Your **preferred** technique - **step** by **step**

G-ænial Bond self-etch

Quick, simple and effective: Using G-ænial Bond, the self-etch technique takes just 30 seconds from start to finish.

Apply 1 layer of G-ænial Bond and leave undisturbed for 10 seconds after application.

Dry thoroughly for 5 seconds under MAXIMUM air pressure.

Light cure for 10 seconds (5 seconds when using G-Light).

G-ænial Bond self-etch with selective enamel etching

Apply 35% - 40% phosphoric acid on enamel for 10 seconds.

Rinse thoroughly for 5 seconds.

Dry thoroughly for 5 seconds, then proceed with G-ænial Bond.

Ordering information

004217 G-ænial Bond Kit, 5ml bottle and accessories

004219 G-ænial Bond 3-bottle Pack, 3x5ml bottle

004220 G-ænial Bond Refill,1x5ml bottle

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G-ænial Bond™ from GC

Bringing you the best of a **7th generation** adhesive with a unique **selective etching** approach

One bonding agent, two **choices**

GC is proud to offer you new options in bonding techniques with the introduction of our 7th generation bonding agent 'G-ænial Bond'.

With G-ænial Bond, you can choose:

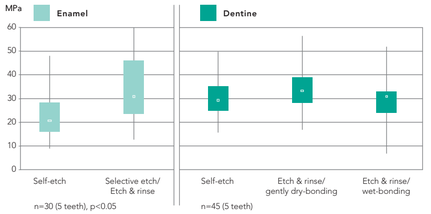
Self-etch approach: As a one bottle self-etch bonding agent, it can be used to self-etch both enamel and dentine. This has been shown to provide excellent bond strength to both enamel and dentine.

Selective etching approach: Some dentists like to further enhance etching of enamel. If you choose this approach, a 35%-40% phosphoric acid can be applied on enamel for 10 seconds prior to the application of G-ænial Bond.

Why a selective etching approach?
As shown by test results etching has been proven to provide a higher bond strength to enamel but has no benefit on dentine. This is why etching dentine is not recommended.
Alternatively, with G-ænial Bond the selective etching approach is very safe. Test results have shown that there is no decrease in bond strength to etched dentine, therefore there is no adverse effect if the etchant inadvertently reaches the dentine while etching the enamel.

With a selective etching approach, G-ænial Bond safely offers the best of both worlds: the simplicity and reduced post-operative sensitivity of a self-etch adhesive together with the greater bond strength to enamel that was traditionally found only with etch-and-rinse adhesives.

G-ænial Bond:
Micro tensile bond strength

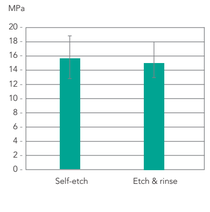


n=30 (5 teeth), p<0.05
n=45 (5 teeth)

No statistical difference between the results.

Adapted excerpt from a study by
Prof. B. Van Meerbeek,
University of Leuven, Belgium, December 2009

G-ænial Bond:
Shear bond strength

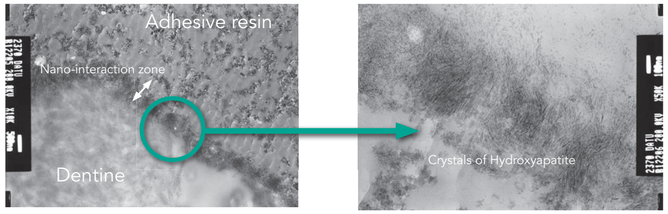


Adapted excerpt from a study by
Prof. M. Degrange*,
University Paris Descartes, France,
March 2010

A **durable, efficient** bond

Superior bond strength

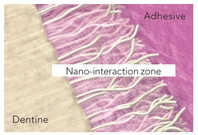
The superior self-etch bond strength of G-ænial Bond to enamel and dentine is attributable to its unique formulation. The dimethacrylate monomer in G-ænial Bond increases its permeability into enamel and dentine compared to other adhesives, while the increased level of phosphate ester monomer optimises etching.



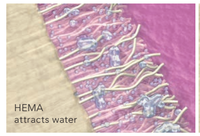
With G-ænial Bond a 500 nm nano-interaction zone is formed and within this nano-interaction zone there is a high concentration of hydroxyapatite crystals.
(TEM images of demineralized specimen x10 000 and 50 000)
GC R&D Internal Data, Japan

HEMA-free for a durable bond over time

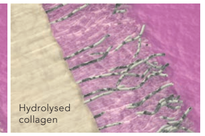
G-ænial Bond does not contain HEMA. This improves bond strength as water is not attracted to the area, which means there is no degradation of the collagen fibres.



G-ænial Bond - HEMA-free: stable in time



HEMA formulation: water is attracted



HEMA formulation: degradation of collagen fibres

The dentine/adhesive interface – the nano-interaction zone – and the presence of hydroxyapatite crystals within this zone together with the HEMA-free formulation are key factors for the superior and long-lasting bond strength found with G-ænial Bond.

Clinically reliable **bond**

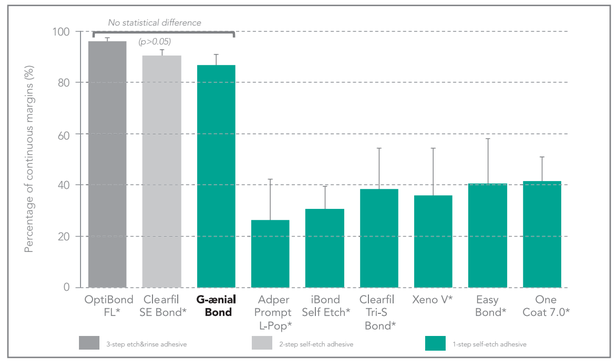
Excellent marginal integrity

The marginal integrity of G-ænial Bond has been investigated and evaluated by Dr. Uwe Blunck (Charité Berlin, Dept. Operative Dentistry) in the study: *Evaluation of the effectiveness of GBA 400* in combination with Gradia Direct Posterior and Filtek Z250 in Class I cavities after thermocycling and mechanical loading (08/ 2008)*

G-ænial Bond (GBA 400) shows in terms of marginal integrity:
- Better results in the class of self etching adhesives than:
  Adper Prompt L-Pop*, iBond Self Etch*, Tri-S-Bond*, Easy Bond*, Xeno V*, One Coat 7.0*

No statistical significant difference was found for the results of GBA 400 in combination with both composite resins in comparison to the results for the etch & rinse adhesive system OptiBond FL* and the two-step self-etching adhesive Clearfil SE Bond.* (Study p.8)

G-ænial Bond performed as effectively as two-step self-etch
and three-step etch & rinse adhesives and was the best in its category



Adapted excerpt from Dr. Uwe Blunck, Charité – Universitätsmedizin Berlin, August 2008.
* GBA 400 is marketed in Europe as G-ænial Bond.
* Not a registered trademark of GC.

Clinically proven

In independent testing by Prof. Dr. Marco Ferrari of Siena University, no post-operative sensitivity was reported by patients receiving restorations following use of G-ænial Bond (Class II and Class V restorations were tested).

At one-year recall, all composite restorations were clinically satisfactory with no secondary caries, marginal discolouration or sensitivity.

Evaluation of restorations at 1 year recall		
	Class II restorations: G-ænial Bond + Kalore Number of patients examined = 40	Class V restorations: G-ænial Bond + Gradia Direct LoFlo Number of patients examined = 50
Number with marginal discolouration	0	0
Number with secondary caries	0	0
Number with positive vitality tests	40	50
Loss of interproximal contacts	0	/
Number of restorations lost	0	0
Number of fractures	0	0
Post-operative sensitivity	0	0

Prof. Dr. M. Ferrari, University Siena, Italy, clinical trial September 2010