

PRIZMAFIL

Light-curing composite material

COMPOSITION

Urethane-methacrylate, Bisphenol A-glycidyl methacrylate (Bis-GMA), Triethylene glycol dimethacrylate (TGM), Camphorquinone, Trimethacrylate triethanolamine (TMATEA), Ionol, Flublau, Silane, Barium aluminoborosilicate glass, Acetic acid, Orthophosphoric acid, Aerosil, Pigments, Surfactant fluid, Blue pigment

PURPOSE

PRIZMAFIL is indicated for teeth filling and for restoration of anatomic form of tooth. It is a visible light (450-500 nm wavelength) curing composite filling material.

PROPERTIES

PRIZMAFIL is a composite material on the basis of an organic binder and barium-aluminum-borosilicate filler. As per the size of particles it is classified as mini-filled.

The set contains:

- **light-cure filling paste** – is uniform paste without bubbles and dry pieces, having flexural strength not less than 50 MPa, water absorption not more than 50 mg/mm³, depth of polymerization for 10 seconds at least 2.5 mm and diametric strength not less than 37.9 MPa
- **light-cure enamel adhesive** – which serves to provide adhesion of filling composite paste to the tooth enamel. Has the appearance of transparent yellow liquid without impurities. Has polymerization depth of not less than 3 mm for 10 seconds and diametric strength of not less than 31 MPa
- **etching gel** – which serves the purpose of etching enamel and creating roughness on its surface, which provides adhesion of composite filling material to the tooth. It is uniform gel of blue color without impurities, having content of phosphoric acid – $34 \pm 1.5\%$, consistency 25 ± 5 mm and flowability allowing it to keep form for at least 1 minute.

CLINICAL PROCEDURE

Shade Selection

Selection of shade of the filling material is done after cleaning enamel surface of the restored tooth. If necessary clean the surface with pumice or prophylaxis paste. Rinse with water. Make sure teeth are hydrated before selecting the shade to be used. PRIZMAFIL set may contain light-cure paste of the following Vita shades: A1, A2, A3, A3.5, OA3.5, B2, C2, C4, OB2.

CAVITY PREPARATION

Prepare the carious cavity thoroughly according to Black's method to secure a good bonding of the filling. It is required that the enamel should be removed at an angle of 45° using diamond drills or pins with the aim of increasing retention area.

Isolation

Dryness of the prepared cavity is essential for good adhesion of restoration material to the tooth tissue. Avoid contamination of the etched and dried tooth surface. Rubber dam or cotton rolls can be used for isolation. Adjacent teeth are isolated with the use of matrix stripes.

Pulp Protection

If the carious cavity stretches beyond the enamel-dentin border it is necessary to use a lining. PRIZMAFIL is low-toxic and does not require thickening of the lining. If the cavity is deep and close to the pulp, it is recommended to use the layer of calcium hydroxide lining, in other cases it is recommended to use lining made of glass ionomer materials.

CAUTION! Do not use eugenol-containing materials for lining

Gel Etch

When "Prizmafil-adhesive" for enamel is used, the area to be etched with gel should include the enamel walls of the cavity and enamel surface around cavity. When less than 2 mm of enamel is beyond the cavity, supplemental retention (such as pins) should be employed. Place matrix strip, if necessary, to prevent etching adjacent teeth.

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

Using brush or applicator, apply gel to etched surfaces. Treat enamel for at least 15 seconds, dentin – from 5 to 15 seconds depending on conditions. After etching rinse teeth for 15-30 seconds with a spray of water; then dry with pure air jet. Correctly etched enamel should have a dull (whitish) appearance. Prevent saliva from contacting the conditioned surfaces. If contamination occurs, the tooth should be etched again for 10 seconds, then rinsed and dried.

CAUTION! The rinse water should not contain additives, it is prohibited to use mouthwash, since these reduce the adhesion of composite filling material to the tooth tissue. The air should not contain any oil mist or water vapor. For testing the quality of air jet you should blow air gently over the dental mirror (to detect water) and then over cotton roll (to reveal the presence of oil). Do not use alcohol or ether - they reduce the adhesion of composite filling material to the cavity walls.

Placing light-cure adhesive

Place adhesive on the etched enamel with brush or applicator. Blow with air to make a thin film covering all bonded surfaces, then cure the adhesive for 10 seconds with the light of 450-500 nm wavelength.

Filling cavity with the composite paste

Dispense the necessary amount of PRIZMAFIL of the selected shade onto a mix pad (through the clock-wise turn of the syringe pin). Insert into cavity to cover etched enamel and shape it with special instruments for use with composite materials. The composite material is placed by layers of not more than 2 mm. If the cavity is deep then after placing each layer it has to be cured. Matrix strip is to be used to contour the filling; keep the strip in place until the composite is fully cured.

Curing

Every inserted layer should be light-cured for at least 20 seconds if halogen source of polymerization is used, and at least 10 seconds for light-emitting diode one. If composites of dark and opaque colors are used, the time of curing should be increased. For Class III and IV restorations, the cure time should be increased by exposing the composite to light additionally through buccal and lingual enamel walls.

Finishing

Remove matrix strip before finishing. Use water spray during shaping and contouring. Finishing and polishing may be started immediately after hardening of the composite with the use of various grits of hard-alloy or aluminum oxide discs and strips.

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

Don't use Prizmafil for purposes not provided by this instruction. In order to avoid allergic reaction on methacrylate components it is recommended to use gloves (polymer, vinyl or latex). Prevent uncured filling paste from dropping on eyes, oral mucosa, skin and clothes. If this happens, they should be washed with large amount of water. In case of contact with eyes, wash with water and apply to doctor.

TRANSPORTATION

Prizmafil 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 $+(5+24^{\circ})^{\circ}\text{C}$

STORAGE

Prizmafil should be kept in a place not exposed to direct sunlight at temperature not above $+25^{\circ}\text{C}$. If refrigerated during storage, the filling material and Primer-adhesive before use must be kept at room temperature for at least 1 hour.

SHELF LIFE

Shelf life of the material is 2 years. Do not use the material after expiration of shelf life

PRODUCER GUARANTEE

The producer guarantees correspondence of Prizmafil material to all technical requirements on condition of observing all rules of utilization, transportation and storage. Guaranteed shelf life of the material is 2 years

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.

Producer: "Stomadent LLC"

11 Garshina Street, Tomilino, Moscow region, 140070 Russia

Tel. (+7-495) 514-93-47, 514-93-13 Tel/fax. (+7-495) 514-93-46

E-mail: info@stomadent.ru

www.stomadent.ru