

# G-CEM<sup>™</sup> Veneer

LIGHT-CURED ADHESIVE RESIN CEMENT

For use only by a dental professional in the recommended indications.

# INDICATIONS FOR USE

Adhesive luting of ceramic and composite veneers, inlays and onlays with a thickness (< 2.0mm) and translucency that enables the complete light-curing of the cement.

## CONTRAINDICATIONS

- 1. Pulp capping
- 2. Avoid use of this product in patients with known allergies to methacrylate monomer or methacrylate polymer.

# HOW TO USE G-CEM Veneer SYRINGE

a) Hold the syringe upright
and remove the wing cap
by turning
counterclockwise.
b) Promptly and securely
attach the dispensing tip to
the syringe by turning
clockwise.
c) Place the light protective



c) Place the light protective

cap until use.

NOTE:

i. Take care not to attach the dispensing tip too tightly. This may damage its thread. In order to ensure a tight connection make sure that the threads are free of remnant material.



ii. In order to remove any possible air

entrapped in the dispensing tip, gently push forward the syringe plunger with the tip pointing upwards until material reaches the opening of the tip (Fig. 2).

iii. If blocked, remove the dispensing tip and extrude a small amount of material

directly from the syringe.

iv. Minimize exposure to ambient light. Ambient light can shorten the manipulation time.

v. After use, immediately remove and dispose the dispensing tip and tightly close the syringe with the wing cap.

# CEMENTATION PROCEDURE OF VENEERS, INLAYS, ONLAYS

1. TRY-FIT OF THE RESTORATION

a) Remove the temporary restoration and clean the prepared tooth using

a brush and pumice slurry to remove any remaining temporary cement. Rinse the prepared tooth with water spray.

- b) Check the fit, shade and occlusion of the final restoration.
- c) If necessary, use G-CEM Try-In Paste for trial-fit.

NOTE: HOW TO USE G-CEM Try-In Paste

- i. Hold syringe upright and remove wing cap by turning counterclockwise.
- ii. Promptly and securely attach dispensing tip to the syringe by turning clockwise.

iii. Dispense G-CEM Try-In Paste into the internal surface of the restoration and seat onto the preparation.

iv. Place the wing cap back on the syringe promptly after use.

v. Check fit and aesthetics of the restoration.

vi. Remove restoration and thoroughly rinse the internal surface with water. Make sure that G-CEM Try-In Paste is thoroughly removed before proceeding to bonding step as residual paste would cause a decrease in bond strength.

## 2. PRE-TREATMENT OF THE RESTORATION

a) Make sure that the restoration is pre-treated and handled according to the manufacturer's instructions.

• For glass ceramics: etch with hydrofluoric acid for 20 seconds for lithium disilicate (e.g. GC Initial LiSi Press) and 60 seconds for feldspathic and leucite-reinforced ceramics (e.g. GC Initial LRF BLOCK). Rinse thoroughly with water and dry with oil-free air.

• For zirconia, alumina, hybrid ceramics (e.g. CERASMART) and composite: sandblast\* and blow clean with oil-free air. If necessary, clean in an ultrasonic bath. Rinse thoroughly with water and dry with oil-free air.

NOTE:

i. Follow manufacturer's instructions for the parameters of sandblasting and acid

etching.

\*For CERASMART: If a sandblaster is not available, etch with hydrofluoric acid for 60 seconds.

b) Apply G-Multi PRIMER to the bonding surface of the restoration and dry with an air syringe. In case of using other silane coupling agents, follow the manufacturer's instructions. Do not rinse it.

# 3. PRE-TREATMENT OF THE PREPARATION

a) Clean the preparation with pumice and water. Dry by gently blowing with an oilfree air. For pulp capping, use calcium hydroxide.

b) Select from the following two techniques.

i. Selective etching of enamel

Etch enamel only with 35-40% phosphoric acid gel (e.g. GC ETCHANT) for 10-15 seconds, rinse for 5 seconds and gently dry.

ii. Total-etch technique

Etch enamel and dentin with 35-40% phosphoric acid gel (e.g. GC ETCHANT) for 10-15 seconds, rinse for 5 seconds and gently dry.

c) Apply G-Premio BOND on the prepared surface. Leave undisturbed for 10 seconds. Dry the surface thoroughly for 5 seconds with oil-free air under MAXIMUM AIR PRESSURE.

NOTE:

i. Isolation with rubber dam is recommended.

ii. Make sure to blow dry with MAXIMUM AIR PRESSURE to obtain the thin film.

d) Light cure using a light curing unit. See Table 1 for the irradiation time.

NOTE:

i. Light cure completely for effective bond strength. Lower light intensity will cause insufficient adhesion.

ii. When other bonding agents are used, refer to the IFU of manufacturer of the bonding. Light curing of the bond is recommended to reach optimal bond strength of the system.

	Irradiation time	
	Distance from light guide tip	
Light curing unit	< 10 mm	> 10 mm
Halogen/LED >700 mW/cm2	10 sec.	20 sec.

Table 1: G-Premio BOND Irradiation time

High power LED >1,200 mW/cm2	5 sec.	10 sec.
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#### 4. CEMENTATION

a) Coat internal surface of the restoration with sufficient cement.

NOTE:

i. Exposure to intensive light should be avoided during application as it reduces the manipulation time.

- b) Seat the veneer immediately onto the preparation, exerting moderate pressure.
- c) Make sure that G-CEM Veneer flows around all margins.
- d) Remove excess cement using one of the techniques below:

I. Keep moderate pressure and remove excess cement using a brush. Make sure that excess cement is thoroughly removed from areas of difficult access (e.g. interproximal areas).

II. Tack cure by waving the light guide of a curing light over the excess cement for a few seconds until it reaches a solid rubbery consistency and remove the excess cement using a probe or another appropriate instrument. Reaching a good consistency for excess cement removal depends on the light curing unit being used. It is important to find the best combination of time, intensity, and distance of the curing light in use.

NOTE:

i. If the excess cement is removed before complete hardening, a suitable instrument must be used to hold the restoration in position.

ii. In the case of very fragile veneer edges, the excess cement is carefully removed with a brush or dental gauze in the direction of the gingiva.

iii. D-Light Pro can be used in the detection mode in order to identify any remnants of excess after the removal procedure.

e) While maintaining moderate pressure, thoroughly light-cure each surface of the restoration with a light-curing unit. See Table 2 below for the irradiation time.

Table 2: G-CEM Veneer Irradiation time

Light curing unit	Irradiation time
Halogen/LED >700 mW/cm <sup>2</sup>	20 sec.
High power LED >1,200 mW/cm <sup>2</sup>	10 sec.

NOTE:

i. To avoid the oxygen inhibition layer at the margins of the restoration, cover the

margins with a glycerin gel before final light-curing procedure.

#### 5. FINAL POLISHING

Polish the restoration margins using appropriate instruments for the polishing of composite resins.

## SHADES

Translucent, A2, Bleach, Opaque

## STORAGE

Recommended for optimal performance, store in a cool and dark place (4-25°C / 39.2-77.0°F) away from high temperatures or direct sunlight.

# CAUTION

- In case of contact with oral tissue or skin, remove immediately with cotton or a sponge soaked in alcohol. Flush with water. To avoid contact, a rubber dam and/or COCOA BUTTER can be used to isolate the operation field from the skin or oral tissue.
- 2. In case of contact with eyes, flush immediately with water and seek medical attention.
- 3. Take care to avoid ingestion of the material.
- 4. Do not mix with other similar products.
- 5. Dispensing tips are for single use only. To prevent cross contamination between patients, do not reuse the dispensing tip. The dispensing tip cannot be sterilized in an autoclave or chemiclave.
- 6. Wear plastic or rubber gloves during operation to avoid direct contact with air inhibited resin layers in order to prevent possible sensitivity.
- 7. Wear protective eye glasses during light-curing.
- 8. When polishing the polymerized material, use a dust collector and wear a dust mask to avoid inhalation of cutting dust.
- 9. Avoid getting material on clothing.
- 10. In case of contact with unintended areas of tooth or prosthetic appliances, remove with instrument, sponge or cotton pellet before light-curing.
- 11. Do not use G-CEM Veneer in combination with eugenol containing materials as eugenol may inhibit polymerization. Do not use G-CEM Veneer in combination with substances like hydrogen peroxide (H2O2) as H2O2 may hinder G-CEM Veneer

from setting or bonding properly.

- 12. Do not wipe the dispensing tip with excessive alcohol as this may cause contamination of the paste.
- 13. Dispose all wastes according to local regulations.
- 14. In rare cases the product may cause sensitivity in some people. If any such reactions are experienced, discontinue the use of the product and refer to a physician.
- 15. Personal protective equipment (PPE) such as gloves, face masks and safety eyewear should always be worn.

Some products referenced in the present IFU may be classified as hazardous according to GHS. Always familiarize yourself with the safety data sheets available at: http://www.gceurope.com

They can also be obtained from your supplier.

## CLEANING AND DISINFECTING:

MULTI-USE DELIVERY SYSTEMS: to avoid cross-contamination between patients this device requires mid-level disinfection. Immediately after use inspect device and label for deterioration. Discard device if damaged.

DO NOT IMMERSE. Thoroughly clean device to prevent drying and accumulation of contaminants. Disinfect with a mid-level registered healthcare-grade infection control product according to regional/national guidelines.

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