



# Liquid diamond

**G-Coat PLUS**  
from **GC.**

A new nano-filled protective coating that will give all your restorations an excellent shine and the best possible start in life.

**GC**

# Introducing a revolutionary coating – **G-Coat PLUS** from **GC**.

You can now give your restorations the “Best of Both Worlds” – an excellent new finish combined with significantly added strength, which is quicker than ever before.

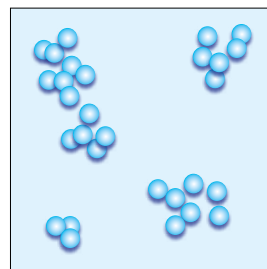
## Experience the “Best of Both Worlds”

G-Coat PLUS is the **first single dispersion nano-filled** protective coating for glass ionomer, composite and temporary restorations. The liquid glaze ensures **improved aesthetics and increased strength, toughness and protection**, as well as providing you **time savings**. No longer is there a need for final polishing of the restoration as G-Coat PLUS provides you with a long lasting gloss and perfect smoothness in a **simple three step application**.

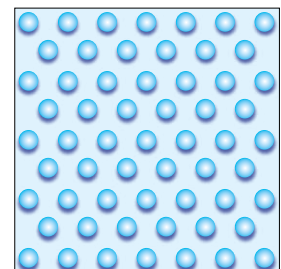
## Optimised resin formulation with nano-filler technology

G-Coat PLUS is quite different to any previous coatings. This is because it is the first dental resin material to incorporate single dispersion nano-filler technology. Nano fillers have previously been utilised as clumped fillers. However, new manufacturing technology enables a **uniform dispersion of nano sized fillers** to enhance the wear resistance and toughness of G-Coat PLUS.

- Nano filler
- Resin matrix



Previous technology – nano fillers are clumped and difficult to disperse uniformly



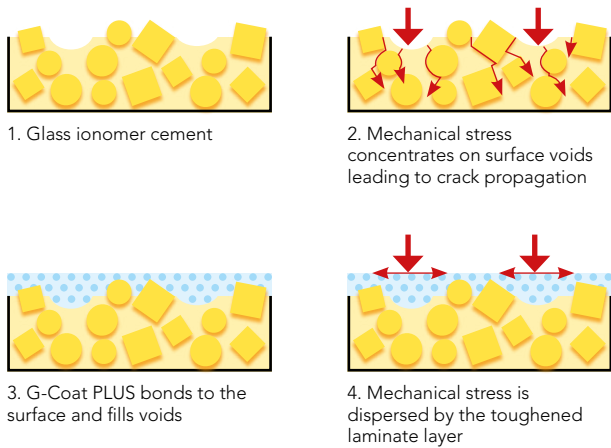
New nano filler technology – nano fillers are uniformly dispersed in G-Coat PLUS

# G-Coat PLUS is the quickest way to finish your...

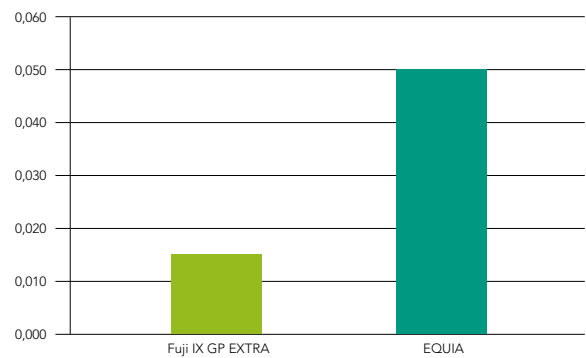
## ...Glass ionomer restorations

One quick application of G-Coat PLUS will **reinforce and strengthen** your glass ionomer restorations. A protective coating of G-Coat PLUS allows the **complete maturation** of the glass ionomer reaction and with delayed saliva exposure creates the strongest possible glass ionomer restorations. Infiltration of G-Coat PLUS provides **internal protection against cracks and voids** to enable increased fracture toughness. On top of this, G-Coat PLUS leaves an **excellent smooth surface** and **un-matched exterior gloss**.

### Lamination strengthening using G-Coat PLUS



### Fracture Toughness (MPa)



Infiltration of G-Coat PLUS into the surface of condensable glass ionomers delivers internal protection against cracks and voids for increased fracture toughness. The dispersion of nano-fillers in G-Coat PLUS reinforces the outer layer ensuring increased wear resistance and protection against acid erosion.

### EQUIA: GC Fuji IX GP EXTRA and G-Coat PLUS



Cavity preparation



Apply conditioner to dentine



Acid etch un-cut enamel margins



Place Fuji IX GP EXTRA



Apply G-Coat PLUS to the glass ionomer and surrounding etched enamel

Dr G. Milicich

### GC Fuji II LC and G-Coat PLUS



Cervical lesion



Apply conditioner



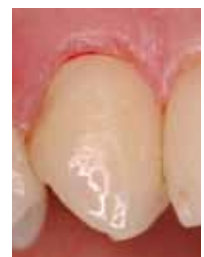
Restoration with Fuji II LC



Contour and finish



Apply G-Coat PLUS



Finished restoration

Dr S. Vouliotis

## ...Composite restorations

One quick application of G-Coat PLUS will immediately transform a newly contoured composite into a high gloss finished restoration. The tough self adhesive coating improves composite **wear resistance and polish retention**. Furthermore, as G-Coat PLUS **bonds to composite restorations as well as surrounding tooth surfaces**, it will provide additional protection to composite – tooth margins.

### G-Bond, Gradia Direct and G-Coat PLUS



Cervical caries

Apply G-Bond.  
Wait 5-10 secondsAir dry with maximum  
pressurePlace composite and  
finish

Dr. J. Sugisaki

Brush apply one  
application of G-Coat  
PLUS

Light cure



Completed restoration



One week later

## ...Temporary crowns

The quickest way to finish your bis-acryl composite or acrylic temporary crowns is to simply apply G-Coat PLUS and light cure – and that is all that is required. G-Coat PLUS will provide an excellent gloss finish that is both **smooth and stain resistant**.



Remove excess

Trimmed Unifast III  
temporary crownOne application of  
G-Coat PLUSCompleted temporary  
crown after light curingThe crown is seated with  
a temporary cement

Dr. G. Millicich

## ...Existing restorations

G-Coat PLUS adheres to existing restorations and can be used as a simple, easy to apply **maintenance coating** for demanding situations where extra wear resistance, **acid resistance** or polish maintenance is required. G-Coat PLUS can be used to re-surface existing restorations that require servicing, e.g. following re-contouring to **remove marginal discoloration** around old composite restorations.

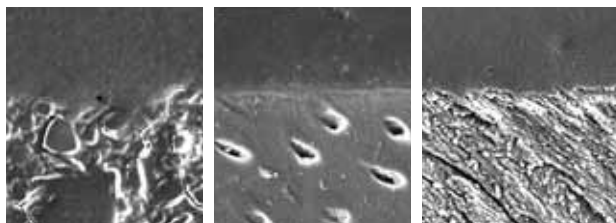
Existing restoration  
with marginal  
discrepanciesAfter re-contouring  
with a fine diamondCompleted restoration  
following application  
of G-Coat PLUS

Dr. J. Sugisaki

## The first self-adhesive coating to GIC and composite

The inclusion of **adhesive monomers** means that G-Coat PLUS gives no compromise adhesion to the surfaces it coats. This ensures the full benefits of lamination and the **highest level of protection** for restoration-tooth margins. The optimum combination of monomers results in G-Coat PLUS being capable of achieving a high degree of polymerisation with **no air inhibited layer** once light cured.

Interface S.E.M.

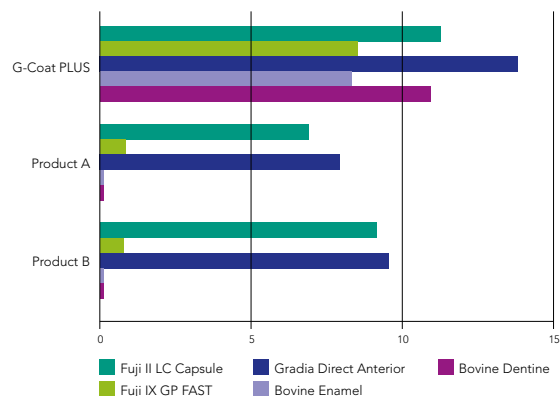


Fuji IX GP/  
G-Coat PLUS

Dentine/  
G-Coat PLUS

Enamel/  
G-Coat PLUS

Tensile Bond Strength (MPa)



## Superior wear resistance and gloss retention

The strong adhesion of G-Coat PLUS to different restorative materials ensures that **wear loss over time is even and controlled**, representing an important development over previous coating technologies where initial wear led to de-lamination.



Finishing  
and polishing



Finished restoration



Final polishing



Surface roughening and loss of  
gloss over time



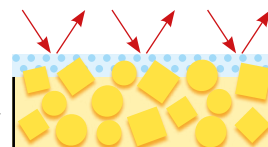
G-Coat PLUS



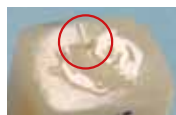
Finished restoration



Coating with G-Coat PLUS  
which contains uniformly-  
dispersed nano fillers



Coating provides a dispersion  
hardened surface for  
superior wear resistance and  
gloss retention



### Laboratory testing of wear resistance

Exceptional wear resistance is demonstrated as part of the laboratory testing of EQUIA (Fuji IX GP EXTRA laminated with G-Coat PLUS) where, following 20,000 cycles, the wear resistance of G-Coat PLUS is similar to the ceramic block.

Tests performed by J. De Munck, Leuven BIOMAT Research Cluster, Catholic University of Leuven, Belgium.

# G-Coat PLUS

- ,'GC,'** The first nano-filled self adhesive coating for glass ionomer and composite restoratives.
- ,'GC,'** Designed for optimum wetting, strong adhesion, enhanced wear resistance and extra protection for margins.
- ,'GC,'** The final lamination that aesthetically enhances all your restorations with excellent colour stability.
- ,'GC,'** The quickest way to finish all of your restorations.

## Step-by-step



Prepare the surfaces to be coated



Immediately apply (within 60") a single uniform layer using a micro tip applicator



Light cure for 20 seconds

## Packaging

G-Coat PLUS  
Nano-filled Self-Adhesive Light-Cured Protective Coating  
4 ml liquid, 20 dispensing dishes,  
50 micro-tips, applicator & 1 applicator holder



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**,'GC,'**