

GRADIA PLUS MODULAR COMPOSITE SYSTEM FOR INDIRECT RESTORATION

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

INDICATIONS FOR USE

- Crown and Bridge work (with metal backing)
- Removable and fixed dentures, crowns, Inlays, Onlays and Laminated Veneers
- Implantation of crowns
- Reproduction of gum tissue for crown restorations

CONTRAINDICATIONS

- Avoid use of this product in patients with known allergies to methacrylates, methacrylate polymer or alcohol.

PRODUCT DESCRIPTION

GRADIA PLUS is a light-cure material for crown and indirect restorations. The matrix resin is a methacrylate polymer or alcohol.

The particle size of inorganic fillers ranges from 0.02-10 μm for OPACQUE, GUM SHADES OPACQUE, 0.01-5.5 μm for PASTE HB, PASTE LB, GUM SHADES HB, GUM SHADES LB.

The total amount of inorganic filler is approximately 31.75 wt% for OPACQUE, GUM SHADES OPACQUE, 66.80 wt% for PASTE HB, PASTE LB, GUM SHADES HB, GUM SHADES LB.

COMPOSITION

OPACQUE PASTE HB, PASTE LB, GUM Barium glass, dimethylacrylate, silicon dioxide, initiator, pigment, stabilizer

LUSTRE PRINT Multifunctional monomer, initiator, methacrylate, silicon dioxide pigment

GRADIA PLUS Lustrate Paint Diluting Liquid Methacrylate, Photoinitiator

GRADIA PLUS Modeling Liquid Dimethylacrylate, silicon dioxide, stabilizer, initiator

PROCEDURE

A. Anterior / Posterior Veneer Crown (with metal backing)

- Wax-up framework conventionally, occlusal surface should face anteriorly. Prepare wax in 1mm thickness. Apply retention beads to the facing surface. Cast in the usual manner.
- Impressions of the metal frame with 50 micron aluminum oxide. Clean and dry the wax model.
- Impressions of the metal frame with CERAMIC PRIMER (GC) on the return area. Allow dry.

2. Build up veneer

- Apply a layer of OPACQUE over retention area and light cure for 1 minute. Repeat this process every 1-2 mm until the wax is completely covered.
- Apply Dentin shade, BUILDING UP to the desired thickness. Pre-cure.

OPACQUE is a flowable, translucent liquid can be used. Progressively thin apply Lustrate Paint (A) in 0.2-3 mm width around the cervical area as required. Light cure for 1 minute.

Apply Enamel shades progressively from the incisal edge to the incisal tip for 3 minutes.

Adjust contour and characterize surface with diamond and carbide burs. (At this time, scrape off all inflection lines on the surface.)

3. Glazing (Coating and Polishing)

- Polishing: Apply LUSTRE PRINT with an airbrush.
- Roughen the resin surface using a carbide bur or sandblast (1.5 kg/cm²) for obtaining the mechanical retention. Light cure for 2 minutes.
- Immediately apply a silane coupling agent (e.g. CERAMIC PRIMER (GC)) to the resin surface and dry.
- Apply a thin layer of (0.1 mm) Lustrate Paint over the resin surface. Light cure for 1 minute.
- To prevent contamination, wash the brush with water and dry every time.

3. Polishing method

Use proper instruments and burs to polish and finish the resin surface conform to the wax model. Apply the polish and finish in proper way and seal the surface has proper shine.

B. Anterior or Posterior Jacket Crown (metal free)

- Preparation of the wax model:
 - Prepare the die stone in usual manner.
 - Apply DE-HARDNER to the die stone surface.
 - Place a thin layer of wax on the die stone.
 - Apply a layer of paraffin wax as die spacer as required.
 - Use a thin layer of wax as a composite separator.

2. Special pre-cure treatment

- In case of a metal crown, apply first a thin layer of OPACQUE on the metal surface.
- In case of a full abutment tooth, apply first a thin layer of OPACQUE on the die.

3. Build up of Crown

For following build up on a section, see instructions for building up PROCEDURE A. Section 2.1 to 2.6 above.

4. Glazing

See instructions BUILDING UP PROCEDURE A. (Section 3.)

5. Cleaning, treating restoration for bonding

Roughen the inner surface of Jacket crown using aluminum sandblast (1.5 kg/cm²) by applying a mechanical vibrator. And then clean with gun.

6. Cementation of the crown

- Apply a thin layer of a silane coupling agent (e.g. CERAMIC PRIMER (GC)) to bonding surface.
- Use a direct filling resin cement (e.g. GC-EM Linforce (GC)).

C. Posterior Inlay

1. Preparation of the working model

- Prepare the wax model in the working model (B. Section 1.1 to 4) above.

2. Build up of Inlay

- Prepare the wax model in a dentin color in order to retain the natural tooth color. Pre-cure.
- Note: In case of a wax model, use a wax model recommended to first apply OPACQUE to the cavity floor. Light cure for 1 minute.
- Build up the wax model with Lustrate Paint. Final cure. Continue BUILDING UP PROCEDURE A. Section 2.

3. Glazing

See instructions BUILDING UP PROCEDURE A. (Section 3.)

II. ADDITIONAL APPLICATION AND REPAIR

1. Roughen the resin surface using a carbide bur or sandblast (1.5 kg/cm²).

- Immediately apply a silane coupling agent (e.g. CERAMIC PRIMER (GC)) to the resin surface and dry.
- Apply Enamel shades, etc. as required.

2. CHAIRSIDE MAINTENANCE OF THE WORKING MODEL

REPAIRING CRACKS INTERNALLY

- Apply a thin layer of a silane coupling agent (e.g. CERAMIC PRIMER (GC)) to bonding surface.
- Use a direct filling resin cement (e.g. GC-EM Linforce (GC)).

C. Posterior Inlay

1. Preparation of the working model

- Prepare the wax model in the working model (B. Section 1.1 to 4) above.

2. Build up of Inlay

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- Note: In case of a wax model, use a wax model recommended to first apply OPACQUE to the cavity floor. Light cure for 1 minute.
- Build up the wax model with Lustrate Paint. Final cure. Continue BUILDING UP PROCEDURE A. Section 2.

3. Glazing

See instructions BUILDING UP PROCEDURE A. (Section 3.)

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- Apply a thin layer of a silane coupling agent (e.g. CERAMIC PRIMER (GC)) to bonding surface.
- Use a direct filling resin cement (e.g. GC-EM Linforce (GC)).

3. CHAIRSIDE MAINTENANCE OF THE WORKING MODEL

REPAIRING CRACKS EXTERNALLY

- Apply a thin layer of a silane coupling agent (e.g. CERAMIC PRIMER (GC)) to bonding surface.
- Use a direct filling resin cement (e.g. GC-EM Linforce (GC)).

4. Repair the resin surface

- Use a fine abrasive paper to repair the resin surface.
- Use a fine abrasive paper to repair the resin surface.

5. Polish and finish

- Use a fine abrasive paper to repair the resin surface.
- Use a fine abrasive paper to repair the resin surface.

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