

## **PRIZMA**

### **Self-cure composite material**

#### COMPOSITION

Bisphenol A-glycidyl methacrylate (Bis-GMA), Triethylene glycol dimethacrylate (TGM), Diacryl, Ionol, Dihydroxyethyl para-toluidine (DHEPT), Uvinol, Peroxide bensoil, Barium aluminoborosilicate glass, Acetic acid, Silane, Cabosil, Aerosil, Oxide aluminium, Orthophosphoric acid, Ottolum, Pigments

#### PURPOSE

The filling self-cure material "PRIZMA" is designed for restoration of the teeth cavities of III, IV, V classes and partially I and II classes for adults and children.

#### PROPERTIES

"PRIZMA" is composite material with the average dispersion of the filler particles up to 3 mm. Barium-aluminum-borosilicate glass is used as filler. The universal binder BIS - GMA and monomers - diluents are the basis of the polymer matrix. The degree of inorganic filler contained in the material is about 74%. Composite filling material "PRIZMA" consists of two pastes: basic and catalyst, which are mixed at the ratio of 1:1 in special mixing pads.

The basic paste is produced in 3 colors according to Vita scale: A3, B2, C2. Additional shades may be obtained by mixing various colors of basic paste before it is mixed with catalyst paste.

"Prizma" set includes:

- basic and catalyst paste of one color;
- the Bonding Agent (Prizma Adhesive), which includes base and catalyst liquids, to be mixed before use;
- etching gel

The Prizma material is radiopaque, fluorescent, color stable.

#### CLINICAL PROCEDURE

##### Shade Selection

Enamel surfaces should be clean. If necessary clean them with pumice or prophylaxis paste. Rinse with water. Make sure teeth are hydrated before selecting the shade to be used.

##### Cavity preparation

Do not form acute or straight angles in the cavity. The basic requirement of cavity preparation is that the enamel should be removed at the angle of 45° which increases the retention area. For this purpose one may use diamond drills, pins or discs.

For Class IV defects, in cases when the remaining tooth enamel is not sufficient for restoration, it is recommended to use pin installation.

For Class III and V cavities, the teeth enamel is treated in accordance with generally accepted methods.

##### Isolation

Dryness is essential to good bonding. Avoid contamination of etched and dried tooth surface. Rubber dam or cotton rolls are used for isolation. Isolation of adjacent teeth is made with matrix strips.

##### Pulp Protection

If the cavity is deep calcium hydroxide liner is required.

**CAUTION!** Temporary materials and materials used for lining must not contain eugenol.

##### Gel Etch

When Prizma-adhesive for enamel is used, the area to be etched should include the enamel walls of the cavity and enamel surface surrounding the cavity. When less than 2 mm of enamel surface is available around the cavity, supplemental retention (pins and other means) should be employed. Place a plastic matrix strip, if necessary, to prevent etching adjacent teeth.

When adhesive for enamel and dentin is used, both enamel and dentin should be etched.

Using a brush or applicator, apply gel to surfaces to be conditioned. Enamel is etched for not less than 15 seconds, dentin – for 5-10 seconds depending on indications. Then rinse the gel off with water during 15-30 seconds, dry the tooth surface with air, avoiding overdrying dentin. The correctly etched surface has dull chalk-white shade. The etched and dried surface should be protected from saliva. If contamination occurs, the tooth should be again etched for 10 seconds, then rinsed and dried again.

**CAUTION!** The rinse water should not contain additives, such as mouthwash, since these will harm adhesion of composite filling material to the hard tissues of the tooth. For drying the cavity do not use alcohol or ether, as they may harm adhesion of the filling material to cavity surface.

##### Bonding Agent

Dispense one drop of base and catalyst liquids into mixing cell and mix them during 10 seconds. Apply immediately a thin layer to the etched enamel surface, distribute evenly by the stream of dry air. Adhesive's working time is up to 3.5 minutes. The filling material may be applied in 1.5 - 3 min not waiting till the bonding is completely hard.

##### Mixing the Composite material

Dispense onto the mixing pad equal volumes of base and catalyst paste, using for this two different ends of spatula. Mix for 30 seconds to receive a uniform paste. Insert it and rub into prepared cavity with respective instrument. Working time: 2 min 30 seconds – 3 minutes.

In order to contour the seal and prevent material from air oxygen inhibition, use a matrix strip. Hold the matrix strip on the tooth until the composite is fully polymerized. Polymerization time is up to 5 minutes.

##### Finishing

Finishing may begin 7-10 minutes after mixing. Shaping and contouring of the seal should be made with the help of finishing drills with water cooling. A smooth surface is obtained with the use of various aluminum oxide discs, strips, silicon polishing instruments.

#### CONTRAINDICATION

Contains methacrylate components. Should not be used with patients having allergy or increased sensitivity to methacrylate components.

#### POSSIBLE SIDE EFFECT

The composite material and adhesive may cause allergic reaction. Etching gel cause irritation of oral mucosa and skin by contacting them.

#### PRECAUTIONARY MEASURES

The composite material and adhesive may cause skin irritation. Avoid contact of material with eyes, skin and clothes.

Etching gel contains orthophosphoric acid. Avoid contact with skin, oral mucosa, eyes, clothes. In case of contact with these rinse immediately with big amount of water.

Don't let the material to be swallowed. Don't use the material for purposes not provided by this instruction.

#### TRANSPORTATION

Prizma may be transported by all types of covered transport vehicles in accordance with rules of transportation for each type of transport. It may be transported via post, by cars and in containers. Temperature during transportation should be within  $+(5+24)^{\circ}\text{C}$

#### STORAGE

Prizma should be kept in a place not exposed to direct sunlight at temperature not above  $+(2-24)^{\circ}\text{C}$ .

#### SHELF LIFE

Shelf life of the material is as follows:

- if stored at the temperature of  $+(12-24)^{\circ}\text{C}$  – 1 year;
- if stored at the temperature of  $+(2-4)^{\circ}\text{C}$  – 2 years

After storage in refrigerator the filling material before use must be kept at room temperature for at least 1 hour.

#### PRODUCER GUARANTEE

The producer guarantees correspondence of Prizma material to all technical requirements on condition of observing all rules of utilization, transportation and storage.

#### PLACES OF USE

For use in hospitals, dentistry clinics and mobile medical complexes.

#### DISPOSAL

Disposal of material with expired shelf life or which became unfit for other reasons, should be made through collection of material into container with subsequent removal by a specialized agent. Waste is rated as class A risk level (epidemiologically safe waste close to solid household waste)

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