

INSTRUCTION FOR USE

BioStructure MTA

Root Repair Material

COMPOSITION

Powder: Mineral Trioxides (Tricalcium Silicate, Dicalcium Silicate, Tricalcium Aluminate) Zirconium Oxide

Liquid: Calcium Chloride in purified water

Dental product BioStructure MTA is produced as mixing liquid powder of the prolonged hardening and the fast setting.

INDICATIONS

Dental product BioStructure MTA is used for

- Pulpotomies in primary teeth
- Cavity liner in recurrent Caries
- Retrograde filling of Root canal
- Apexification and Apexogenesis
- Perforation Closure
- Root Resorption

SPECIAL PRECAUTIONS

Drug idiosyncrasy.

Don't misuse.

Avoid contact of unset mixed paste with oral mucosa.

POSSIBLE ADVERSE EFFECTS

If the conditions of storing, transporting and following the instructions are satisfied, there are no adverse effects.

Hypersensitivity against Caustic (High pH) solutions.

COMPOSITION AND CLINICAL PHARMACOLOGY

The ratio of oxides in a powder determines its time of hardening. The mixing at room temperature (18-23)°C and humidity (50±10) % during 1 minute of a powder with the liquid in the ratio 2.8-3.1 results a plastic paste convenient in application.

Operational time of a fast setting product makes 2-4 minutes, the time of hardening is 15-18 minutes. Operational time of a prolonged hardening product makes 10-12 minutes. The product hardens in the canal from 24 hours in conditions of a cavity of a mouth.

During the hardening calcium oxide, interreacting with liquid, turns in calcium hydroxide, ensuring high alkalinity condition (pH 12.8). Then amorphous calcium hydroxide, reacts with oxides of silicon and aluminium, forming active silicates, and strengthens the cement matrix. The formed alkaline cement has anti-bacterial properties and stimulates processes epexesis at treatment of teeth with the not generated roots, stops desiccation of hard tissues, stimulates the formation of the secondary dentine at the treatment of caries.

Dental product is produced for using in aggressive biological matrix with the temperature range between 32°C and 42°C (in the mouth cavity at the temperature (37±1)°C and humidity 60-90%).

The product possesses high biocompatibility, slight solubility and high mechanical resistance.

METHODS OF ADMINISTRATION

Dental product BioStructure MTA is mixed at room temperature (18-23)°C and humidity (50±10) %. On the block for mixing it is necessary to mix 1 dose (1 g) of the powder with 2 ml of the liquid within 30-40 seconds before receiving thick soft mass.

Pulpotomy

Remove the roof of Pulp Chamber and all remnants of coronal pulp tissue in primary teeth up to bottom of pulp chamber, disinfect and clean it thoroughly with root canal irrigation. Use a small applicator to apply mixed BioStructure MTA material on floor of pulp, remove excess material at the site with a dry cotton pellet, close it with Glass Ionomer cement to ensure sealing.

Retrograde filling of Root canal

For retrograde filling of a tooth root apex under anesthesia you should provide access to a tooth root apex (dissect a mucous supra-bony flap), carry out root apex resection and with the help an ultrasonic tip with special diamond hand piece to form a cavity for retrograde filling. After maintenance of hemostasis the cavity in a tooth root apex is filled by the received paste. It is necessary to replace the bone defect with the osteoplastic product, the flap is fixed by the suture.

For Perforation Closure

For closure of the perforation hole into the washed and dried canal you should insert product into a zone of defect, seal and check correctness of its inserting using X-ray. Then the rest canals you should obturate, isolate with the lining product and restore the tooth crown.

For Root Resorption

For sealing a cavity at the resorption of tooth root it is necessary to provide the access to a zone of the resorption and to carry out tool processing. Then place a product received by mixing of a fast-setting powder with the distilled water (X-ray control) in a cavity of the resorption and isolate its surface by glass- ionomer cement.

For Apexification and Apexogenesis

For apexification of a root you should insert the product into the apical zone and seal, using amalgamate plunger and cotton ball or paper points into the prepared canal. The paste can be condensed, using ultrasonic hand piece without water sprinkling, on average capacity.

Under the X-ray control it is necessary to check the correctness of the product accommodation, which should remain as a constant component of a seal of the root channel. Then the rest canals you should obturate, isolate with the lining product and restore the tooth crown.

For Cavity Liner on Recurrent Carious Area

For a pulp covering the prepared cavity should be processed with antiseptic and a small amount of the product is placed on the naked site with the help of the spherical applicator. Then this zone is covered with a temporary product before the following visit. At the positive dynamics in the following visit it is necessary to remove the temporary product, the medical covering should be isolated with the glass- ionomer cement and restoration is finished.

PRESENTATION FORM

Powder	1 doses of 1 g	Ref No 005-01-0102
Liquid (bottle)	2 ml	
Mixing Pad	1 piece	
Dispensing Spoon	1 piece	

STORAGE

Store at a temperature of 5°C to 25°C. Keep out of dry! Warning! Avoid the contact of the powder with the air. Tightly seal cap of Powder bottle after every use.

Do not use after expiry date.

Shelf life: 3 years from date of manufacture.

