

Carbomer and fluorapatite enhanced glass ionomer restorative cement in capsules

GCP GLASS FILL is a new carbomised nano particles containing glass ionomer restorative cement with specially designed filler and fluorapatite/ hydroxyapatite particles for reduced solubility, superior compressive and flexural strength and high wear resistance. **GCP GLASS FILL** is completely biocompatible during its entire operating cycle of production, processing and loss of products during the wear process. It has excellent chemical bonding to dentin and enamel, ensuring a tight seal at the dentinal margins. Remineralisation is accelerated by nanotechnology fluorapatite particles. **GCP GLASS FILL** does not contain any resin, solvents and metals and is as such monomer free. Etching of enamel and dentin is contraindicated. **GCP GLASS FILL** is radiopaque for easy postoperative diagnosis. **Command set with high energy lamp (heat) gives the product its superior characteristics!**

GCP GLASS FILL is designed for the traditional indications as a replacement for glass ionomer cements and composites and has excellent results on a broad range of other indications thanks to the unique patented formulation:

- Permanent Class I and Class II restoration (non load-bearing areas) with heat
- Class I and II restoration in deciduous teeth
- Build-up material for crown and bridge
- Cervical fillings
- Class V

GCP GLASS FILL capsules are easily activated by hand and the content of the capsule is easily extruded with a capsule gun. Capsule mixing is achieved by a high frequency capsule mixer with about 4,300 oscillations/ min. Application of the mixed cement can be done directly into the cavity in one run.

The information for use of a product has to be kept for the duration of application.

DIRECTIONS FOR USE

1. Tooth Preparation

Clean the cavity preparation with water, cleaning with EDTA is allowed but not necessary. Rinse thoroughly and dry, but **do not** desiccate. If desired, place a metal (for a better thermal conductivity) matrix band.

Direct pulpa capping with **GCP GLASS FILL** is **contraindicated**. To deep areas or possible pulpa exposure apply appropriate hard setting liner.

2. Activation and Mixing

Before activation shake the capsule or tap its side on a hard surface to loosen the powder. For activation push the plunger on a plane surface to the end of the capsule. Insert the capsule into a universal capsule gun and click once to standardize. Insert the capsule into a mixer and mix the capsule for **10-15 seconds with high frequency mixers**. **Remove the pin from the nozzle after mixing**. Insert the capsule into the capsule gun and pull the lever 2 times (2 clicks) to prime. Extrude the **GCP GLASS FILL** directly into the cavity. The capsule activation, mixing and cement dispensing should be carried out in sequence without pausing. Within **15 seconds** maximum after mixing, start to extrude the mixture directly into the preparation.

Immediately tightly close the aluminium bag after taking out capsule(s).

3. Filling

Extrude the mixed **GCP GLASS FILL** out of the capsule directly into the prepared cavity with a capsule gun. Please ensure that no air bubbles are included.

Apply **GCP GLOSS** with a bold instrument or a pellet/sponge onto the surface of the restoration.

Model the cement with a modelling instrument moistened into **GCP GLOSS** within the **working time 1:15 minutes (at 23 °C or 74°F)** and remove the surplus of **GCP GLASS FILL**.

Remove the matrix band (if applied) when the cement has achieved clinical set (max. **3:30 minutes** after application and curing).

Important: Higher temperatures during setting will shorten the setting time, lower temperatures will prolong the working time. The best results for setting are achieved with a light cure device that has an output of 1400 mw/cm² for 60-90 seconds (max. 60°C or 140°F). An overextended working time will cause the loss of adhesion to the dental enamel and the dentin.

4. GCP GLOSS

Apply **GCP GLOSS** in order to easily modulate the restoration. It protects against moisture and desiccation during curing. Overall it

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gives a protective coating on the surface of the restoration with enhanced product characteristics.

5. Finishing

It is recommended that the finishing and polishing can be continued after approximately **4 minutes** after the start of the mixing or earlier if heat is applied for faster setting.

The finishing and polishing can be done immediately after final setting with Extra-Fine, Friction Grip diamonds under water-cooling. Clinical experiences have shown that the best results are achieved with diamond polishing burs and yellow rings.

When finished, instruct the patient not to expose the new filling to severe pressure for about one hour.

6. Conclusive Notes

This product is only to be applied by a dental professional in the manner as described in these instructions.

Do not use **GCP GLASS FILL** on patients who are allergic to the material. In case of allergic reactions, immediately stop the application and advise the patient to consult a doctor. An operator, who has a history of allergy to glass-ionomer cements, should not handle **GCP GLASS FILL**.

Do not allow the cement mixture to contact the oral tissues or skin. In case of contact, remove the material with absorbent cotton soaked in alcohol and rinse with water.

Avoid eye contact of the cement mixture. In case of contact, immediately flush with water and seek medical treatment.

Do not use any powder or liquid to adjust the viscosity of the mixed cement.

7. Storage

Store **GCP GLASS FILL** in the original aluminium bag in a cool place at 4-25 °C (39-78 °F). The temperature should not exceed 25 °C (78 °F). Do not use after expiry date. The shelf life is 2 years.

8. Technical information (at 23°C)

Capsule mixing time: 10-15 sec with high frequency mixers.

Time of initial extrusion after mixing: max 15 sec.

Working time (including Mixing-Extruding time): 1:15 min.

Net Setting time: 3:30 min.

Start finishing: 4:00 min after application.

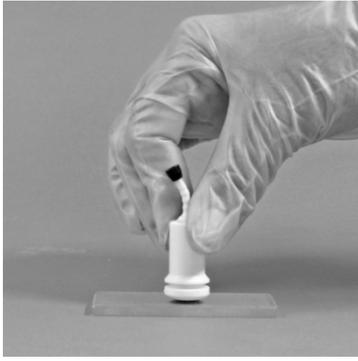
9. Patent information

GCP GLASS FILL (and its method) are patented for dental use and are optimised for command setting when heat is applied.

Containing product is produced under license of GCP Dental BV by First Scientific Dental GmbH, Elmshorn Germany
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Instruction for activating and mixing GCP CAPSULE



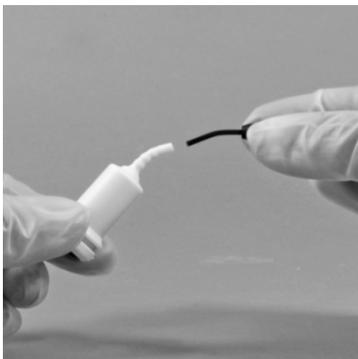
Before activation shake the GCP CAPSULE to loosen the powder.
For activation press the plunger on a plane surface to the end into the capsule.



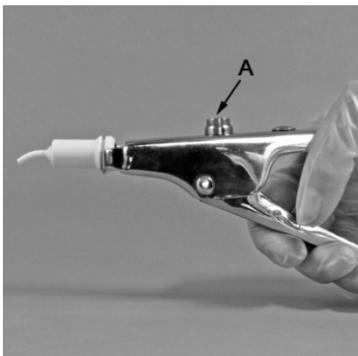
Insert the GCP CAPSULE into the universal capsule gun and **click once** to standardize.



Insert the GCP CAPSULE into a mixer (or an amalgamator), close lid and mix immediately for 10-15 seconds (about 4300 oscillations/ min).



Remove the pin from the nozzle after mixing.



Insert the GCP CAPSULE into the capsule gun. Pull the lever 2 times (2 clicks) to prime the GCP CAPSULE. Extrude the content directly in to the prepared surface. Unlock the gun and remove the capsule.