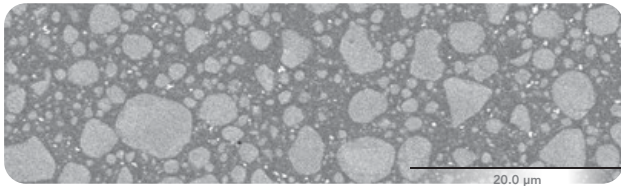
A revolutionary new silane treatment method is used on the surface of the nano-sized glass, in order to strengthen the adhesion between glass particle and resin matrix, and improve the hydrolytic stability and durability of the composite structure.

Silanation technology was a key aspect of the new material development.



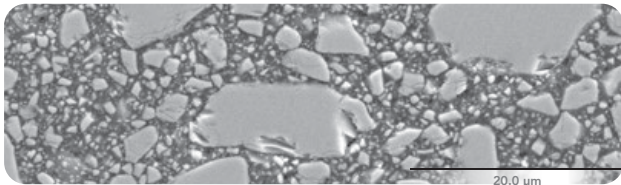
G-aenial™ Universal Flo

Features 200-nm strontium glass fillers homogeneously dispersed for high flexural strength and wear resistance



Filtek Supreme Ultra Flow† (Nano composite)

Typically contains spherical nano clusters made up of agglomerated nano fillers of varying sizes



Majesty† (Micro Hybrid)

Typically contains a range of glass and nano fillers of varying sizes

A Touch of Genius

True innovation in filler size and composition, in filler silanation and in manufacturing techniques, have given rise to a remarkable composite resin. G-aenial™ Universal Flo is the first truly universal Injectable Composite, a material that clinicians can place with ease for beautifully adapted, beautifully finished, fast, aesthetic and tough composite restorations.

G-aenial™ Universal Flo, the new technology for Injectable Composite resin.

The World's First Truly Universal Injectable Composite



Class I



Class II



Class III



Class IV



Class V

Full Strength

Injectable Composite for
all cavity classifications

Beautiful Aesthetics

with a high gloss
finish that lasts

No Slumping

yet wets and adapts
for fast application

Sets Rock Hard

with exceptional
wear resistance

Self-Polishing

and fast finishing with
ideal gloss retention

Universal Composite

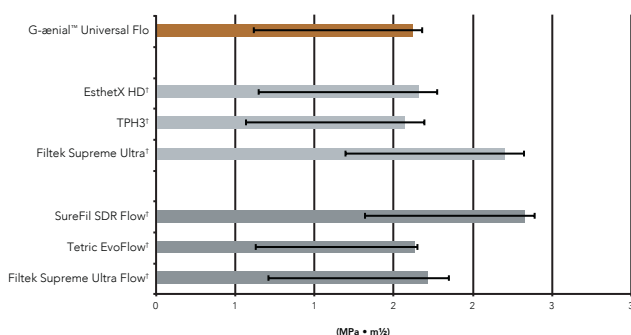
with the convenience of
a flowable syringe



An Injectable Composite with impressive strength.

Flexural Strength

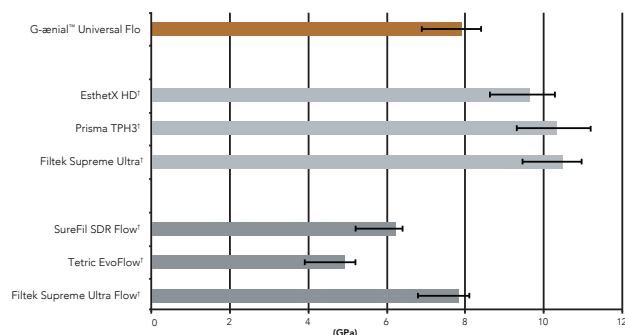
➔ Better



R&D Dept. GC Corporation

Flexural Modulus

➔ Mid-Range is Better



R&D Dept. GC Corporation

The flexural strength of G-ænial™ Universal Flo is unmatched by most conventional hybrid composites, giving confidence for its universal applications.

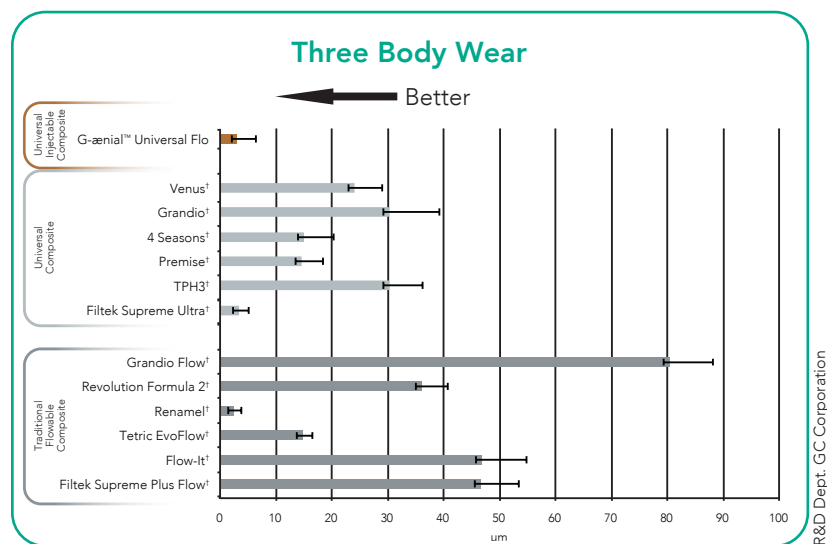
- G-ænial™ Universal Flo Universal Injectable Composite
- Universal Composite
- Traditional Flowable Composite

Wear Resistance and Manufacturing Innovation

An Injectable Composite that is highly wear resistant.

The high filler loading (69% wt) and homogenous dispersion of filler required for a high strength Universal Composite was achieved through the introduction of new manufacturing processes.

A new de-foaming process delivers porosity-free composite, as shown in the comparison below, that further improves strength and enhances the final polish and aesthetics.

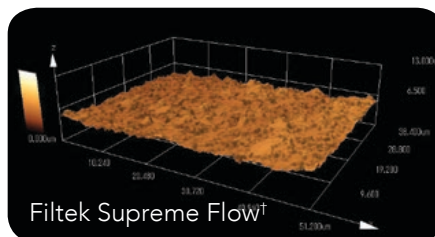
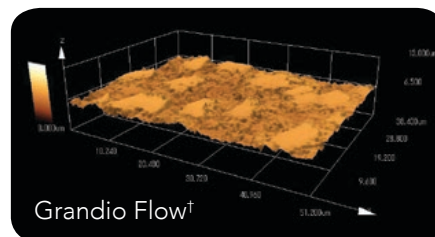
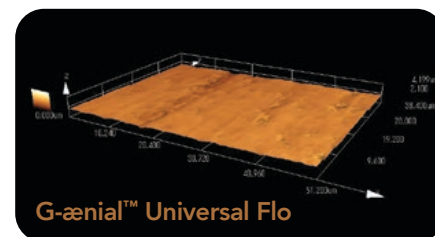
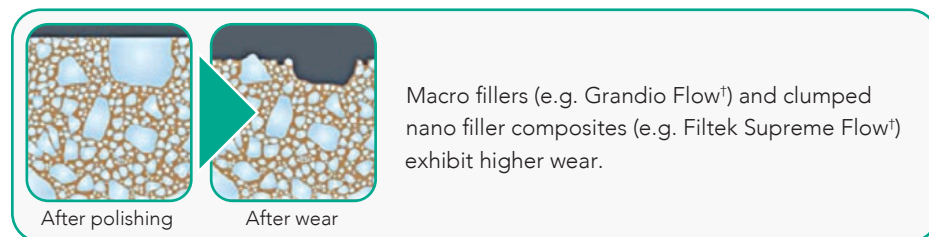


Dr. M. Okaguchi, Tokyo, Japan



Dr. G. Milichich, New Zealand

Confocal laser microscope images of comparative toothbrush wear



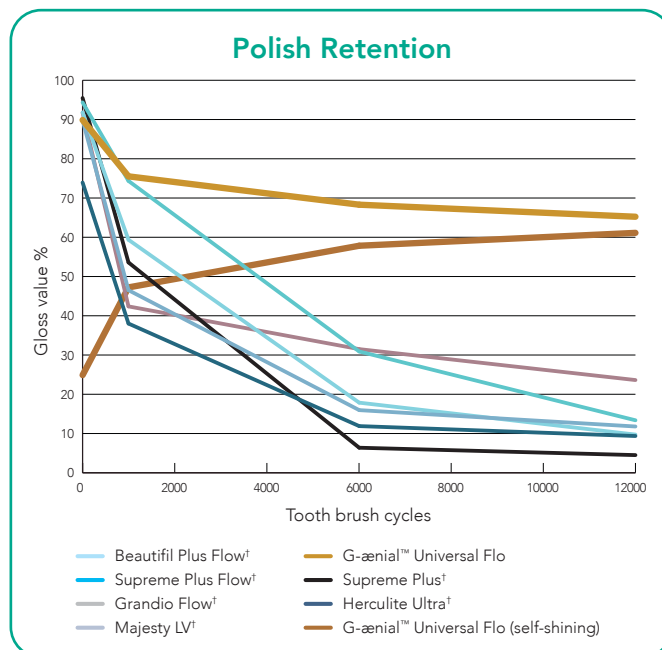
Uniform dispersion of individually silanated particles is the key and a clear point of superiority over alternative Universal Composites, including clumped nanofiller technologies, where fillers are more readily plucked and subjected to hydrolytic degradation as a result of filler size and compromises in silanation processes. Truly Universal Composite resins can achieve both polish retention and wear resistance.

Superb, No Compromise Aesthetics

Superior polish and high gloss retention – just like a microfill

G-ænial™ Universal Flo gives you and your patients the highest level of aesthetic outcome with a beautiful high gloss finish and excellent gloss retention. You will be amazed that a full strength composite can so quickly and easily deliver a high gloss finish. And your patients will appreciate the self-polishing characteristics, where the high gloss finish is maintained with daily tooth brushing.

Restored using shades AO3, A4, A3 and AE.



Controlled Fluidity



Injects like a flowable, yet will stack like a traditional composite

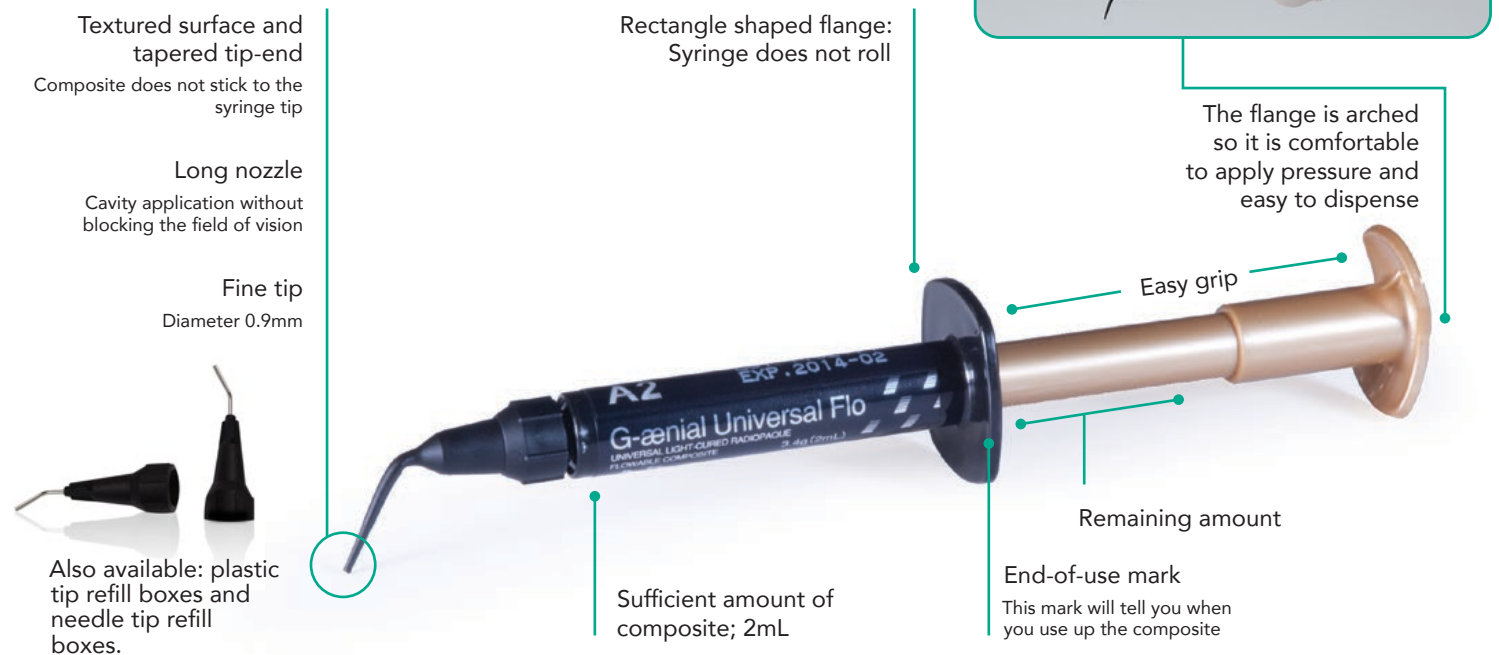
Using an injection technique with G-ænial™ Universal Flo has several advantages:

- Optimum cavity adaptation can be realized with no risk of pull-back that might cause voids at critical margins
- Composite placement is exact and controlled, making the build-up of anatomical form easy to achieve
- Controlled fluidity ensures placement is quick and stress-free. The combination of smooth flow and thixotropic properties means G-ænial™ Universal Flo wets surfaces easily, but is not runny and stays neatly in place

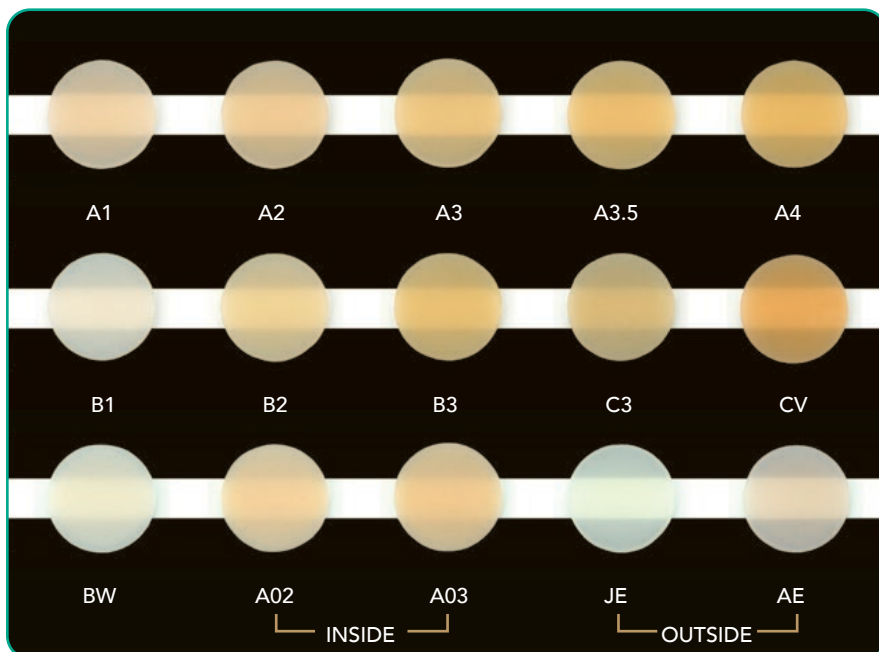


Economical & Ergonomic Dispensing

G-ænial™ Universal Flo is delivered in a purpose-made syringe, that has drawn on the convenience of flowable composite syringe design, and has then been enhanced to create a more economic and ergonomic Injectable Composite design.



Thanks to its broad range of 15 shades, based on the VITA® shade guide, and 3 different levels of translucency, highly aesthetic restorations can be achieved using a single shade, or with a multi-shade layering technique.



Inside special shades A02 and A03

These opaque shades will block shine - through and mask dentin discoloration, while adding "warmth" to the final restoration.

Outside special shades, JE and AE, for replacing enamel

Enamel changes over time, decreasing in value from high (whiter) to low (darker) and becoming thinner and more translucent. JE (Junior Enamel) and AE (Adult Enamel) are outside shades that will help clinicians create restorations with age-appropriate value. JE and AE shades have exactly the same composition and physical properties as the other shades of G-ænial™ Universal Flo.

Clinical Observations

Case 1



A metal inlay has dislodged



Cavity preparation



V-ring positioned, apply G-ænia™ Bond.



Dentin surfaces restored with shade AO3



Instruments can be utilized to assist in placement



The distal wall is restored with shades A4 and C3



V-ring positioned for mesial wall



Finished restoration



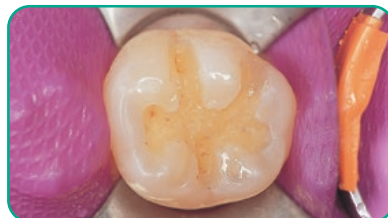
9 month review

Dr. S. Koide, Nagano, Japan

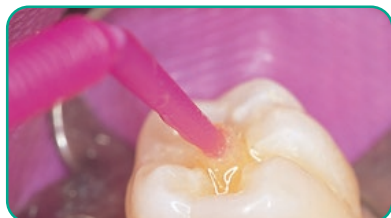
Case 2



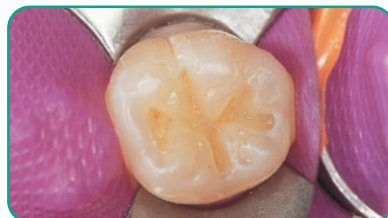
Patient request for tooth colored restoration



Removal of metal inlay



Apply G-ænia™ Bond.



Buccal cusp is formed with shade A2



Incremental placement completed



Finished restoration

Dr. M. Miyazaki, Tokyo, Japan

Case 3



Amalgam needing replacement



Incremental placement of A4 and A3



Finished restoration

S. Koide, Nagano, Japan

Questions & Answers

Q What is the recommended curing depth for composite increments of G-ænial™ Universal Flo assuming a 20-second light cure?

A **2mm.**

Q What is the percentage of volumetric polymerization shrinkage of G-ænial™ Universal Flo?

A **According to measurements undertaken at Nihon University (IADR 2011 abstract 605), volumetric shrinkage is 3.4%.**

Q Is G-ænial™ Universal Flo compatible with other UDMA or bis-GMA based composites?

A **Yes.**

Q How does the level of shrinkage stress compare to other composite materials?

A **Due to their lower modulus of elasticity, traditional flowable composite materials have tended to exhibit lower polymerization shrinkage stress. G-ænial™ Universal Flo has a similar level of shrinkage stress.**

Q Do you need a special bonding agent for G-ænial™ Universal Flo?

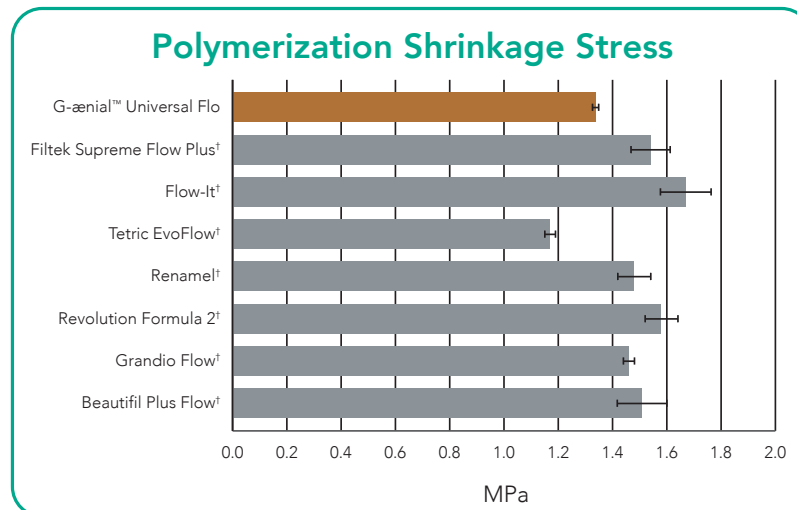
A **No. However, we recommend G-ænial™ Bond.**

Q How does the quantity of material in a syringe of G-ænial™ Universal Flo compare to other conventional and flowable composite syringes?

A **G-ænial™ Universal Flo contains 2mL of composite per syringe, which is twice the quantity found in a flowable syringe, and similar to the quantity of a conventional composite syringe.**

Q What is the percentage of filler by weight and volume?

A **G-ænial™ Universal Flo is 69% filled by weight, 50% filled by volume.**



Q Why do the intra oral tips screw on?

A The existing design of intra oral tips used for flowable composites had the potential to dislodge when used with a high density formulation of Injectable Composite. The new intra oral tip design is much more securely attached, with a joint strength 8 times higher than flowable composite syringe tips, removing any risk of dislodgement during placement.



Q Why is G-ænial™ Universal Flo strong enough for use in all cavities while most other flowable composites do not make this claim?

A G-ænial™ Universal Flo exhibits excellent physical properties including outstanding flexural strength. Its strength surpasses many conventional composite materials and is due to the dense, heavily filled, porosity-free composition. This is why G-ænial™ Universal Flo is indicated for all cavity classifications.

Q Are there any technique tips suggested for placement of Injectable Composite?

A Filling from the base of the tooth and moving the material with the dispensing tip are recommended. When removing the tip from the composite after placement, the potential for 'stringing' is decreased if the tip is removed perpendicular to the surface of the material.

Q What is the level of radiopacity of G-ænial™ Universal Flo?

A 181% Al which is close to the level of radiopacity of enamel. For optimum diagnostic contrast a restoration should have a level of radiopacity equal to that of enamel.

G-ænial™ Flo Traditional Flowable

G-ænial™ Flo is a partner product to G-ænial™ Universal Flo. It is indicated for use in small restorations and as a cavity liner. This highly radiopaque and highly flowable composite enables easy placement and flow into preparations for excellent handling.

G-ænial™ Flo is also delivered using the same innovative syringe design. Its flexural strength and wear resistance are superior to all leading flowable composites.



Liner



Restore small defects



Fissure sealant



Block undercuts

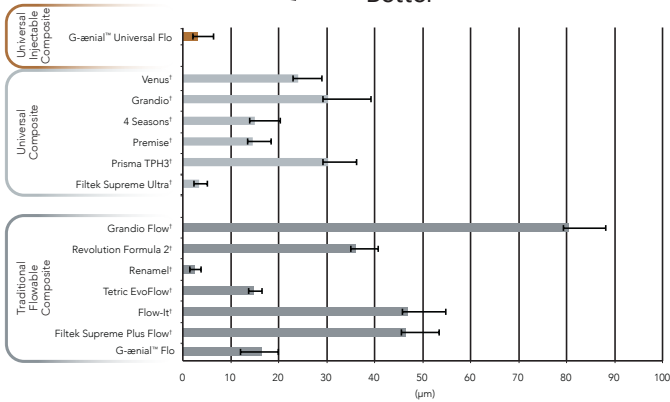


Tunnel restoration

Clinical Information

Three Body Wear

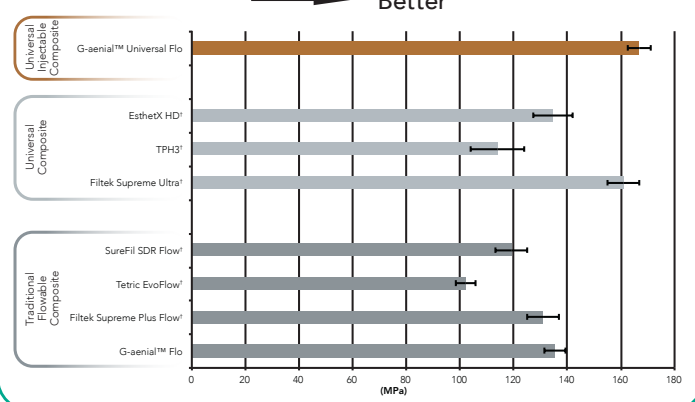
← Better



R&D Dept. GC Corporation

Flexural Strength

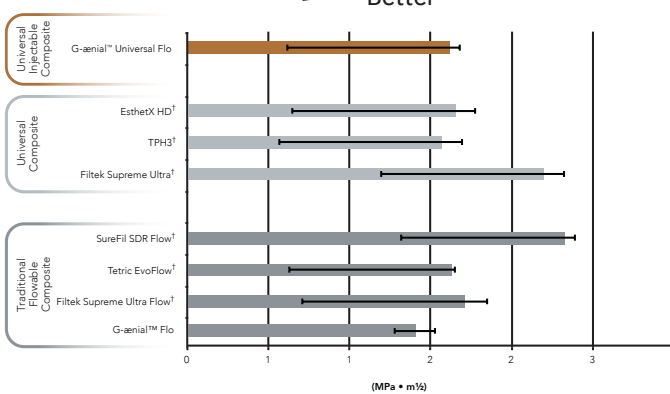
→ Better



R&D Dept. GC Corporation

Fracture Toughness

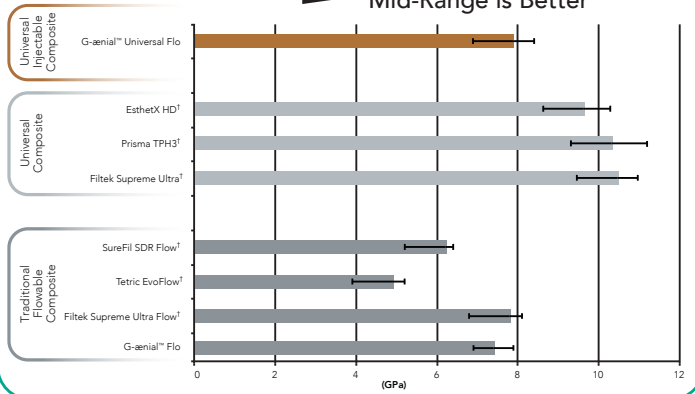
→ Better



R&D Dept. GC Corporation

Flexural Modulus

→ Mid-Range is Better



R&D Dept. GC Corporation

G-ænial™ Universal Flo

Ordering Information



G-ænial™ Universal Flo

Contains: One syringe (2 mL; 3.4 g).

004202 A1	008468 AO1	004213 BW
004203 A2	004211 AO2	004210 C3
004204 A3	004212 AO3	004214 CV
004205 A3.5	004207 B1	004215 JE (Junior Enamel)
004206 A4	004208 B2	
004216 AE (Adult Enamel)	004209 B3	

GC America Inc.

3737 West 127th Street

Alsip, IL 60803

800.323.7063

www.gc.dental/america

© 2026 GC America Inc.

†Not a registered trademark of GC America Inc.