Glass Ionomer Dental Cement

(Type II: Lining and Restoration)

Instructions for Use

1. Product Description

This self-curing, conventional glass ionomer cement is indicated for lining and restoration procedures within dentistry. The product is a two-component system consisting of a powder and a liquid.

This material is for professional dental use only.

2. Composition

- Powder: Aluminosilicate, aluminum phosphate, fluorite, sodium fluorosilicate, quartz sand, pigments.
- Liquid: polyalkenoic acid, acrylic acid, ammonium persulfate, tartaric acid, water.

3. Indications

This material is indicated for:

- Restoration of anterior Class III cavities;
- Restoration of cervical (Class V) and small, non-load-bearing cervical lesions;
- Single-surface (conservative) Class I restorations in primary molars and in permanent teeth where occlusal stress is low;
- Base or liner under composite or amalgam restorations ("sandwich" technique);
- Temporary or intermediate restorative material for caries control, atraumatic restorative treatment (ART), or as a provisional filling;

4. Contraindications

- Pulp Capping: This product is not suitable for direct pulp capping. In deep carious lesions, where the remaining dentinal wall is thin or a pulp exposure is suspected, a calcium hydroxide liner should be placed first.
- On rare occasions, certain individuals may exhibit a hypersensitivity response to this product. In the event of any adverse symptoms, product use should be suspended, and the patient should be referred for a medical evaluation.

5. Clinical Procedure

5.1. Mixing

5.1.1. Environment: Perform mixing at an ambient temperature of 23°C (73.4°F) and a relative humidity of 50 ± 10%.

5.1.2. Ratio: Select the powder-to-liquid ratio based on the intended application (by mass):

Lining/Base: 2.3:1

Restoration: 2.7:1

5.1.3. Technique: Dispense the specified quantities of powder and liquid onto the mixing pad. Utilizing the plastic spatula, incorporate the powder into the liquid in two equal portions. Initiate mixing by incorporating the first portion of powder into all of the liquid for 10 seconds. Subsequently, incorporate the remaining powder and continue mixing until a homogeneous, uniform consistency is achieved, completing the procedure within a total mixing time of 30 seconds.

5.1.4. Working Time: The working time is approximately 1 minute and 45 seconds from the start of mixing. Do not manipulate the material beyond its glossy working phase.

5.1.5. Placement: Apply the mixed cement to the preparation while it is still glossy. Isolate the field to prevent moisture contamination.

5.2. Setting and Finishing

5.2.1. Setting Time: The cement will undergo its initial set within 1.5 to 6 minutes. Avoid trimming or polishing during this elastic stage to prevent damage to the marginal integrity.

5.2.2. Initial Cleanup: Promptly remove any excess cement with a damp cotton ball before the final set. Once set, removal is significantly more difficult.

5.2.3. Final Finishing and Polishing: Perform final finishing and polishing after 24 hours to achieve maximum compressive strength.

5.2.3.1 Smooth any gross irregularities.

5.2.3.2 Use light pressure and high speed when polishing.

6. Storage and Handling

6.1. Shelf Life: 3 years from the date of manufacture. Refer to the packaging for the batch number and expiration date.

6.2. Conditions: Store in a cool, dry, and dark environment. This product is sensitive to heat and moisture.

6.3. Closure: Immediately replace the bottle caps after each use to prevent moisture contamination, which can compromise performance.

7. Shades

Shade 1, Shade 2, Shade 3

8. Specification

- Powder: 3 bottles (20g each) in shades 1, 2, and 3.
- Liquid: 3 bottles (16mL each).

9. Cautions

- In case of contact with oral tissue or skin, immediately wipe the area clean with an alcohol-saturated sponge or cotton pellet, and subsequently irrigate with water.
- In case of ocular exposure, flush the eyes immediately and thoroughly with water and seek prompt medical attention.
- Do not cross-contaminate or mix components from different glass ionomer products.

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