



The **art**  
of creating  
beautiful  
smiles.

Aesthetics made  
easy by GC



Welcome to the **GC** G-ællery



The Science  
behind creating  
beautiful smiles.

by **G-ænial** from **GC**

At GC, we focus on individuality. We understand that no two patients are the same – and neither are their restorative challenges. We also understand no two dentists have exactly the same preference when it comes to placement technique or ideal composite restorative. To meet this need GC presents a range of composites with handling options from firm and packable through to flowing and injectable. Each GC composite introduces aesthetic qualities which help clinicians create invisible restorations with simplicity and efficiency. Each of these composites offers superior physical properties and polish retention to ensure strength and durable aesthetics. And each product showcases the innovation and quality that is core to GC's product philosophy.

## GC's aesthetic solutions for every case with exactly the handling you prefer.

### G-ænial Anterior

A medium consistency which won't stick or slump, making it ideal for free-hand contouring in aesthetic restorations. G-ænial Anterior brings natural vitality and exceptional shade matching for superior aesthetic results.



### G-ænial Posterior

With a firmer consistency, this composite provides a more packable feel with just the right amount of flow to ensure complete adaptation to the cavity floor and walls. G-ænial Posterior is easy to carve and optimally shaded for perfect posterior restorations.



### G-ænial Universal Flo

With its controlled flow, G-ænial Universal Flo injects like a flowable, yet will stack like a traditional composite. A world-class composite with exceptional strength, polish and versatility which can be used for all restorative indications.



### G-ænial Flo X

As a highly fluid composite, G-ænial Flo X allows for an easy and seamless placement. This bubble-free material benefits from high wettability, which results in effortless adaptation to the cavity walls. Its excellent radiopacity guarantees an easy detection of secondary caries.



THE ART  
OF CREATING  
INVISIBLE  
AESTHETICS.



# G-ænial Anterior from GC

Since I started working with G-ænial Anterior, the aesthetic results of my anterior restorations have improved dramatically. I find it very easy to work with, and it has a fantastic blending effect.

Dr. J. Van Rensburg, UK

G-ænial Anterior is a wonderful material, ideal colour-tuned and easy to handle. It enables me to make perfect anterior restorations.

Dr. U. Krueger Janson, Germany

I really like the handling; the material stays perfectly in place exactly like you model it. The long working time makes it even more convenient.

Dr. J. Tapia Guadix, Spain

# G-ænial Anterior: Aesthetics made easy

G-ænial Anterior is the material of choice when you are looking for a restorative that will meet the aesthetic expectations of all your patients. Being a forgiving composite that offers beautiful and natural looking high gloss restorations whilst being extremely easy to use, makes it a composite suited to everyday use.

G-ænial Anterior also gives you more working time so you are free to shape, flow and sculpt to obtain the ideal anatomical form and aesthetics with ease.

- **Aesthetics & radiopacity:** Beauty and traceability combined
- **Versatile in use:** From single shade simplicity to multi shade complexity
- **Age aligned shade system:** Enamel shade selection based on the age of the patient
- **Effortless handling:** Smooth, non-sticky viscosity that can even be handled with a brush



Dr. J. Tapia Guadix, Spain



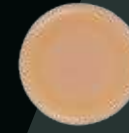


# The secret behind creating invisibility.

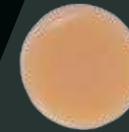
G-ænial Anterior features a unique composition capable of providing restorations that blend seamlessly with the tooth – in most cases with only one shade. Advanced research has resulted in the availability of a wide variety of sizes and types of fillers that offer enhanced light scattering abilities that mimic the natural reflection of light. The outcome is exceptional natural shade matching for superior anterior aesthetics.



Initial situation: cavity in a composite block; shade A3



Cavity filled with competitor's material - low light scattering composited: shade A2



Cavity filled with G-ænial - high scattering composite: shade A2

# From mono shade beauty to a multitude of aesthetic combinations.



Mono shade  
Dr. G. Aboudharam, France



Multi shade  
Pr. M. Peumans, Belgium



THE ART  
OF CREATING  
LONG-LASTING  
POSTERIOR  
AESTHETICS.

# G-ænial Posterior from GC

I like the consistency of G-ænial Posterior because the material always stays in place, especially while building up the cusps or marginal ridges. Furthermore, this composite resin is not sticky and easy to contour.

Pr. I. Miletic, Croatia

The combination of opacity and packability allows me to create nature-like posterior restorations. I have not experienced any kind of sensitivity, even in cases of large size posterior restorations.

Dr. M. Menke, Austria

I like using G-ænial Posterior because of its good colour match and excellent thixotropic properties. I find the unitips to be very easy in handling.

Dr. H. F. Ousni, Lebanon

# G-ænial Posterior: The firmer beauty

G-ænial Posterior features a more condensed filler content which gives a firmer consistency and greater control when contouring anatomical form in posterior restorations. The packable material will still wet and flow when manipulated to ensure tight moulding, even in the deepest cavities.

G-ænial Posterior introduces warmer shades which are particularly suited to the needs of posterior aesthetics.

- **Adapted shade system:** 4 standard shades and 2 outside shades to mimic age related changes in the enamel.
- **Adequate Radiopacity of 252%:** Facilitates the follow-up
- **Non-sticky packable viscosity:** Greater control to contour and build anatomical form
- **Increased filler content:** Superior strength and longevity

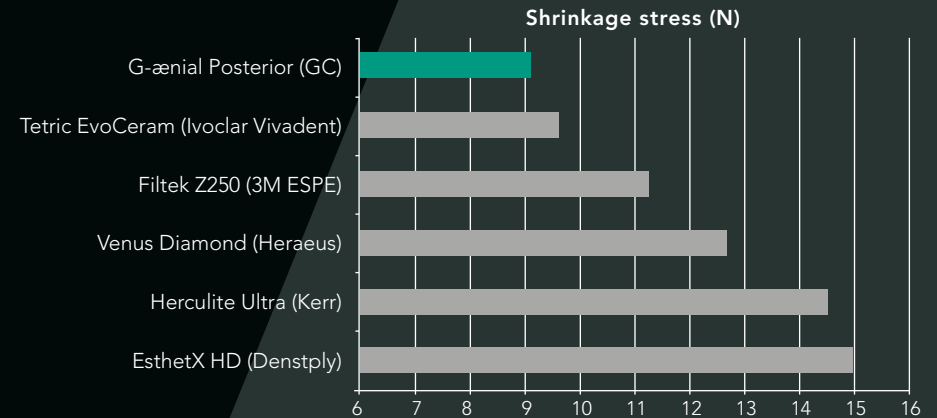


Dr. J. Tapia Guadix, Spain



# The secret behind creating long-lasting beauty.

G-ænial Posterior's unique blend is formulated for both strength and low shrinkage stress. If a posterior composite restoration fails, it is typically due to fracture or loss of marginal seal. G-ænial Posterior features high fracture toughness and reduced polymerisation shrinkage stress to help reduce the risk of long term failure.



Shrinkage stress of various composite materials.  
GC R&D internal data, Japan, 04/2011. Data available on file.  
Test performed according to ISO 4049:2000

## From mono shade strength to a multitude of long-lasting aesthetic combinations.



Mono shade  
Dr. J. Tapia Guadix, Spain



Multi shade  
Dr. J. Smithson, UK

**THE ART OF  
CREATING  
INJECTABLE  
AESTHETICS.**



# G-ænial Universal Flo from GC

A real flowable material for every indication – very good mechanical properties, easy to use, very nice colour and layering technique.

Dr. Z. Mach, Czech Republic

G-ænial Universal Flo is the ultimate material for creating best colour effects. In more than 90 % of my cervical cases, I prefer the colour AO3.

Dr. U. Krueger Janson, Germany

Although it is a flowable material, G-ænial Universal Flo, when used for Class II restorations, demonstrated a sealing ability comparable to composite resins with low stress behaviour.

Prof. C. Goracci, Italy



# G-ænial Universal Flo: Controlled flow, maximum strength

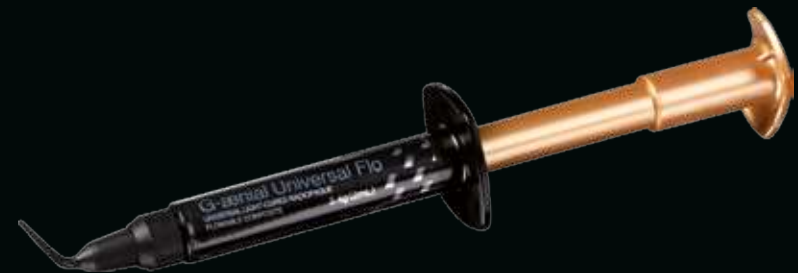
As a clinician, you might find it difficult to find a material that can perfectly adapt itself in deep or narrow cavities as well as being strong enough for occlusal surfaces.

Thanks to its injectable viscosity, G-ænial Universal Flo provides the answer to many difficult cases where you do not want to compromise between perfect placement, aesthetics or strength.

- **Full strength universal restorative:** Injectable composite for all cavity indications
- **Controlled flow:** Perfect adaptation combined with stability for easy build-up of anatomical forms
- **Self polishing:** Fast finishing with ideal gloss retention
- **Superb aesthetics:** 15 shades with 3 opacity levels aligned with all other GC composite restoratives



Dr. I. Miletic, Croatia

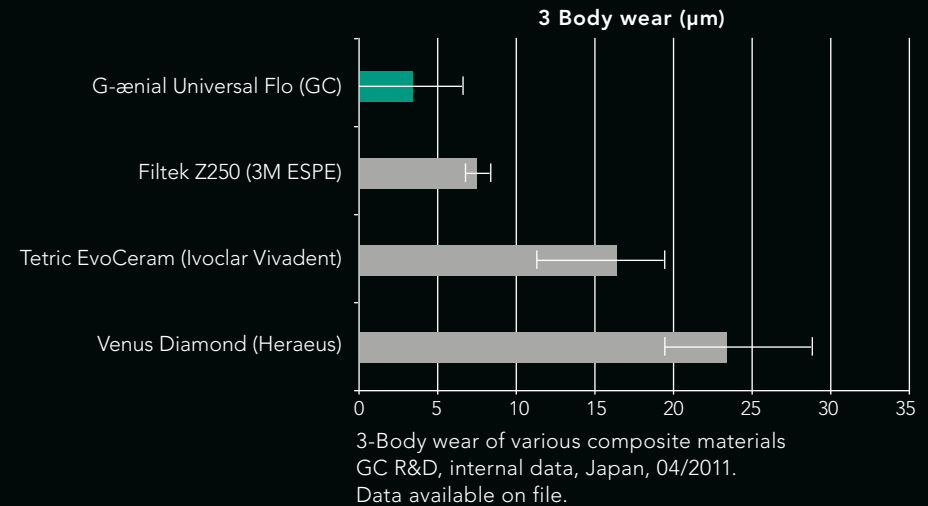




# The secret behind creating injectable restorations.

G-ænial Universal Flo benefits from new manufacturing techniques and a revolutionary silane treatment that strengthens the adhesion between glass particles and the resin matrix. As such, a higher filler concentration is achieved to improve strength, wear resistance and enhances the final polish and aesthetics.

The result is an injectable restorative, as strong as any other posterior composite, but with one significant advantage: ideal for indications where an injectable viscosity is required such as class I, II and cervical restorations.



## From the smallest Class V to the most extensive Class II restorations.



Dr. U. Krueger Janson, Germany



Dr. J. Sabbagh, Belgium



**THE ART  
OF CREATING  
THE FOUNDATION  
OF PERFECT  
AESTHETICS**



# G-ænial Flo X from GC

G-ænial Flo X is optimal to use together with G-ænial Posterior for cases with multiple areas of decay. It is an ideal indication, because the high radiopacity helps to detect quickly the apparition of secondary caries.

Dr F. Raux, France

G-ænial Flo X is a very versatile and easy to handle composite with an extremely high radiopacity, which makes it an excellent lining/filling material.

Dr P. Nielsen, Switzerland

G-ænial Flo X offsets many handling problems; it is easy to fill the material into the cavity without bubbles, and to adapt it to the cavity bottom.

Dr T. Dobbertin, Germany

# G-æniel Flo X: The fluid partner

G-æniel Flo X is a flowable composite featuring excellent handling and high radiopacity, perfect for all the traditional flowable indications. Thanks to its low viscosity, it is especially suitable for lining and provides the optimal foundation for any type of G-æniel restoration. In addition, G-æniel Flo X is the material of choice for tunnel preparations, minimal intervention cavities and fissure sealing.

- **Fluidity & wettability:** Precise application & superb adaptation to the cavity walls
- **High radiopacity:** Easy follow-up of the restorations, even at low thickness
- **Optimal shade assortment:** 8 shades including 2 opaque shades to cover discolorations
- **Smart syringe design:** perfect ergonomics & easy extrusion

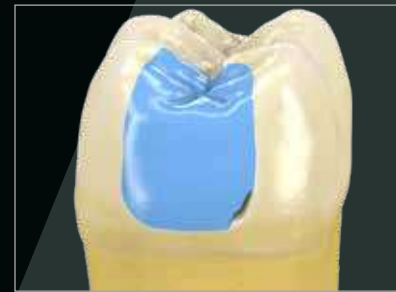


Dr T. Dobbertin, Germany



# The secret behind creating perfectly lined cavities.

A concern for any dentist when applying the first layer of a composite is the wettability of the material and its adaptation to the cavity walls. The optimised composition of G-ænial Flo X allows for an easy and fluid placement, while maximizing the physical properties. The material benefits from excellent handling and wettability, allowing a perfect adaptation to the cavity walls and avoiding air entrapment underneath the composite restorations.



Restoration without liner:  
risk of air entrapment



Restoration with liner:  
perfect adaptation

# From creating perfect linings to restoring narrow tunnel preparations.



Dr M. Margolin, Switzerland



Dr P. Nielsen, Switzerland



**THE ART  
OF CREATING  
PERMANENT  
CONNECTIONS**

# G-ænial Bond from GC

Good overall product.  
Perfect for the selective etching  
technique. No post-operative  
sensitivity is the key to success when  
working with patients.

Dr. J. Tapia Guadix, Spain

This bonding agent saves me  
time. I don't have to etch the  
dentin, while I etch the enamel for  
only few seconds. I like its viscosity,  
and it wets the tooth structure well.

Pr. I. Miletic, Croatia

I like the fact that G-ænial Bond  
can be used in both the selective  
etching and the self etching technique  
without post-operative sensitivity.

Dr. H. Nasr, Lebanon



# G-ænial Bond: 1 material – 2 choices for perfect bonding

G-ænial Bond offers you the highest and safest adhesion to both enamel and dentine, regardless of the technique you choose. With G-ænial Bond you gain the simplicity and reduced post-operative sensitivity of a self-etch adhesive combined with increased bond strength when you decide to use 10-second selective etching on enamel.



Frosty surface after application of G-ænial Bond, allowing easier composite placement

Dr. J. Tapia Guadix, Spain

- **Choice between self-etch or selective etching of enamel:** Select the best option depending on the case
- **Superior long-lasting bond strength to both enamel and dentine:** Combination of chemical and mechanical adhesion as well as a HEMA-free formulation
- **Excellent marginal integrity and clinical reliability:** Proven in independent tests
- **No post-operative sensitivity:** Independent from technique or composite used

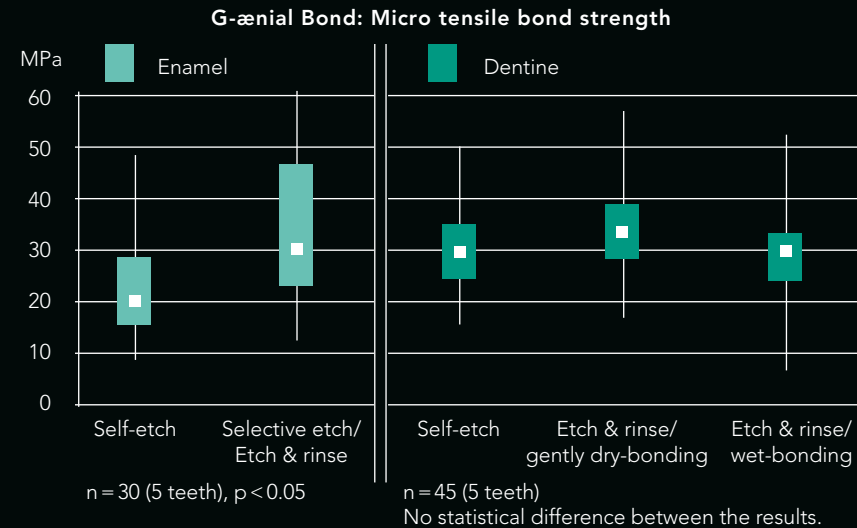




# The secret behind selecting the optimal bonding technique

When dentine is etched, open dentinal tubules can lead to post-operative sensitivity and non-protected collagen fibres are prone to degradation over time. Since G-ænial Bond doesn't require etching and its self-etching approach offers a high adhesion to dentine, the dentinal margins of your restorations will last even longer than when using a total etch bonding system.

On enamel you can choose the self-etch approach for optimal bond strength with posterior and cervical restorations. By applying only 10 seconds of etching you further increase the adhesion in the case of wider enamel surfaces, typically seen in anterior cases.



Micro tensile bond strength to enamel and dentin with or without etching. Adapted excerpt from Prof. B. Van Meerbeek, University of Leuven, Belgium, December 2009

## From a fast self-etch bond to an increased selective etch bond



Pre-operative view

Optional selective etching:  
Etch 10 sec enamel only,  
rinse and dry



Apply G-ænial Bond.  
Wait for 10 s



Dry for 5 s under  
MAXIMUM air pressure



Light cure for 10 s



Continue building-up your  
composite restoration

# The secret behind the art of shade selection

G-ænial offers flexibility, enabling placement of aesthetically invisible single-shade restorations or aesthetic masterpieces with a multi-shade build-up. In order to achieve this, 3 clearly differentiated shade groups have been defined for G-ænial:

- **Standard shades:** for the single-shade restorations
- **Outside shades:** replacing enamel, placed on top of Standard shades in aesthetically demanding cases
- **Inside shades:** bringing opacity, placed underneath Standard shades in aesthetically demanding cases

A forward-thinking shading concept  
with standard and special shades.

## Standard shades



## Outside shades



## Inside shades





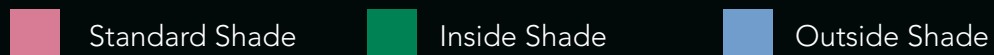
Single-shade restoration  
using standard shade



Two-shade restoration using standard  
and outside shades



Multi-shade restoration using standard,  
inside and outside shades



To learn more on the layering possibilities with G-ænial, download  
the free Restorative Guide application on [www.gceurope.com](http://www.gceurope.com)



# Discover and enjoy using the members of the G-æniel Family



## G-æniel Anterior

The smooth beauty  
Available in 2.7 ml (4.7g) syringe or  
0,16ml unitip  
Standard: XBW, BW, A1, A2, A3, A3.5  
A4, B1, B2, B3, C3, CV, CVD  
Inside: AO2, AO3, AO4  
Outside: JE, AE, SE, IE, TE, CVE



## G-æniel Posterior

The firmer aesthetics  
Available in 2.7 ml (5.5g) syringe or  
0,16ml unitip  
Standard: P-A1, P-A2, P-A3, P-A3.5  
Outside: P-JE, P-IE



## G-æniel Universal Flo

The injectable universal  
Available in 2 ml (3.4g) syringe  
Standard: A1, A2, A3, A3.5, A4, BW,  
B1, B2, B3, C3, CV  
Inside: A02, A03  
Outside: AE, JE



## G-æniel Flo X

The fluid partner  
Available in 2 ml (3.6g) syringe  
Standard: A1, A2, A3, A3.5, A4, CV  
Inside: A02, A03



## G-æniel Bond

The connecting element  
Available in 5ml liquid

# The science behind beautiful smiles by GC

	G-ænial Anterior	G-ænial Posterior	G-ænial Universal Flo	G-ænial Flo X
Key Words	Easy beautiful aesthetics Perfect handling	Perfect handling Long-lasting margins Radiopacity	Universal Low flow, high strength High gloss	High flow Perfect adaptation High radiopacity
Composition	Micro HDR Hybrid		Ultra Fine Hybrid Flowable	
Main indication	Anterior	Posterior	Universal	Liner
<b>Aesthetics</b>				
Shades	22 shades: 13 Standard, 3 Inside, 6 Outside	6 shades: 4 Standard, 2 Outside	15 Shades: 11 Standard, 2 Inside, 2 Outside	8 Shades: 5 A shades, 2 Inside, 1 Cervical
<b>Handling</b>				
Viscosity	High / mouldable	Firm / sculptable	Medium / non slumping	Low / flowing
Working time (sec)	240 s	120 s	70 s	75 s
<b>Physical properties</b>				
Radiopacity Al%	142 %	252 %	181 %	303 %
Shrinkage (%)	2,42 %	2,28 %	3,95 %	3,96 %
Modulus of elasticity (GPa)	6,4 GPa	8,2 GPa	7,9 GPa	7,6 GPa
Flexural strength (MPa)	107 MPa	118 MPa	167 MPa	165 MPa
Fracture toughness (MPa)	1,6 MPa	1,5 MPa	1,6 MPa	1,7 MPa
Wear resistance (3-Body)	37 µm	44 µm	3 µm	11 µm
Depth of cure (mm)	1,5-3,5 mm	2-3 mm	1,5-2 mm	1,5-2 mm
Filler content (wt%)	76 %	81 %	69 %	69 %
<b>Packaging</b>				
Syringe vol/weight	2,7 ml / 4,7 g	2,7 ml / 5,5 g	2 ml / 3,4 g	2 ml / 3,6 g
Unitip vol/weight	0,16 ml / 0,28 g	0,16 ml / 0,33 g	NA	NA
Shelflife	3 years	3 years	3 years	3 years

# Related products



## Finishing

### DiaPolisher Paste

Diamond Polishing Paste to further enhance the aesthetic results of all your restorations.

### Epitex & New Metal Strips

Plastic and metal strips for approximal contouring, finishing and polishing of all your restorations.

## Fiber Reinforcement

### everStickPERIO

Glass fibre reinforcement for patient friendly splinting.

### everStickC&B

Glass fibre reinforcement for minimally invasive fibre reinforced composite bridges.

## Primers

### Composite Primer, Ceramic Primer II and Metal Primer II

Adhesives for bonding composite to composite, ceramics and metal.

## Gum Composite

### GC Gradia Gum Shades

Light-cured gum composite designed to provide shades as seen in the natural gingiva.





# The GC-Composite G-ællery



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