

# G-CEM CAPSULE

## SELF ADHESIVE LUTING CEMENT IN CAPSULES

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

### RECOMMENDED INDICATIONS

Cementation of all types of all ceramic, resin and metal-based inlays, onlays, crowns and bridges (max. 2 abutments)

### CONTRAINDICATIONS

1. Pulp capping.
2. 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.

### DIRECTIONS FOR USE

Powder / Liquid ratio (g/g)	0.36 / 0.14
Standard Mixing Time (sec.) (4000 rpm at 23°C)	10"
Working Time (min., sec.) (at 23°C)	2'15"

Test conditions :Relative humidity (50+/-10%).

### CEMENTATION TECHNIQUE for ceramics, indirect composites and metal based restorations

#### 1. TOOTH PREPARATION

- a) Prepare tooth in usual manner. For pulp capping, use calcium hydroxide.
- b) Clean the prepared tooth with pumice and water.
- c) Rinse thoroughly with water. Dry by gently blowing with oil free air. Prepared surfaces should appear dry.

#### 2. RESTORATION PREPARATION

Make sure that the restoration is pretreated and handled according to the manufacturer's instructions.

#### 3. CAPSULE ACTIVATION AND MIXING

- a) Before activation, shake the capsule or tap its side on a hard surface to loosen the powder (Fig. 1).
- b) To activate the capsule, push the plunger until it is flush with the main body (Fig. 2).
- c) Immediately place the capsule into a GC Capsule Applier and click the lever once (Fig. 3). The capsule is now activated.  
Note :  
The capsule should be activated just before mixing and used immediately.
- d) Immediately remove the capsule and set it into a mixer (or an amalgamator) and mix for 10 seconds (+/- 4,000RPM) (Fig. 4). More details on mixing times can be found in following chart.



Fig. 1

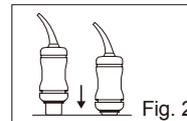


Fig. 2

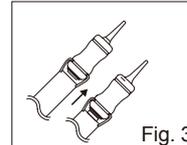


Fig. 3



Fig. 4

#### Mixing time chart

Mixer Speed	Mixing Time
Standard mixer (approx 4,000rpm)	10 seconds
High-speed mixer (over 4,500rpm)	6-8 seconds
Rotational mixer	5 seconds, No centrifuge option

Note: Refer to the respective manufacturer's instructions for use.

#### 4. DISPENSING

- a) Immediately remove the mixed capsule from the mixer and load it into the GC Capsule Applier.
- b) Make two clicks to prime the capsule (Fig. 5). To adjust the direction of the nozzle, hold the applier with the capsule towards you and turn the capsule body.
- c) Extrude directly into the restoration (Fig. 6).

Note:

Ambient light may shorten the working time. It is recommended to diminish the intensity or turn off your operation light during the cementation procedure.

- d) To remove the used capsule, push the applier release button. Twist the capsule and pull upwards.

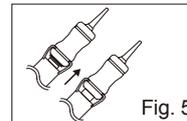


Fig. 5



Fig. 6

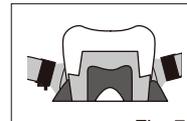


Fig. 7

#### 5. CEMENTATION

- a) Coat the internal surface of the restoration with sufficient cement and seat immediately. The working time is 2 minutes 15 seconds from start of mixing at 23°C (73.4°F). Higher temperatures will shorten working time. Refrigeration of G-CEM Capsules is recommended to extend the working time.
- b) Maintain moderate pressure.

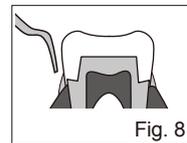


Fig. 8

## 6. EXCESS CEMENT REMOVAL

- a) To remove excess cement, light cure using a visible light curing unit (Halogen, GC G-Light, LED) for 2-4 seconds (Fig. 7) or allow the cement to self-cure until the excess cement feels rubbery.
- b) Remove excess cement with a scaler (Fig. 8).
- c) Light cure each surface for 10 seconds (single surface from occlusal:10 seconds, any other surfaces:10 seconds each) or allow the cement to self cure for 4 minutes after seating of the restoration.

### NOTE:

G-CEM is a dual cure cement. To insure proper curing involving cementation of the following restorations, G-CEM must be used in self cure mode for 4 minutes.

- Metal, metal coping restorations
- Metal-free dark and opaque restorations
- Translucent metal-free restorations greater than 2mm in thickness

- d) Finish and polish margins with appropriate instruments.

## STORAGE

Store the capsules in the original aluminium foil in a cool and dark place (4-25°C) (39.2-77.0°F).

(Shelf life : 2 years from date of manufacture)

## SHADES

A2, AO3 (opaque), BO1 (opaque) and Translucent (Vita® shade)

Vita® is a registered trademark of Vita Zahnfabrik, Bad Säckingen, Germany.

## PACKAGE

1. Single shade package : 50 capsules.
2. Assorted package : 50 capsules (20 each of A2 and Translucent, 5 each of AO3 and BO1).

Average contents per capsule : 0.36g powder and 0.14g (0.13mL) liquid.

Minimum net volume of mixed cement per capsule : 0.17mL.

GC CAPSULE APPLIER (1 piece) is available separately.

## CAUTION

1. In case of contact with oral tissue or skin, remove immediately with a sponge or cotton 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. If the tissue contacted by the material turns white or forms a blister, advise the patient to leave the affected area undisturbed, until the mark disappears, usually in 1-2 weeks.
4. Do not use G-CEM in combination with eugenol containing materials as eugenol may hinder G-CEM from setting or bonding properly.
5. Use a protective light shield or similar protective eye wear during light curing.
6. This product is not indicated for filling or core build-up.

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