

### *Dear Colleagues!*

*This catalogue is a collection of full-text instructions for all the products intended for the professional dentistry of the Russian manufacturer NKF OMEGA-DENT.*

*For the last 15 years our company has developed and put into production a wide range of high-quality products, which conform to the properties of foreign top-level products and standards, and in some cases even exceed them.*

*In the development of the materials "OMEGA-DENT" keeps the main criteria of "high quality" and "easy to work".*

*The main goal of our company is to create the new things and improve the old ones. In new developments we take into account the modern achievements of the industry and the results of the latest scientific research in clinical dentistry.*

*As components for our materials we use raw materials and chemical reagents from leading European and American companies, because their products meet the highest quality standards.*

*It is important that consumers were comfortable working with our materials. In designing and assembling the packages of the materials we make preference to the quality and the ease of use of the components, but not their cheapness.*

*During the years of work we gained many reliable partners in all regions of Russia and in some countries of the CIS.*

*List of the companies where you can purchase all the materials of our production is presented in the section "Our partners".*

*Dear Dentists, our honored clients! We hope that our company's products will be the products of your choice and you will appreciate them.*

*Your comments and suggestions are to be sent to:*

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### HYALUOST

#### **Osteoplastic resorbable material containing calcium and phosphorus for filling and restoring bone defects in maxillo-facial surgery**

##### **Properties and the composition**

The novelty of the material "Hyaluost" lays in the technology of synthesis of bioactive amorphous nanosized calcium hydroxyapatite, the sole product of which is microgranules of 0.5-1 micron in diameter. Microgranules composed of nanosized particles of calcium hydroxyapatite sized of 5-10 nm and fibers loosely formed from the same particles incorporated in a polysaccharide matrix.

One of the major differences between technologies for a bioactive, amorphous calcium nanosized hydroxyapatite, a component of the material "Hyaluost" is the absence of by-products and, as a consequence, the inclusion of hyaluronic acid in the synthesis process. This allows for a highly bioactive material with high biocompatibility, has a stimulating effect on cell growth.

Introduced at the point of contact "Hyaluost" activates osteogenesis, enhances the proliferative activity of osteoblasts and stimulates reparative osteogenesis in situ, delays inflammatory processes in bone wound. It is characterized by biocompatibility with the human body and does not cause rejection.

##### **Mechanism of action**

Hyaluronic acid with included nanodispersed hydroxyapatite calcium stimulates the growth of cells. "Hyaluost" greatly contributes to activation of reparative osteogenesis in the field of trauma. Accelerating the process of differentiation of the newly formed bone tissue, which is expressed primarily in a pronounced increase in the proportion of bone regenerate components, as well as a more intense maturation of bone substance. The mechanism of optimization of regenerative process associated with direct exposure to the activating material on endosteal elements that are the primary source of newly regenerated bone.

##### **Indications**

Preparations of "Hyaluost" family can be used as osteoplastic materials, optimizing bone regeneration in dental surgery, as well as in traumatology and orthopedics.

- Periodontology: filling pathological bone pockets, as well as defects at the level of bi- and trifurcations of teeth, augmentation of atrophied maxillary sinus.

- Implantology: sinus lift or raising up the floor of a sinus (subanterior augmentation), filling the alveolar defects to maintain the height of alveolar crest to improve conditions for further prosthetics, filling the defects after extraction in order to provide a better condition for placing an implant.

- Defects after bone resorption: defects after cystectomy.
- Defects after resection of the apical part of a root.
- Defects after extraction of impacted teeth.
- Other bone defects of the alveolar processes or of the facial bones and skull.

"Hyaluost" in granulometric composition divided by fractions:

50-250 micron - small periodontal bone defects;

250-500 micron - larger periodontal bone defects;

500-1000 micron - medium and small cyst and alveolar defects;

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1000-2000, 2000-3000 micron - large cyst defects and sinus lift.

### **Recommended use**

After the necessary preparatory surgical procedures open the package, remove the protective cap. "Hyaluost" may be placed in the freshly prepared cavity. The material may also be pre-mixed with saline or the patient's blood. The preparation is rapidly saturated with liquid and gets a good adhesion to the surface. You must leave a small empty space in the bone cavity, taking into account the moderate swelling of granules after their contact with tissue fluid. After placing the material to the cavity it is possible to proceed with further surgical manipulations.

### **Package contents and storage**

The product is packed in three glass bottles 0.5 g of each. Product is sterile.

Material should be stored in a cool dry place (+4 to +24°C).

Shelf life is 2 years.

### **HYALUDENT (with chlorhexidine)**

**Solution based on sodium hyaluronate for antiseptic treatment of periodontal pockets**

#### **Biological properties of hyaluronic acid**

Among biologically active substances of natural origin special place belongs to hyaluronic acid. The outstanding properties of hyaluronic acid among other substances are based on its chemical structure. Hyaluronic acid has a large water holding capacity - one molecule of hyaluronic acid binds 200-300 water molecules. Together with other proteoglycans hyaluronic acid is a member of the extracellular matrix. Due to its physical and chemical properties such as high viscosity (specific ability to bind water and proteins to form proteoglycan aggregates), hyaluronic acid contributes to the manifestation of numerous functions of connective tissue.

Hyaluronic acid affects the permeability of tissues and the transfer of other medical substances. Hyaluronic acid plays invaluable role not only as an independent medicine, but also as an instrument of slow transfer of other therapeutic agents to the tissues, providing also their controlled release. Biologically active components may be covalently or non-covalently bound to hyaluronic acid. By varying the concentration of hyaluronic acid, it is possible to control the rate of its degradation or diffusion and, therefore, the speed of delivery of a medicine to the tissues. Hyaluronic acid creates a depot of a medicine in the place of application and gradually collapsing frees a medicine, improving its pharmacological profile and preventing the development of possible adverse reactions.

#### **Properties**

"Hyaludent" (with chlorhexidine) contains an antiseptic agent of chlorhexidine. Together with hyaluronic acid chlorhexidine has the most effective antimicrobial action. The mechanism of action is that hyaluronic acid binds a large amount of chlorhexidine and transports it to the tissues, followed by prolonged release of the active substance. At high concentrations of chlorhexidine cytoplasmic contents of the bacterial cell is deposited, leading to the eventual death of the bacteria.

#### **Indications:**

- antiseptic treatment of periodontal pockets after local anti-inflammatory therapy or curettage for more effective tissue repair;
- preventive treatment of postoperative field for effective repair of tissues;
- remedy for better blood microcirculation and metabolism in periodontal tissues;
- therapeutic and prophylactic remedy for infection and inflammatory diseases of periodontal and oral mucosa tissues.

#### **Composition**

Na hyaluronate  
Chlorhexidine  
Trilon B  
Distilled water  
Chlorobenzyl alcohol

#### **Recommended use**

1. Open the bottle with the solution "Hyaludent", put the needle on the syringe and proceed with the aspiration. Release the air from the syringe to prevent embolism. Slightly bend the needle-cannula to the required angle, in order to make the introduction to the periodontal pocket more comfortable.

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Isolate the treatment area from saliva. Insert the needle-cannula into the pocket to the desired depth, considering that the injected solution is fed into the pocket at a predetermined pressure. Start treatment of periodontal pocket. For more effective action of the solution processing must not be too fast. After the end of treatment follow with further manipulations.

2. Open the bottle with the solution "Hyaludent" and impregnate prepared turunda with it. Gently squeeze out and enter it into the treated periodontal pocket. For more effective action of the solution the processing must not be too fast. After the end of treatment extract turunda and proceed for further manipulation.

Use the tampon impregnated with solution "Hyaludent" for antiseptic and preventive applications in case of infectious and inflammatory periodontal and oral mucosa diseases, as well as for the treatment of postoperative field by one of the traditional methods.

### **Package contents and storage**

The product is packed in 25 ml bottles.

Material should be stored in a cool dry place

Recommended temperature of storage is +4 to +20°C.

Shelf life is 2 years.



### HYALUDENT GEL

#### Prophylaxis gel for complex treatment and prevention of periodontal diseases

##### Biological properties of hyaluronic acid

Among biologically active substances of natural origin special place belongs to hyaluronic acid. The outstanding properties of hyaluronic acid among other substances are based on its chemical structure. Hyaluronic acid has a large water holding capacity - one molecule of hyaluronic acid binds 200-300 water molecules. Together with other proteoglycans hyaluronic acid is a member of the extracellular matrix.

Hyaluronic acid (HA) is present practically in all human organs, so it has a variety of curing features based on stimulation of reparative processes in a body and absence of antigenic properties. By stabilizing the intercellular substance it protects periodontal tissues from intervention of bacteria, viruses, toxins. Protective effect of HA is in fact that it temporarily builds into the surrounding cells of periodontium of matrix from glycosamine glycanes and proteins, thereby hindering the access of toxic substances to the cells.

Due to its physical and chemical properties such as high viscosity, specific ability to bind water and proteins and to form proteoglycan aggregates, hyaluronic acid contributes to the manifestation of numerous functions of connective tissue. It is very important in regeneration of periodontal tissues and oral mucosa.

##### Indications:

- therapeutic and prophylactic remedy for infection and inflammatory diseases of periodontal tissues and oral mucosa;
- remedy for improving microcirculation and metabolism in periodontal tissues;
- elimination of inflammation of oral mucosa, elimination of pressure sore when using dental prostheses

##### Composition

Na hyaluronate  
Trilon B  
Klucel

Distilled water  
Chlorobenzyl alcohol

##### Recommended use

Remove the cap of syringe and put in a cannula for application. Isolate working area from saliva. By slow extrusion apply a gel to the treated surface. Apply such amount of gel that it would cover the surface with the excess. Gel is highly fluid, so it can fill the whole periodontal pocket or other area. Leave the gel on the treated surface under the periodontal dressing.

**Attention.** Do not use the instruments that can injure the surrounding tissues.

##### Package contents and storage

Material is packed in 2 plastic syringes of 2,5 ml each. 10 disposable application cannulas enclosed. Material should be stored in a cool dry place.

Recommended temperature of storage is +4 to +20°C.

Shelf life is 2 years.

### *GUTTASEALER*

#### **Zinc oxide eugenol-based radiopaque paste for root canal filling for possible use with gutta-percha points**

#### **Composition**

##### **Powder:**

Dexamethasone  
Hydrocortisone  
Iodide thymol  
Calcium hydroxide  
Barium sulphate  
Magnesium stearate  
Zinc oxide  
Zirconia

##### **Liquid:**

Eugenol  
Peppermint oil

#### **Indications and Properties**

"Guttasealer" - highly plastic radiopaque material for filling root canals of all groups of teeth with gutta percha. When fully cured the material is practically not resolved. Remains plastic over time and gets harden after 48-72 h. During this period, it has antiseptic and anti-inflammatory effect due to the presence of iodide thymol, calcium hydroxide, dexamethasone and hydrocortisone. Ensures a long working time what allows to enter the desired number of points, and if necessary to remove the main post, to carry out the correction of its length and re-filling the root canal. After curing the sealer points are firmly fixed in the tooth, but if necessary the contents of the root canal can be evacuated. Points are softened by hot instrument and evacuated, paste is extracted using endodontic instruments.

Existing in gutta percha points zinc oxide (from 59% to 75% depending on the manufacturer) is chemically combined with eugenol containing in paste. Polymer resin binds and wraps gutta-percha core, and plasticizer makes the whole system plasticity and makes the operation more convenient. At the same time, if necessary, a root filler can be removed from the root canal.

Application of paste "Guttasealer" in conjunction with gutta-percha points provides adhesion of the points to the root canal walls, binding of them with each other, that meets the requirements for the root canal fillers.

#### **Recommended use**

Preliminary mechanical treatment of the root canal is carried out by the generally accepted rules with providing it a conical design. When it is planned to use a method of single gutta percha point, it is necessary to chose it so when introduced into a root canal it was slightly "jammed" in the apical area radiographically 1mm to the apex. Root canal is dried with paper points. Mix the paste on a paper mixing pad or a glass plate. Powder and liquid are thoroughly mixed to obtain a soft paste. In the root canal only one portion of the filling material is entered using rotary paste filler (such as Lentulo) or using hand endodontic instrument. The material is distributed along the walls by circular clockwise motions. The point wetted by the filling material is inserted into the root canal, then after radiological control excess gutta percha is cut off by heated spatula and then it is condensed by hot plugger in the root canal.

#### **Package and storage**

The package of the material is 15 g of powder and 8 ml of liquid.

Material should be stored in a cool dry place.

Recommended temperature of storage is +10 to +25°C.

Shelf life is 3 years.

### GUTTASEALER PLUS

**Polymer two-component radiopaque material based on modified epoxy resin and amino complex catalyst for root canal filling with gutta-percha studs**

#### Indications

Filling root canals of all groups of teeth with gutta-percha points (lateral condensation method) and metal studs.

#### Composition and properties

Paste A – zirconium oxide, urotropine, butanediol, calcium tungstate.

Paste B – polymer modified resin, barium sulfate, silicone.

"Guttasiler Plus" - two component (paste/paste) slowly hardened material based on modified epoxy resin and amino complex catalyst. It has good adhesion to the tooth tissues, gutta-percha and the metal posts that maximizes the obturation of macro- and micro-canals. Radiopaque filler gives you the opportunity to apply the material in narrow&curved root canals. Availability of new generation catalyst introduced in the material makes the material more safe (in contrast to the traditional materials of earlier generations). Time of total cure in the root canal is 24-48 hours, that allows to make retreatment, if necessary.

#### Recommended use

Preliminary mechanical treatment of the root canal is carried out by the generally accepted rules with providing it a conical design. It is necessary to chose the gutta-percha point so when introduced into a root canal it was slightly "jammed" in the apical area radiographically 1-2 mm to the apex. Root canal is dried with paper points. For material preparation a necessary quantity of paste A is extruded on a mixing pad or on a glass plate. The same amount of paste B is extruded next to.

Two components are mixed until a mix has necessary consistence. Using a reamer or paste filler on low speed of motion in apical part of the root canal small amount of the material is introduced. By circular motions material is distributed along the walls of the canal. Wetted by filling material main point is inserted in the root canal until it stops. Then between the wall and the point (which is moved laterally) the spreader is inserted to the maximum depth not deeper than working length of the main instrument. Spreader is evacuated and to the opened space gutta-percha point of smaller size wetted by filling material is inserted. This procedure is repeated several times until it is possible to insert a spreader into the root canal.

Obturation is considered complete if a spreader can not be inserted into the root canal. Outstanding parts of the points are cut off with heated instrument to the level of the root canal opening. The last stage of the procedure is vertical condensation of gutta-percha by heated big plugger or burnisher to the opening of the root canal.

#### Package and storage

The package of the material is two tubes of paste A and paste B by 8 g each.

Material should be stored in a cool dry place.

Recommended temperature of storage is +4 to +24°C.

Shelf life is 2 years.

### ZOE PASTE

#### For root canal filling

#### Indications

Filling the root canals of all groups of teeth.

#### Composition

##### **Powder:**

Zinc oxide  
Paraform  
Dexamethasone  
Magnesium stearate  
Barium sulphate

##### **Liquid:**

Eugenol

Material belongs to plastic hardening pastes. Hardening of the paste in the root canal occurs within 48-72 hours, that make possible the retreatment, if necessary. Main content of the powder is zinc oxide, barium sulfate is used as a radiopaque filler. The powder contains corticoids possessing property to significantly reduce the number and strength of painful apical reactions. Antiseptic and corticoids substance are soluble in organic liquids as gradually, as the paste hardens, thereby it makes a therapeutic effect for a limited time.

Antiseptic action of a paste due to the presence of paraformaldehyde, lasts for a few hours after filling, which is necessary for sterilization of organic residues which may be in the root canal after removal of the pulp. This action of the paste will weaken as soon as it hardens until it stops.

#### Recommended use

The paste is prepared on a mixing pad or a glass plate. Powder and liquid are thoroughly mixed to obtain a soft paste. Ready paste is introduced to the root canal using reamer or rotary paste filler (such as Lentulo) on small speed clockwise motions. The excess of the material is thoroughly removed especially when the following restoration with composite materials is planned.

The prepared paste slightly dries in a natural way after 6-10 hours after mixing, but this can be easily solved by adding little amount of liquid.

#### Package and storage

The package of the material is 25 g of powder and 10 ml of liquid.

Material should be stored in a cool dry place.

Shelf life is 3 years.

### ZOE PASTE

(with no formaldehyde)

For root canal filling

#### Indications

Filling the root canals of all groups of teeth (in combination with gutta-percha points).

#### Composition and properties

##### **Powder:**

Dexamethasone  
Calcium hydroxide  
Tricalcium phosphate  
Barium sulphate  
Zinc oxide  
Magnesium stearate

##### **Liquid:**

Eugenol

**Benefits:** The proposed material contains no formaldehyde, as a destructive effect on tissues and cytotoxicity of formaldehyde-based materials are very high and it has negate sustained antiseptic effect, due to the release of formaldehyde. For imparting antiseptic properties to the material calcium hydroxide is introduced in the powder which has certain antiseptic properties.

Material belongs to plastic hardening pastes. Hardening of the paste in the root canal occurs within 48-72 hours, that make possible the retreatment, if necessary. Main content of the powder is zinc oxide, barium sulfate is used as a radiopaque filler.

There are calcium-containing components in the powder. Calcium hydroxide has antiseptic effect, translating acidity in alkaline direction. Calcium-containing components reduce overall toxicity of pastes.

The powder contains dexamethasone (corticoid) possessing property to significantly reduce the tissue trophism, as well as the number and strength of painful apical reactions. The composition of the liquid introduced propolis product of natural origin, reinforcing antiseptic effect of a paste.

Antiseptic action of a paste lasts for a few hours after filling, which is necessary for sterilization of organic residues which may be in the root canal after removal of the pulp. This antiseptic action of the paste will weaken as soon as it hardens until it stops.

Antiseptic and corticoids substance are soluble in organic liquids as gradually, as the paste hardens, thereby it makes a therapeutic effect for a limited time.

#### Recommended use

The paste is prepared on a mixing pad or a glass plate. Powder and liquid are thoroughly mixed to obtain a soft paste (consistence of a sour cream). Ready paste is introduced to the root canal using reamer or rotary paste filler (such as Lentulo) on small speed clockwise motions. The excess of the material is thoroughly removed especially when the following restoration with composite materials is planned.

The prepared paste slightly dries in a natural way after 6-10 hours after mixing, but this can be easily solved by adding little amount of liquid. When it is planned to use a method of single gutta percha point, it is necessary to chose it so when introduced into a root canal it was slightly "jammed" in

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the apical area radiographically 1-2 mm to the apex. Root canal is dried with paper points and the first portion of filling material is introduced using rotary paste filler or reamer. The material is distributed along the walls by circular clockwise motions. The point wetted by the filling material is inserted into the root canal. After radiological control excess gutta percha is cut off by heated spatula to the level of the root canal opening. The last stage of the procedure is vertical condensation of gutta-percha by heated big plugger or burnisher to the opening of the root canal.

### **Package and storage**

The package of the material is 25 g of powder and 10 ml of liquid.

Material should be stored in a cool dry place.

Shelf life is 3 years.

### RESORCINOL-FORMALDEHYDE PASTE

#### For root canal filling

#### Indications

Filling the root canals with incomplete pulp extirpation in permanent and in primary teeth.

#### Composition and properties

##### **Powder:**

Barium sulphate  
Zinc oxide

##### **Liquid:**

Formaldehyde

##### **Catalyst:**

Resorcinol  
Hydrochloric acid  
Excipients

After mixing both liquids and a powder the resulted radiopaque paste is hardened in approximately 24 hours.

During polymerization paste allocates a certain amount of formaldehyde gas which penetrates into the dentinal tubules, which turns located their albumins into insoluble and aseptic mixtures.

Thus, the application of paste gives you the opportunity to carry out three actions in one procedure:

- 1 - quick antiseptic treatment of root canal;
- 2 - introduction of long-acting antiseptic substance;
- 3 - reliable sealing of root canals with incomplete extirpation of the pulp.

As phenolics, this drug should not be used to seal the front teeth because of the coloring effect of the paste.

#### Recommended use

Open the tooth cavity with one of the usual methods; completely remove the remains of the pulp. Carry out mechanical and pharmacological treatment of root canals; dry them thoroughly.

On a glass plate 1-2 drops of fluid is applied, then mixed with 1-2 drops of the catalyst and then filled with the powder to obtain the required paste consistency. Use the resulting mixture to fill the root canals.

#### Package and storage

The material is packed in plastic container.

Powder 25 g, liquid 10 ml, catalyst 10 ml.

Material should be stored in a cool dry place.

Shelf life is 3 years.

### CAMPHORPHEN-A

#### Root canal filling paste (ready-made form)

##### Indications

Filling the root canals of all groups of teeth with incomplete pulp extirpation.

##### Composition

P-chlorophenol  
Barium sulphate  
Zinc oxide  
Zinc sulphate  
Camphor

##### Properties

"Camphorphen-A" refers to the plastic hardening pastes. The composition of the material consists two strong antiseptic, such as p-chlorophenol and camphor, antiseptic effect of which lasts for a long time after filling.

Radiopaque filler is based on barium sulphate and zinc oxide with the addition of zinc sulfate.

Tooth moisture plays a double role: on the one hand, it contributes to hardening, on the other hand - its surplus with the introduction of paste in the root canal is not desirable. So the pulp chamber and root canals should be thoroughly dried before introducing a root canal filling paste. After filling the root canal the paste completely fills it, increasing in volume due to the formation of hydrates, which additionally gives a very tight obturation.

##### Recommended use

After opening the pulp cavity the mechanical and pharmacological treatment of the root canal is done.

The paste is introduced into the prepared root canal in two or three portions by rotary paste filler or manual endodontic instrument, such as reamer, clockwise.

To note:

"Camphorphen-A" tends to harden on the surface when the jar left open for a long time. It is recommended to close the jar after each portions of a paste taking; at work use only dry instruments; in the case of hardening it can be softened by adding a preparation of triacetin (glycerol derivative). To speed up the curing process before the introduction of the paste into the root canal, you can add a drop of distilled water.

##### Package and storage

The material is available in glass jars containing by 20 g of soft, ready to use paste.

Material should be stored in a cool dry place.

Shelf life is 2 years.



### **CAMPHORPHEN-B**

#### **root canal filling paste (ready-made form)**

##### **Indications**

Filling the root canals of all groups of teeth with incomplete pulp extirpation.

##### **Composition**

P-chlorophenol  
Barium sulphate  
Camphor  
Zinc oxide  
Thymol  
Menthol  
Zinc sulphate

##### **Properties**

"Camphorphen-B" refers to the plastic hardening pastes. The composition of the material except classic components of camphorphenol paste - two strong antiseptics of p-chlorophenol and camphor, includes thymol and menthol, antiseptic effect of which lasts for a long time after filling.

Radiopaque filler is based on barium sulphate and zinc oxide with the addition of zinc sulfate.

Tooth moisture plays a double role: on the one hand, it contributes to hardening, on the other hand - its surplus with the introduction of paste in the root canal is not desirable. So the pulp chamber and root canals should be thoroughly dried before introducing a root canal filling paste. After filling the root canal the paste completely fills it, increasing in volume due to the formation of hydrates, which additionally gives a very tight obturation.

##### **Recommended use**

After opening the pulp cavity the mechanical and pharmacological treatment of the root canal is done.

The paste is introduced into the prepared root canal in two or three portions by rotary paste filler or manual endodontic instrument, such as reamer, clockwise.

To note:

"Camforfen-B" tends to harden on the surface when the jar left open for a long time. It is recommended to close the jar after each portions of a paste taking; at work use only dry instruments; in the case of hardening it can be softened by adding a preparation of triacetin (glycerol derivative). To speed up the curing process before the introduction of the paste into the root canal, you can add a drop of distilled water.

##### **Package and storage**

The material is available in glass jars containing by 20 g of soft, ready to use paste.

Material should be stored in a cool dry place.

Shelf life is 2 years.

### CANAL MTA

#### Material for closing the defects of root canals

##### Indications:

- retrograde filling of the apical part of the tooth;
- elimination of root perforations;
- elimination of perforations of the bottom of the cavity;
- apexification;
- elimination of internal and external root resorption;
- sealing of the apical part of the root canal;
- treatment and isolational covering the pulp

##### Composition and basic properties

Material "Canal-MTA" characterized by a high sealing ability, which practically does not change in presence of blood. The material has a high value of  $pH \approx 12$ , whereby has a pronounced bactericidal effect. "Canal-MTA" has the mechanical properties similar to natural dentin and cementum of the root. Contains no monomers. Material stimulates osteogenesis and cementogenesis, has high strength and durability.

"Canal-MTA" consists of a mixture of hydrophilic particles: mainly - tricalcium silicate and calcium-containing compounds of iron and aluminum. Material hardens upon contact with water, increasing the compressive strength over time. The time between the start of mixing and the start of the hardening is about 12 min.

##### Recommended use

Before use in order to ensure uniform density of a powder shake the jar. Fill the measuring spoon with powder with no compaction, align the level by a spatula, pour the powder on a glass plate (mixing pad). Close the jar with the powder immediately. Add some liquid to powder taking into account the ratio of one spoon = one drop of liquid. Thoroughly mix the powder with water to obtain a dense homogeneous paste.

If the material is not used immediately after mixing, the resulting paste should be covered with a damp napkin.

##### Perforation of the root canal and furcations:

- Isolate the place of treatment;
- treat the perforation area with a solution of sodium hypochlorite;
- prepare and fill the canal with gutta-percha and appropriate endodontic sealer below the level of perforation;
- introduce "Canal-MTA" in the area of the defect and seal it with a suitable instrument or sterile cotton balls (to condense the material it is possible to use large ultrasonic nozzle without water irrigation on medium power);
- fill in the rest of the root canal with gutta-percha and the appropriate endodontic cement.

##### Perforation of the root canal due to internal resorption.

First visit:

- administer the local anesthesia and insulate the place of treatment;
- prepare the access to the root canal and to the place of resorption of hard tissues;
- remove the damaged tissue and pulp;
- introduce the calcium hydroxide paste to the root canal.

Second visit (a week later):

- remove the calcium hydroxide paste from root canal by washing with sodium hypochlorite solution;
- obturate the apical part of the root canal with gutta-percha and appropriate endodontic cement;
- introduce "Canal-MTA" in the area of the defect and seal it with a suitable instrument or sterile cotton

## ENDODONTICS. ROOT CANAL FILLING MATERIALS

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balls (to condense the material it is possible to use large ultrasonic nozzle without water irrigation on medium power);

- do the control X-ray shot immediately after the procedure.

### **Surgical treatment of the root canal perforation when it is not impossible to treat it coronally:**

- open muco-periosteal flap to ensure operative access to the site of perforation of the root;
- introduce "Canal-MTA" in the prepared area of the perforation using a suitable instrument;
- remove excess material;
- place the flap to its original location and suture.
- make the X-ray immediately after the procedure, make the control X-ray three months later.

**Note:** when doing a surgery before returning a flap to the place the blood around the bone and periosteum should cover MTA cement. Contact with blood and moisture accelerates the reaction of setting the cement.

### **Periapical surgery when it is impossible to treat coronally and lack of the access to the root canal through the crown of the tooth:**

- open the muco-periosteal flap, remove the done (if necessary) and open the apical part of the root;
- make apicectomy from 2 to 3 mm;
- prepare the cavity class I at the apex of the root canal;
- introduce "Canal-MTA" in the prepared area of the perforation using a suitable instrument;
- remove excess material;
- place the flap to its original location and suture.
- make the X-ray immediately after the procedure, make the control X-ray three months later.

**Note:** when doing a surgery before returning a flap to the place the blood around the bone and periosteum should cover MTA cement. Contact with blood and moisture accelerates the reaction of setting the cement.

### **Apexification**

First visit:

- administer the local anesthesia and insulate the place of treatment;
- prepare the root canal;
- wash the canal with sodium hypochlorite solution;
- introduce the calcium hydroxide paste to the root canal.

Second visit (a week later):

- remove the calcium hydroxide paste from root canal, thoroughly wash with sodium hypochlorite solution;
- dry the root canal with paper points;
- introduce "Canal-MTA" in the apical area and condense it with a suitable instrument or sterile cotton balls (to condense the material it is possible to use large ultrasonic nozzle without water irrigation on medium power);
- do the control X-ray shot in order to check the quality of obturation.
- cover the opening of the canal with sterile wet cotton ball and seal the tooth cavity with temporary restorative material for at least 24 hours.

Third visit:

- remove the temporary restorative material and a cotton ball;
- fill in the rest of the root canal by gutta-percha and the corresponding endodontic cement;
- carry out the restoration of the tooth crown.

### **Direct pulp capping:**

- administer the local anesthesia and isolate the place of treatment;

## ENDODONTICS. ROOT CANAL FILLING MATERIALS

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- remove the tissues damaged by caries;
- clean the tooth cavity with a sodium hypochlorite solution;
- cover the exposed portion by "Canal MTA";
- cover by the base cement of " Canal MTA ";
- complete restoration;
- check the pulp vitality during the next visits.

### **Package and storage**

The material is packed in micro-tubes by 0,3 g or 0,5 g plus bottle-dropper with distilled water (2,5 ml). Material is sterile.

Material should be stored in a cool dry place with t of +4°C to +24°C.

Shelf life is 2 years.

Choice of antiseptic liquids for root canal treatment lays on a dentist. Thus it is desirable to take into account the composition and degree of concentration of the following preparations, since these antiseptic liquids are designed for different types of infection and in each case the selectively effect only one of the components of the formulation is possible.

№1 – «ANTISEPTIN» Liquid for antiseptic treatment of root canals.

№2 - "CAMFORPHEN" dental material for antiseptic treatment of root canals.

№3 - "GUAIAPHEN" dental material for antiseptic treatment of root canals.

№4 - "GUAIAPHEN FORTE" dental material for antiseptic treatment of carious cavities.

### ANTISEPTIN

#### Solution for antiseptic treatment of root canals

##### Indications

Antiseptic treatment of root canals and cavities.

##### Composition

Antiseptic solution

Chlorhexidine

Eugenol

Distilled water

##### Properties

Consisting of a strong-acting bactericidal and corticosteroid substances, solution has a set of properties that are useful for antiseptic treatment of root canals and carious cavities.

Causing practically no irritation the drug gets you get closer to the pulp or the apex without the risk of negative reaction. The liquid easily penetrates curved and narrowed additional canals and disinfects them. Due to the balanced composition of the material inflammation processes becomes weaker.

Unlike most antiseptics used for root canals, it is possible to combine the liquid with antibiotics, that allows to carry out simultaneous treatment by antiseptics and antibiotics.

##### Recommended use

1. *Treatment in one visit.* Remove all the root pulp. Widen the root canal with the endodontic instruments. Wash the root canal with antiseptic solution or distilled water and then thoroughly dry. Introduce to the root canal one drop of liquid for 1-2 min. Then remove remaining fluid with cotton turunda and fill the root canal.

2. *Delayed treatment.* After removal of the infected pulp widen the root canal chemically and with endodontic instrument. Then thoroughly dry the canal, put into it the cotton turunda soaked in liquid, and leave for 1-3 days, hermetically close the cavity with temporary dressing. During the next visit it is possible to make permanent root canal filling.

##### Package and storage

The liquid is available in glass bottle of 13 ml.

Material should be stored in a dry and dark place.

Shelf life is 3 years.

### CAMPHORPHEN

#### Dental material for antiseptic treatment of root canals

##### Indications

Antiseptic treatment of root canals and carious cavities.

##### Composition

P-chlorophenol  
DL-Camphor  
Dexamethasone

##### Properties

In the composition of the material "Camphorphen" there are strongly acting bactericidal agents and corticosteroids. P-chlorophenol is an active topical antiseptic with inherent bactericidal and fungicidal effect. DL-camphor has antiseptic and sedative effect. Thanks to dexamethasone - a corticosteroid substance that is much more active than cortisone - the probability of inflammatory and allergic reactions is substantially reduced.

The preparation does not irritate periapical tissues, lets you to get closer to the pulp or the apex without the risk of negative reactions. "Camphorphen" is volatile and has a low coefficient of surface tension, while some of its components in the vapor state are of high pressure, which promotes easy penetration even to the narrowed canals and dentinal tubules reinforcing bactericidal and fungicidal effect.

The preparation does not lose its properties when in contact with blood, serum and proteins. Unlike most antiseptics used for root canals, the liquid can be combined with antibiotics, that makes possible to carry out simultaneous processing of antiseptics and antibiotics.

Liquid "Camphorphen" has a set of qualities that are particularly useful for antiseptic treatment of root canals and cavities, it is widely used nowadays in endodontic procedures.

##### Recommended use

1. *Treatment in one visit.* After pulp extirpation widen the root canal with the endodontic instruments. Wash the root canal with distilled water and then thoroughly dry. Introduce to the root canal one drop of the liquid for 1-2 min. Then remove remaining fluid with cotton turunda and fill the root canal.

2. *Delayed treatment.* After removal of the infected pulp widen the root canal chemically and with endodontic instrument. Then thoroughly dry the canal, put into it the cotton turunda soaked in liquid, and leave for 1-3 days, hermetically close the cavity with temporary dressing. During the next visit you need to check the sterility of the canal. If necessary you should repeat with the treatment and fill the root canal only in the next visit.

After the use of devitalizing arsenic paste before the use of "Camphorphen" it is necessary to neutralize the residues of arsenic anhydrid by aqueous iodine solution for 30 seconds.

##### Package and storage

The liquid is available in glass bottle of 13 ml.  
Material should be stored in a dry and dark place.  
Shelf life is 3 years.

### GUAIAPHEN

#### Dental material for antiseptic treatment of root canals

##### Indications

- antiseptic treatment of root canals after removing its content;
- mummifying the pulp after tooth devitalization
- as a liquid for hardened paste based on zinc oxide for filling the roof canals

##### Composition

Phenol –35 %  
Guaiacol – 30 %  
Formaldehyde –15 %  
Dexamethasone – 0,125 %  
Glycerol – to 100 %

##### Properties

"Guaiaphen" is the oily liquid consisting of a mixture of strongly active bactericidal and corticosteroid agents, it has a strong antiseptic action.

Guaiacol (phenol derivatives) - one of the main components of creosote - is a very active topical antiseptic with inherent bactericidal and fungicidal effect, which has a local analgesic effect.

Phenol has antiseptic and mummified effect.

Formaldehyde (aqueous solution) has antiseptic, bactericidal, fungicidal and virusocidal action.

Due to dexamethasone (a corticosteroid), which is several times more active than cortisone, the probability of manifestation of inflammatory and allergic reactions is drastically reduced.

##### Recommended use

1. *Treatment in one visit.* After pulp extirpation widen the root canal with the endodontic instruments. Wash the root canal with distilled water and then thoroughly dry. Introduce to the root canal one drop of the "Guaiaphen" for 1-2 min. Then remove remaining fluid with cotton turunda and fill the root canal.

2. *Delayed treatment.* After removal of the infected pulp widen the root canal chemically and with endodontic instrument. Then thoroughly dry the canal, put into it the cotton turunda soaked in liquid, and leave for 1-3 days, hermetically close the cavity with temporary dressing. During the next visit you need to check the sterility of the canal. If necessary you should repeat with the treatment and fill the root canal only in the next visit.

After the use of devitalizing arsenic paste before the use of "Guaiaphen" it is necessary to neutralize the residues of arsenic anhydrid by aqueous iodine solution for 30 seconds.

##### Package and storage

The liquid is available in glass bottle of 13 ml.  
Material should be stored in a dry and dark place.  
Shelf life is 3 years.

### **GUAIAPHEN FORTE**

#### **Dental material for antiseptic treatment of carious cavities**

##### **Indications**

- antiseptic treatment before filling carious cavities;
- treatment of cavities before tooth devitalization;
- antiseptic treatment of root canals after amputation and extirpation of pulp;
- as a liquid for hardened paste based on zinc oxide for filling the roof canals.

##### **Composition**

Phenol –45 %  
Guaiacol – 7 %  
Formaldehyde –1 %  
Dexamethasone – 0,125 %  
Glycerol – to 100 %

##### **Properties**

"Guaiaphen Forte" is the oily liquid consisting of a mixture of strongly active bactericidal and corticosteroid agents, it has a strong antiseptic action, especially useful for the treatment of root canals and carious cavities. It is widely used nowadays in endodontic procedures.

Guaiacol (phenol derivatives) - one of the main components of creosote - is a very active topical antiseptic with inherent bactericidal and fungicidal effect, which has a local analgesic effect. Phenol has antiseptic and mummified effect.

Due to dexamethasone (a corticosteroid), which is several times more active than cortisone, the probability of manifestation of inflammatory and allergic reactions is drastically reduced.

##### **Recommended use**

1. *Treatment in one visit.* After pulp extirpation widen the root canal with the endodontic instruments. Wash the root canal with distilled water and then thoroughly dry by paper points or turundas. Introduce to the root canal one drop of the liquid for 1-2 min. Then remove remaining fluid with paper or cotton turunda and fill the root canal.

2. *Delayed treatment.* After removal of the infected pulp widen the root canal chemically and with endodontic instrument. Then thoroughly dry the canal, put into it the cotton turunda soaked in liquid, and leave for 1-3 days, hermetically close the cavity with temporary dressing. During the next visit it is necessary to check the sterility of the canal. If necessary you should repeat with the treatment and fill the root canal only full elimination of the inflammation.

##### **Package and storage**

The liquid is available in glass bottle of 13 ml.  
Material should be stored in a dry and dark place.  
Shelf life is 3 years.



### HYPOCHLORAN-3, HYPOCHLORAN-5

#### Solution of 3,25% and 5,25% sodium hypochlorite for root canal treatment

#### Indications

Treatment of the root canals preparing them to the obturation.

#### The mechanism of action and properties

Treatment of the root canal is one of the most important aspects of endodontic treatment, so you need to know in details the process of canal irrigation and the mechanism of action of irrigation solutions.

One of the most frequently used in practice irrigation solution for the root canal treatment is sodium hypochlorite (NaOCl).

A contact of sodium hypochlorite with proteins tissue produces the nitrogen, formaldehyde and acetaldehyde in a short period of time. Peptide bonds are broken, the proteins are dissolved. During this process, hydrogen in an amino group (-HN-) is replaced by chlorine (-NCl-), creating chloramine, which plays an important role in the antimicrobial activity. As a result of the action of sodium hypochlorite the necrotic tissues and pus dissolve, allowing the antimicrobial agent to disinfect the root canal more effective.

In practice a number of solutions are used with a maximum concentration of 5.25% or less. However, the efficacy of the solution depends not only on the concentration of the formulation but also on the temperature of sodium hypochlorite in use. Thus, at room temperature (21 °C) 2.5% solution becomes less effective. However, upon heating the bactericidal effect of sodium hypochlorite is enhanced. It must be remembered that when heated above 37 °C the stability of the solution is weakened.

Since the activity of weak solutions decreases rapidly, irrigation should be done frequently and in large portions. The use of protein-regulatory antiseptics (phenol, etc.) modifies the pulp tissue to such an extent that it is necessary to use higher concentrations of sodium hypochlorite for irrigation.

Taking into account the above factors and practical developments it was determined the concentration of the solution - 3.25% NaOCl, which can dissolve live, necrotic and chemically fixed tissues.

The bactericidal effect of the proposed solution is caused by its alkaline properties (pH 11.5-12.0), as well as its ability to release chlorine gas (when used in combination with other chemicals). Combination of sodium hypochlorite with EDTA-containing materials (liquid chemical widening the root canals, gel for canals widening) significantly enhances the bactericidal effect of a solution.

#### Recommended use of "Hypochloran-3"

Remove the central part of the aluminum protective cap from infusion bottle. Conduct aspirate solution directly into the syringe through the rubber plug using an ordinary needle, preferably of large diameter. Then in the filled syringe change a sharp needle to the endo one named "Endoneedle". Slightly bend the needle at the required angle. Insert the needle into the root canal, leaving 3-5 mm to the apex, since the injected solution flows into the canal with the pressure. Start processing the root canal. To avoid excessive pressure and to ensure more effective operation the processing should not be too rapid. Near the place to be treated put a saliva ejector, which will quickly remove effluent solution together with the

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decomposition products reducing unwanted contact of hypochlorite with the oral mucosa. For complete removal of all of the decay products from the root canal the amount of used liquid must be substantial (10 - 20 ml).

### **Recommended use of "Hypochloran-5"**

Open the bottle of sodium hypochlorite and soak a prepared turunda with the solution. Gently wring out and put it into the prepared root canal. Treatment should not be too rapid. Carefully process the root canal by forward and back movements of a turunda. Withdraw the turunda from the cavity and rinse the canal with water. Repeat such procedures 2-3 times, after which to degrease the canal, dry it and fill the filling material.

Recommendations. Batch alternation of 5% sodium hypochlorane solution and hydrogen peroxide in one root canal leads to a chemical reaction with release of free oxygen and copious foam, which provides an additional cleansing and antiseptic effect.

### **The package and storage conditions of "Hypochloran-3"**

The solution is packed in infusion bottles of 300 ml.

Keep the material in a glass container with tightly closed lid in a cool, dark place at t of +4°C to +15°C. Avoid prolonged exposure to direct sunlight.

Shelf life is 2 years.

Antiseptic activity of the solution is guaranteed only under the recommended conditions of storage.

### **The package and storage conditions of "Hypochloran-5"**

The solution is packed in infusion bottles of 25 ml or 150 ml.

Keep the material in a glass container with tightly closed lid in a cool place, protected from light at t of +4°C to +15°C. Avoid prolonged exposure to direct sunlight.

Shelf life is 2 years.

Antiseptic activity of the solution is guaranteed only under the recommended conditions of storage.

**ENDOSYRINGE**

**Endodontic syringe for antiseptic treatment of root canals**

**Indications**

Endodontic syringe is used for irrigation of root canals.

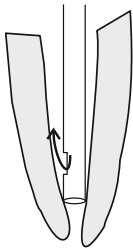


Figure 1.

"Endosyringe" is a set of a syringe with a special lock equipped with the special endodontic needle of 0.4 mm diameter (27 G) and 35-38 mm of length. Needles which comes in complete of "Endosyringe" have two or three output perforations - at the end of the needle and on the lateral side(s).

When the end of the needle reach the narrowed part of the root canal is lateral perforation allows the liquid to come out to the wider part of the root canal, thus avoiding excessive pressure in the periapical area (Figure 1).

When irrigating solution comes out to the wider part of the root canal, it is directed to the pulp chamber, while producing its antiseptic action.

**Recommended use**

Remove the central part of the aluminum protective cap of infusion bottle. Aspirate the solution directly into the syringe through the rubber plug using an ordinary needle, preferably of large diameter. Then in the filled syringe change a sharp needle to the endo one named "Endoneedle".

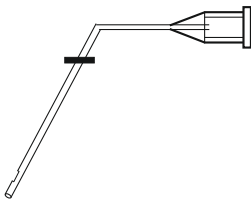


Figure 2.

Slightly bend the needle at the required angle (Figure 2). Insert the needle into the root canal, leaving 3-5 mm to the apex, since the injected solution flows into the canal with the pressure. Start processing the root canal. To avoid excessive pressure and to ensure more effective operation the processing should not be too rapid. Near the place to be treated put a saliva ejector, which will quickly remove effluent solution together with the decomposition products reducing unwanted contact of hypochlorite with the oral mucosa. For complete removal of all of the decay products from the root canal the amount of used liquid must be substantial (10 - 20 ml).

**Package contents and storage**

Package includes 10 syringes of luer-lock 3 ml of volume with needles "Endoneedle" sized 0,4 × 35-38 mm

Keep the material in dry place at t +4°C to +24°C.

Shelf life is 5 years.

Needle "Endoneedle" is available with lateral perforation, bilateral perforations and with no perforation, in diameter of 0,3 – 0,4 mm, length of 35 – 38 mm.

### ENDONEEDLE

#### Endodontic needles with lateral perforations for antiseptic treatment of root canals

##### Indications and properties

Used in professional dentistry for irrigation of root canals with antiseptic solutions (sodium hypochlorite) in the process of preparing them for filling and obturation.

"Endoneedle" – endodontic needle with diameter of 0.4 mm and length of 35-38mm. "Endoneedle" has a blunt tip of needle cut that makes it impossible to damage an apex mechanically.

Lateral perforation when irrigating the solution eliminates excessive pressure in the periapical region.

"Endoneedle" with lateral perforation has an opening on the side wall of a needle with diameter of 0,15 mm at a distance of 3 mm from the tip of the needle.

##### Recommended use

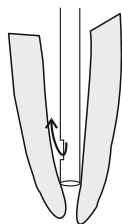


Figure 1.

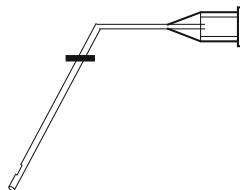


Figure 2.

Remove the central part of the aluminum protective cap of infusion bottle. Aspirate the solution directly into the syringe through the rubber plug using an ordinary needle, preferably of large diameter. Then in the filled syringe change a sharp needle to the endo one named "Endoneedle".

Slightly bend the needle at the required angle (Figure 2). Insert the needle into the root canal, leaving 3-5 mm to the apex, since the injected solution flows into the canal with the pressure. Start processing the root canal. To avoid excessive pressure and to ensure more effective operation the processing should not be too rapid. Near the place to be treated put a saliva ejector, which will quickly remove effluent solution together with the decomposition products reducing unwanted contact of hypochlorite with the oral mucosa. For complete removal of all of the decay products from the root canal the amount of used liquid must be substantial (10 - 20 ml).

##### Package contents and storage

Package includes 20 needles sized 0,4 × 35 mm.

Keep the material in dry place at t +4°C to +24°C.

Shelf life is 5 years.

### ENDONEEDLE

#### Endodontic needles with bilateral perforations

##### Indications

Endodontic needles are used for irrigation of root canals with irrigation solutions (sodium hypochlorite) in the process of preparing them for filling and obturation.

"Endoneedle" is an endodontic needle with optimal diameter of 0.4 mm (27G) and length of 35-38mm. "Endoneedle" with bilateral perforations has three openings: one on the tip of the needle and two lateral – one against the other with diameter of 0,15 mm at the distance of 3 mm from the tip of the needle.

When the end of the needle reach the narrowed part of the root canal is lateral perforation allows the liquid to come out to the wider part of the root canal, thus avoiding excessive pressure in the periapical area (Figure 1). When irrigating solution comes out to the wider part of the root canal, it is directed to the pulp chamber, while producing its antiseptic action.

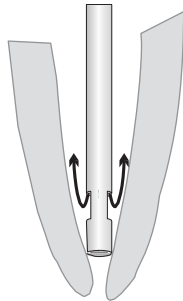


Figure 1.

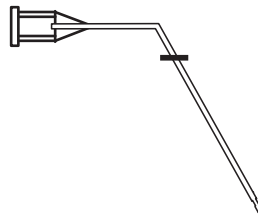


Figure 2.

##### Recommended use

Remove the central part of the aluminum protective cap of infusion bottle. Aspirate the solution directly into the syringe through the rubber plug using an ordinary needle, preferably of large diameter. Then in the filled syringe change a sharp needle to the endo one named "Endoneedle".

Slightly bend the needle at the required angle (Figure 2). Insert the needle into the root canal, leaving 3-5 mm to the apex, since the injected solution flows into the canal with the pressure. Start processing the root canal. To avoid excessive pressure and to ensure more effective operation the processing should not be too rapid. Near the place to be treated put a saliva ejector, which will quickly remove effluent solution together with the decomposition products reducing unwanted contact of hypochlorite with the oral mucosa. For complete removal of all of the decay products from the root canal the amount of used liquid must be substantial (10 - 20 ml).

##### Package contents and storage

Package includes 20 needles sized 0,4 × 35-38 mm.

Keep the material in dry place at t +4°C to +24°C.

Shelf life is 5 years.

### ENDONEEDLE

#### Endodontic needles with no perforations

##### Indications

Endodontic needles are used for irrigation of narrow and curved root canals with irrigation solutions (sodium hypochlorite). They are used for introduction of liquid and gel forms of E.D.T.A. (Edetal, Edetal-Endo) in the process of preparing them for filling and obturation.

"Endoneedle" is a special endodontic needle with diameter of 0,4 mm (27G) or 0,3 mm (29G) and length of 35-38mm. "Endoneedle" with no perforations is a needle with blunt atraumatic tip.

##### Recommended use

Put a needle "Endoneedle" on the syringe filled with acting substance – solution or gel (Edetal-Endo).

Slightly bend the needle at the required angle (Figure 2).

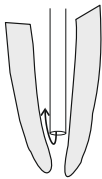


Figure 1.

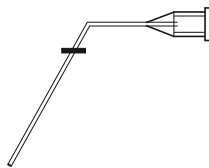


Figure 2.

**Important!** (especially for needle of diameter 0,3 mm) Insert the needle into the root canal, leaving 3-5 mm to the apex in order to avoid going the needle over the apex. Start processing the root canal. To avoid excessive pressure and to ensure more effective operation the processing should not be too rapid.

##### Package contents and storage

Package includes 20 needles sized 0,4 or 0,3 mm and length of 35-38 mm.

Keep the material in dry place at  $t +4^{\circ}\text{C}$  to  $+24^{\circ}\text{C}$ .

Shelf life is 5 years.

**DEHYDROL**

**Liquid for dehydrating and degreasing of root canals**

**Composition**

Ethyl acetate  
Acetone  
Medical antiseptic solution 95%

The proposed material is intended for quick drying and degreasing of root canals and cavities before filling, as well as for the treatment of the teeth prepared for the placement of the artificial crown before fixation of prostheses.

Fluid does not prevent the polymerization of composite restorative materials.

Liquid is economic in use and helps in solving many problems. The preparation is not intended to remove fat from the gums.

**Recommended use**

Treat the cavity before filling the tooth with a cotton tampon dipped in the liquid. Wait a few seconds to complete evaporation of the liquid.

**Package contents and storage**

Packed in bottles of 13 ml or 25 ml of liquid.  
Close the bottle after each use.  
Keep the material in cool dry place.  
Shelf life is 3 years.

### EDETAL LIQUID

#### Liquid for chemical enlargement of root canals

##### Indications:

- chemical enlargement of root canals;
- disclosing the orifices of the root canals.

##### Composition

E.D.T.A. salt  
Trilon B  
Flavor  
Filler

##### Properties

For a successful enlargement of the root canals a chemical method is used, which consists in decalcification of root canal walls. Strong acids currently used for root canal enlargement constitute an inconvenience, since they are caustics and dangerous to handle.

The proposed material is a neutral solution, which when getting in contact with the mineral components of the tooth forms a chelate complex, providing little resistance to mechanical stress.

Nontoxic material is not caustic, harmless to periapical tissues, easy to use, allows the removal of residual pulp and dentin devitalised thereby, that the mechanical extension using endodontic instruments performed easily even in narrow root canals.

##### Recommended use

Using a pipette, introduce the solution into the root canal of the tooth using an endodontic needle. Endure for some time (1-2 min) and then start mechanical enlargement of root canal. After the procedure wash off with water.

##### Package contents and storage

The liquid is available in glass bottle of 13 ml.

Keep the material in dry warm place. In decreasing a temperature of storage, dissolved salts precipitates, but it is easily solved by reheating the liquid.

Shelf life is 3 years.



### EDETAL

#### Gel (with foaming effect) for chemical enlargement of root canals

##### Composition

E.D.T.A. salt  
Foaming agents  
Lubricating components  
Gelling agents

##### Indications

- to facilitate mechanical treatment of the root canals;
- in preparation of inaccessible root canals for sealing
- revealing the root canal orifices.

##### Properties

For a more successful mechanical enlargement of root canals special gels are used. Their mechanism of action is in decalcification of the canal walls and the lubrication of endodontic instrument. The material is a neutral gel that helps the mechanical treatment of the root canal by endodontic instruments and makes their work more effective. Connecting with the mineral components of the tooth, a gel forms complex chelated compounds providing little resistance to mechanical stress. The combined use of a gel with sodium hypochlorite solution provides the best cleaning effect. E.D.T.A. dissolves inorganic residues in the root canal, while NaOCl – organic ones. The formation of foam helps more easy cleaning of the dentin chips from the root canal.

The material is non-toxic, harmless to periapical tissues, easy to use, allows for removal of residual devitalised pulp and dentin, providing that the mechanical root canal enlargement using endodontic instruments performed easily even in the narrowest canals.

##### Recommended use

Isolate the treated tooth. Put on the needle on the syringe, introduce a gel by squeezing into the root canal and leave for 1 minute. Start mechanical treatment of the root canal with chosen endodontic files in conventional manner.

A gel should be used in the early stages and in the late stages of endodontic treatment in order to avoid possible canal wall perforation. In cases of wide and relatively straight canals, you can use the gel from the first numbers of files. In the case of the canal with a complex structure, proceed to the determination of the duration of work and the selection of the sample instrument. Prepared and marked instrument is to be bent, which facilitates passage. The instrument is then smeared with gel, inserted into the canal and used for mechanical treatment procedure.

Alternately, it is necessary to irrigate the root canal with sodium hypochlorite solution and produce machining channel file blurred with gel. During irrigation with sodium hypochlorite will produce foam, helps to wash out the content from the root canal, making it easier to clean. After the end of the mechanical treatment the root canal should be thoroughly washed. A gel is well soluble in water, but it must be ensured that there is no remaining gel in the root canal.

**Never leave a gel in the root canal until the next visit of the patient!**

In conclusion, it is necessary to thoroughly dry the root canal using the liquid for drying and degreasing the root canals, and then you can proceed to further manipulation.

##### Packing and storage

A gel is available in a syringe of 5 ml.

Keep in cool dry place. Avoid the direct sunlight and high temperature.

Shelf life is 3 years.

### EUGENAT

#### Liquid for root canal desobturation

##### Composition

Thymol  
Isoamyl acetate  
Tetrachlorethylene

##### Indications and properties

In cases of repeated endodontic treatment it is necessary to clean the root canal from the old filling material. To do this, use a special liquid to facilitate such manipulations. "Eugenat" is used for softening the pastes based on zinc oxide and eugenol.

##### Recommended use

###### Method for unsealing the root canals in one visit.

Proceed with the mechanical treatment of pulp chamber and the entrance to the root canals as widely as possible. Using a probe introduce one drop of "Eugenat" in a tooth cavity, and then into the root canals and leave it for 1 minute in order to soften a paste. Then begin processing with the endodontic instrument every time wetting its tip with "Eugenat".

After passing 1/2 of the root canal re-fill the canal with "Eugenat" liquid and leave for 1 minute with the aim of softening a paste in the deep part of the root canal. Then start treatment the canal with endodontic instruments every time wetting its tip with "Eugenat" as long as you reach the apex. After unsealing the root canal should be washed, degreased, and dried in order to prepare for subsequent filling.

###### Method for unsealing the root canals in two visits.

Proceed with the mechanical treatment of pulp chamber and the entrance to the root canals as widely as possible. Wet a cotton tampon with "Eugenat" and place it to the root canal, slightly compacted. Close the root canal with temporary filling until the next visit. After 1-3 days remove the temporary filling and proceed with mechanical unsealing the root canal from softened paste that in this time would be easy. After unsealing the root canal should be washed, degreased, and dried in order to prepare for subsequent filling.

##### Package contents and storage

Liquid is available in a glass bottle of 13 ml.  
Keep in cool dry place away from direct sunlight.  
Shelf life is 3 years.

### PHENOPLAST

#### Liquid for root canal desobturation

##### Composition

Phenylethyl alcohol  
Formamide

##### Indications and properties

In cases of repeated endodontic treatment it is necessary to clean the root canal from the old filling material. To do this use a special liquids to facilitate such manipulations. "Phenoplast" is used for softening the pastes based on phenol aldehyde resins.

##### Recommended use

###### Method for unsealing the root canals in one visit.

Proceed with the mechanical treatment of pulp chamber and the entrance to the root canals as widely as possible. Using a probe introduce one drop of "Phenoplast" in a tooth cavity, and then into the root canals and leave it for 1 minute in order to soften a resin. Then begin processing with the endodontic instrument every time wetting its tip with "Phenoplast". After passing the root canal re-fill the canal with "Phenoplast" liquid and leave for 1 minute with the aim of softening a resin in the deep part of the root canal.

Then start treatment the canal with endodontic instruments every time wetting its tip with "Phenoplast" as long as you reach the apex. After unsealing the root canal should be washed, degreased, and dried in order to prepare for subsequent filling.

###### Method for unsealing the root canals in two visits.

Proceed with the mechanical treatment of pulp chamber and the entrance to the root canals as widely as possible. Wet a cotton tampon with "Phenoplast" and place it to the root canal, slightly compacted. Close the root canal with temporary filling until the next visit. After 1-3 days remove the temporary filling and proceed with mechanical unsealing the root canal from softened paste that in this time would be easy.

After unsealing the root canal should be washed, degreased, and dried in order to prepare for subsequent filling.

##### Packing and storage

Liquid is available in a glass bottle of 13 ml.  
Keep in cool dry place away from direct sunlight.  
Shelf life is 3 years.

**GUTTAPLAST**

**Liquid for root canal desobturation**

**Composition**

Eucalyptus oil  
Citral

**Indications and properties**

Repeated endodontic treatment of root canals previously sealed with gutta-percha.

In cases of repeated endodontic treatment a special liquid for unsealing the root canals sealed with gutta-percha is used, which facilitates such manipulations.

**Recommended use**

**Method for unsealing the root canals in one visit.**

Proceed with the mechanical treatment of pulp chamber and the entrance to the root canals as widely as possible. Using a probe introduce two drops of "Guttaplast" in a tooth cavity, and then into the root canals and leave it for 1 minute in order to soften a gutta-percha.

Then start removing softened gutta-percha from the root canal with endodontic instrument as long as you reach the apex. From time to time add fresh solvent and wash the root canal with sodium hypochlorite.

**Method for unsealing the root canals in two visits.**

Proceed with the mechanical treatment of pulp chamber and the entrance to the root canals as widely as possible. Wet a cotton tampon with the liquid and place it to the root canal, slightly compacted. Close the root canal with temporary filling until the next visit. After 1-3 days remove the temporary filling and proceed with mechanical treatment to remove softened gutta-percha. It would not be difficult. After unsealing the root canal should be washed, degreased, and dried in order to prepare for subsequent filling.

**Attention!** Avoid falling into the esophagus.

**Package contents and storage**

Liquid is available in a glass bottle of 13 ml.

**Attention!** The liquid is flammable. Keep away from the heat or flame sources in room temperature away from direct sunlight.

Shelf life is 3 years.

### **NON ARSENIC**

#### **Dental material for devitalization of pulp**

##### **Indications:**

- pulp devitalization with no use of arsenic;
- an additional mean for devitalization with arsenic in repeated procedure

##### **Properties**

The preparation contains trioxymethylene - strong antiseptic which in high concentrations causes tissue necrosis. Used as part of devitalizing pastes for necrosis of a dental pulp, it has prolonged action. Devitalization occurs within 5 - 7 days. Does not have a toxic effect on periodontal tissues. Lidocaine with its local anesthetic action reduces the risk of a painful reaction.

##### **Composition**

Trioxymethylene  
Camphor  
Lidocaine  
P-chlorophenol  
Filler

##### **Recommended use**

Paste for pulp devitalization applied without pressure on the opened horn of pulp in the form of a ball with a diameter of 1-2 mm. A cavity is closed without pressure by soft temporary dressing. Time of action of the preparation is 5 - 7 days. As a result, pulp become of a fiber structure and very easy to remove.

In some cases it is very difficult to apply this technique, because it is not always possible to achieve direct contact with the pulp. In that case, devitalization must be carried out in two stages. Direct contact may be achieved only in a second step after the reduction of viability of the pulp.

##### **Package contents and storage**

Paste "Non arsenic" is available in a glass jar with 6,5 g of paste.  
Keep in cool place.  
Shelf life is 2 years.

### **IODEX** **Paste for the treatment of pulpitis and periodontitis**

#### **Composition**

Iodoform  
Camphor  
Zinc Oxide  
Olive oil  
Radiopaque filler

#### **Indications and properties**

"Iodex" is used as a preventive and therapeutic agent in the treatment of pulpitis, acute or chronic periodontitis. Paste "Iodex" has a disinfecting and antibacterial properties, increases the protective abilities of periapical tissues, does not prevent the development of tooth germ. Preparation is radiopaque, paste does not harden in the root canal.

#### **Recommended use**

After endodontic preparation fill the root canal to the apex with the paste of "Iodex" for 2-3 weeks. After a positive clinical outcome (with X-ray control) remove the temporary filling material, wash the root canal with antiseptic and fill it with a permanent filling material.

**To note.** "Iodex" tends to harden on the surface when the jar left open for a long time. It is recommended to close the jar after each use; if necessary to mix the paste by any dry tool before use; in the case of hardening it can be softened by any fatty oil (peach, etc.). Like all materials on camphor and menthol base, the paste should be used with caution in the treatment of children under 7 years.

#### **Package contents and storage**

Paste for the treatment of periodontitis "Iodex" is available in a glass jar with 15 g of soft paste.

Keep in dry, cool and dark place.  
Shelf life is 3 years.

### PULPOSEPTINE

**Dental material – a paste for the treatment of gangrenous pulpitis and periodontitis**

#### Indications:

- as a medical dressing in root canals in the treatment of gangrenous pulp and periapical periodontitis in the stage of inflammation;
- for the treatment of cysts and granulomas, in the presence of a fistula.

#### Composition and properties

Chloramphenicol  
Neomycin sulfate  
Dexamethasone  
Base

A balanced combination of two antibiotics that have been selected because of its wide range of bacteriostatic action, can suppress infections occurred in the pulp. These antibiotics are usually intended for local use, they do not have a danger of addiction.

Chloramphenicol has a broad spectrum of antimicrobial activity. It is active against many gram-positive and gram-negative bacteria. It acts on the bacterial strains that are resistant to penicillin, streptomycin, sulfonamides.

Neomycin sulfate affects most chloramphenicol-resistant bacteria. It has a broad spectrum of antimicrobial activity. It is active against many gram-negative bacteria and cocci. Increased dosage of dexamethasone blocks acute inflammatory, allergic processes in the periapical tissues without affecting the protective reaction of the body.

#### Recommended use

Before applying the paste make a preparation of the root canal using the endodontic instrument to the apex using EDTA-containing materials (liquid or gel for chemical enlargement of a root canal) combining with the treatment with sodium hypochlorite. After complete processing of the root canal slightly dry the canal and introduce the paste "Pulposeptine" to the apex using rotary paste filler. Close with temporary dressing. Dosage is determined separately in each case. A full dose is considered as 20 mg for one root canal. The preparation has no adverse systemic effects.

On the second visit after 5-7 days remove a temporary filling material and residuals of paste "Pulposeptine", clean and treat the root canal with the use of appropriate materials and techniques. After processing is complete, thoroughly dry the canal and fill it with a suitable material for root canal filling.

#### Packing and storage

Paste "Pulposeptine" is available in tubes of 10 g.  
Keep in a dark place with temperature under +8°C.  
Shelf life is 3 years.

### METROZOL

#### Dental material – a paste for the treatment of gangrenous pulpitis and periodontitis

##### Indications:

- as a medical dressing in root canals in the treatment of gangrenous pulp and periapical periodontitis and acute inflammations;
- for the treatment of granulomas, fistulas and cysts.

##### Composition and properties

Metronidazole  
Chlorhexidine  
Polymer base

Balanced combination of metronidazole and chlorhexidine, which provide the most effective antimicrobial action due to its wide range of bacteriostatic action, can suppress infections that occurred in the pulp. These drugs are usually intended for local use, they do not have a danger of addiction or allergy.

Metronidazole is a derivative of nitroimidazole, it has antiprotozoal and antibacterial action. The mechanism of action of metronidazole is in biochemical interaction with DNA of microbial cells by inhibiting synthesis of nucleic acids, which leads to the death of the bacteria.

Chlorhexidine is an antiseptic. It has antimicrobial action. The mechanism of action consists in the fact that at high concentrations of chlorhexidine cytoplasmic contents and precipitated bacterial cells leads to the death of the bacteria.

##### Recommended use

Isolate the tooth from contamination with saliva. Before applying the paste make the preparation – remove the carious dentin and pulp residues from the root canal. After completion of the processing of the canal dry it and introduce the paste "Metrozol" with rotary paste filler to the apex. In the cavity put a rolled ball of sterile cotton wool and over the top of it impose tight temporary bandage.

On the second visit after 2-3 days, remove the temporary material and residues of paste "Metrozol". Determine the effectiveness of treatment. If necessary, repeat the treatment. In case of a positive result clean and treat the root canal using EDTA-containing materials having from time to time processing with sodium hypochlorite. After processing is complete, thoroughly dry the canal and fill it with a suitable material for root canal filling.

##### Package contents and storage

Paste "Pulposeptine" is available in tubes of 8 g.  
Keep in cool dry place with temperature from +4°C to +14°C.  
Shelf life is 3 years.



### **GlassIn Base**

#### **Lining cement of chemical cure for using in combination with composite materials and amalgam**

#### **Indications**

"GlassIn Base" is a glass polyalkenate lining cement self-curing, it is used as a liner when filling with composites and amalgams. With deep caries it is used in combination with calcium hydroxide liner.

#### **Composition and properties**

The powder is fine dispersed aluminum-calcium-lanthanum-fluor-silicon glass with radiopaque additives. The liquid is an aqueous solution of polyacrylic acid (with special molecular weight) with organic additives which improve its properties. System "powder+liquid" is characterized by the fact that after the formation of the cement structure, all the particles remain bound that further prevents them leaching from cement. "Glassin Base" has a high biocompatibility with the tissues of the tooth and has a chemical adhesion to dentin and enamel. Anticaries effect provided by the sustained release of fluoride ions. When filling the deep cavities where the thickness of residual dentine less than 1 mm, it is recommended to cover the cavity of the protective layer of calcium hydroxide liner. The rest of the dentine surface is left open to allow chemical bonding of cement to dentin.

#### **Recommended use**

Proceed with mechanical treatment in a usual manner, wash and dry the cavity. Prepare the material at room temperature on a glass plate or a special pad with a spatula. Cement may be applied in two consistencies: fluid and dense.

Fluid consistence is for isolating liners: mix 1 spoon of powder with 1 drop of liquid. Dense consistence is for the base linings: mix 2 spoons of powder with 1 drop of liquid. The proposed ratio of powder to liquid is approximate, and in each case the proportion should be determined independently for obtaining the required consistency of paste.

In the beginning the full amount of the liquid is mixed with half amount of the powder. The remaining powder is introduced by small portions until we have a homogeneous mixture with a glossy surface. Mixing is carried out within 60 seconds until obtaining the necessary consistency of a paste. Working time of the prepared material is from 1,5 to 2 min. Material is introduced into the prepared cavity using plugger or spatula and spread evenly, covering the entire area of dentine. Total time of hardening is 5 min from the start of mixing. After that time you are ready for further manipulation associated with the applying of composite or other materials.

#### **Package contents and storage**

Available in bottles: 10 g of powder and 8 g of liquid.

Keep the material in cool dry place with bottles tightly closed. Recommended temperature is from +4°C to +25°C.

Shelf life is 3 years.

### **GlassIn Rest**

#### **Chemical cure glass-polyalkenate cement for restoration of cavities of III and V classes and for all classes cavities in primary teeth**

"GlassIn Rest" is a chemical cure glass-polyalkenate cement for restoration of cavities of III and V classes

#### **Indications:**

- filling the cavities of all classes in primary teeth;
- filling of non-carious lesions;
- can be used as a lining for all kinds of fillings.

#### **Properties and composition**

The powder is fine dispersed aluminum-calcium-lanthanum-fluor-silicon glass with radiopaque additives. The liquid is an aqueous solution of polyacrylic acid (with special molecular weight) with organic additives which improve its properties. System "powder+liquid" is characterized by the fact that after the formation of the cement structure, all the particles remain bound that further prevents them leaching from cement. "GLASSIN Rest" is characterized by high strength and biocompatibility to the tooth structures. Increased chemical adhesion to dentin and enamel provides a tight marginal seal.

"GlassIn Rest" has optimum aesthetic parameters. Anticaries effect is provided by the sustained release of fluoride ions. When filling with deep cavities where the thickness of residual dentine less than 1 mm, it is recommended to cover the cavity of the protective seal by the calcium hydroxide remaining dentin surface is left open to allow chemical bonding material to dentin.

#### **Recommended use**

After opening the cavity proceed with mechanical treatment in a usual manner, wash and dry the cavity.

Prepare the material on a special pad with a spatula.

The ratio is 2 spoons of powder with 1 drop of liquid.

In the beginning the full amount of the liquid is mixed with half amount of the powder. The remaining powder is introduced by small portions until we have a homogeneous mixture with a glossy surface. Mixing is carried out within 45-60 seconds until obtaining the necessary consistency of a paste, similar to a paste for filling. Working time of the prepared material from 1,5 to 2 min. In the process of restoration and curing the material does not come in contact with water. Time of final hardening is 5-6 min from the start of mixing. Preliminary finishing and polishing may not be made earlier than 15-20 minutes. At the end of the finishing the filling can be coated with a protective varnish. Final finishing is carried out after 24 hours.

#### **Package contents and storage**

Available in bottles: 10 g of powder and 8 g of liquid.

Keep the material in cool dry place with bottles tightly closed. Recommended temperature is from +4°C to +25°C.

Shelf life is 3 years.

### **GlassIn Kids**

#### **Chemical cure restorative glass-polyalkenate cement for pediatric dentistry**

"GlassIn Kids" is a chemical cure glass-polyalkenate filling material

#### **Indications:**

- filling the cavities of all classes in primary teeth;
- filling the cavities of III and V classes of permanent teeth;
- filling of non-carious lesions;
- can be used as a lining for all kinds of fillings.

#### **Properties and composition**

The powder is fine dispersed aluminum-calcium-lanthanum-fluor-silicon glass with radiopaque additives. The liquid is an aqueous solution of polyacrylic acid (with special molecular weight) with organic additives which improve its properties. System "powder+liquid" is characterized by the fact that after the formation of the cement structure, all the particles remain bound that further prevents them leaching from cement. "GLASSIN Kids" is characterized by high strength and biocompatibility to the tooth structures. Increased chemical adhesion to dentin and enamel provides a tight marginal seal.

"GlassIn Kids" has optimum aesthetic parameters. Anticaries effect is provided by the sustained release of fluoride ions. When filling with deep cavities where the thickness of residual dentine less than 1 mm, it is recommended to cover the cavity of the protective seal by the calcium hydroxide remaining dentin surface is left open to allow chemical bonding material to dentin.

#### **Recommended use**

After opening the cavity proceed with mechanical treatment in a usual manner, wash and dry the cavity.

Prepare the material on a special pad with a spatula.

The ratio is 2 spoons of powder with 1 drop of liquid.

In the beginning the full amount of the liquid is mixed with half amount of the powder. The remaining powder is introduced by small portions until we have a homogeneous mixture with a glossy surface. Mixing is carried out within 45-60 seconds until obtaining the necessary consistency of a paste, similar to a paste for filling. Working time of the prepared material from 1,5 to 2 min. In the process of restoration and curing the material does not come in contact with water. Time of final hardening is 5-6 min from the start of mixing. Preliminary finishing and polishing may not be made earlier than 15-20 minutes. At the end of the finishing the filling can be coated with a protective varnish. Final finishing is carried out after 24 hours.

#### **Packing and storage**

Available in bottles: 10 g of powder and 8 g of liquid.

Keep the material in cool dry place with bottles tightly closed.

Recommended temperature is from +4°C to +25°C.

Shelf life is 3 years.

### **GlassIn Fiss**

#### **Chemical cure glass-polyalkenate restorative cement for pit&fissures sealing with prolonged fluoride ions release**

“GlassIn Fiss” is used for sealing pit and fissures of posterior teeth.

#### **Indications:**

- isolating the surfaces of exposed necks of teeth;
- filling of non-carious lesions;
- linings for all kinds of fillings.

#### **Properties and composition**

The powder is fine dispersed aluminum-calcium-lanthanum-fluor-silicon glass with radiopaque additives. The liquid is an aqueous solution of polyacrylic acid (with special molecular weight) with organic additives which improve its properties. System "powder+liquid" is characterized by the fact that after the formation of the cement structure, all the particles remain bound that further prevents them leaching from cement. "GlassIn Fiss" is characterized by high strength and biocompatibility to the tooth structures. Increased chemical adhesion to dentin and enamel provides a tight marginal seal. Anticaries effect is provided by the sustained release of fluoride ions.

#### **Recommended use**

The material is prepared at room temperature on a glass plate or a special pad with a spatula. The ratio for normal consistence of the cement is 1 spoon of powder to 1 drop of liquid. The proposed ratio of powder to liquid is approximate. In each case the proportion should be determined independently for obtaining the required consistency of paste.

In the beginning the full amount of the liquid is mixed with half amount of the powder. The remaining powder is introduced by small portions until we have a homogeneous mixture with a glossy surface. Mixing is carried out within 60 seconds until obtaining the necessary consistency of a paste. Working time of the prepared material is from 1,5 to 2 min. Prepared fissure should be cleaned and dry. Freshly mixed material is applied in the prepared fissure, covering the entire sealed area. Total time of hardening is 5-7 min from the start of mixing. After that time you are ready for further manipulation.

#### **Package contents and storage**

Available in bottles: 10 g of powder and 8 g of liquid.

Keep the material in cool dry place with bottles tightly closed.

Recommended temperature is from +4°C to +25°C.

Shelf life is 3 years.

### **GlassIn Fix**

#### **Chemical cure glass-polyalkenate cement for fixation of posts, crowns, inlays**

#### **Indications**

"GlassIn Fix" is used for adhesive fixation of crowns and bridges, for inlays, onlays and posts.

#### **Properties and composition**

The powder is fine dispersed aluminum-calcium-lanthanum-fluor-silicon glass with radiopaque additives. The liquid is an aqueous solution of polyacrylic acid (with special molecular weight) with organic additives which improve its properties. System "powder+liquid" is characterized by the fact that after the formation of the cement structure, all the particles remain bound that further prevents them leaching from cement. "GLASSIN Fix" is characterized by high strength and biocompatibility to the tooth structures. Increased chemical adhesion to dentin and enamel provides a tight marginal seal. Increased chemical adhesion to dentin and enamel provides a tight marginal seal. "GLASSIN Fix" has high adhesion to the various dental restorative materials. Anticaries effect is provided by the sustained release of fluoride ions.

#### **Recommended use**

The material is prepared at room temperature on a glass plate or a special pad with a spatula.

The ratio is 1 spoon of powder to 1 or 1,5 drops of liquid (depending of the necessary consistence).

In the beginning the full amount of the liquid is mixed with half amount of the powder. The remaining powder is introduced by small portions until we have a homogeneous mixture with a glossy surface. Mixing is carried out within 45-60 seconds until obtaining the necessary consistency of a paste, similar to a paste for filling. Working time of the prepared material is 2 to 3 min. Time of final hardening is 6-7 min from the start of mixing. Fixation is performed in traditional manner. After curing it is necessary to remove the excess of the material with appropriate instruments.

#### **Package contents and storage**

Available in bottles: 10 g of powder and 8 g of liquid.

Keep the material in cool dry place with bottles tightly closed.

Recommended temperature is from +4°C to +25°C.

Shelf life is 3 years.

### **CALCIPULPINE** **dental materials for lining and isolation based on calcium hydroxide,** **CALCIPULPINE-F with fluoride additives**

#### **Composition:**

Sodium fluoride (only in "Calcipulpine-F")  
Calcium hydroxide (of highest qualification)  
Zinc oxide  
Barium sulfate  
Methylcellulose  
Distilled water

#### **Indications and properties:**

- "Calcipulpine" is used as a protective layer covering the dentin in deep caries;
- accidental opening of the pulp;
- in cases of hypersensitive of teeth prepared for a crown.

"Calcipulpine" promotes the prevention of pulp from harmful influences, primarily from the toxins of microorganisms, as well as stimulates the formation of secondary dentin. It is recommended to put that preparation on the accidentally exposed pulp. This method is also used in the treatment of pulpitis by biological method (hyperemia of the pulp, the early stages of pulpitis of permanent teeth in children).

The material comprises calcium hydroxide, which has highly alkaline environment. Being on the bottom of the cavity, it neutralizes acids coming from cementitious materials thereby preventing their penetration into the pulp.

By direct contact with a healthy pulp "Calcipulpine" contributes to the formation of secondary dentin. The material is applied with a thin layer and hardens over time, without affecting the process of further filling.

#### **Recommended use**

In deep caries open a cavity as much as possible by one of the traditional methods, clean the cavity wall of the destroyed infected dentin.

Apply "Calcipulpine" to the bottom of the cavity, spread it with a thin layer on the surface by instrument or compressed air, avoiding spraying out (treatment by air accelerates drying of a paste). Wait for some time while the paste dries. If necessary, in order to increase the layer of liner successive layers of material can be applied, each has to be dried. At the end of the layering clean the cavity of excess of the material and seal it without a pressure.

In the indirect coating it is necessary to determine the viability of the pulp with one of the traditional methods, to conduct the mechanical treatment, as well as with deep caries. "Calcipulpine" is applied by the method described above. Allow the material to dry and seal it without excessive pressure.

#### **Package contents and storage**

The material is packaged in two plastic syringe 2,5 ml each. The package includes 4 metal cannula and a plastic container filled with calcium hydroxide with special additives that prevent the hardening of the material in the cannula.

To prepare for the work remove the cap from the syringe with the paste and replace it with a curved cannula. Then, into the opening of a plastic container with a safety paste fixed on the syringe tip

## **LINERS Ca(OH) FOR ISOLATION AND PROTECTION**

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cannula up the area of a bend. Subsequently, the paste should be stored in this way.

Before applying separate cannula from the container (to wipe the excess of the safety paste) and squeeze out the required amount of paste. Apply the paste on the working surface, using the cannula as the applicator. At the end of manipulation to remove residue with a cotton tampon and the tip of the cannula immediately placed in a container. Avoid prolonged contact of the cannula with open air. In the case of hardening of the material within the cannula, replace it with a new one.

The package, in addition to two plastic syringes, includes 4 metal cannulas and a plastic container filled with calcium hydroxide with special additives that prevent the hardening of the material in the cannula.

Store in a cool dry place protected from sunlight.

Shelf life is 3 years.

### CALCIPULPINE PLUS

two-component isolation liner based on calcium hydroxide

#### Composition

<i>Pasta-A:</i>	<i>Pasta-B:</i>
Calcium hydroxide	Calcium tungstate
Barium sulfate	Calcium phosphate
Zinc oxide	Salicylic polymer
Butanediol	

#### Indication and properties

"Calcipulpine Plus" is used as a protective self-curing lining on the basis of calcium hydroxide in cases of direct and indirect pulp capping and isolation of the tooth cavity from filling materials.

"Calcipulpine Plus" promotes prevention pulp from harmful influences, primarily from the toxins of microorganisms. The material comprises calcium hydroxide, which has a highly alkaline environment. Being on the bottom of the cavity, it neutralizes acids coming from cementitious materials thereby preventing their penetration into the pulp. In direct contact with the healthy pulp paste facilitates the formation of secondary dentine.

"Calcipulpine Plus" is a two-component system (paste + pasta), which is formed by mixing a homogeneous paste, which is easily applied to the cavity. The material does not interfere with the polymerization of composites at the contact with them, since it is based on the compatible with composites polymer. Material obtained by mixing the two pastes hardens in the cavity as a result of exposure to heat and moisture for 2-3 min obtaining a thin radiopaque layer under all types of permanent fillings.

#### Recommended use

Open a cavity as much as possible by one of the traditional methods, clean the walls from the necrotic tissue. When exposed or bleeding pulp make treatment of its surface very carefully (washing the pulp by heated anesthetic or saline). Bleeding stops. Do not allow the irritation of pulp tissue.

Squeeze the equal amounts of pastes A and B on the mixing pad. Mix them rapidly for 25-40 seconds to obtain a homogeneous mass. Apply the paste with a plugger to the cavity to cover the pulp. The curing time of the material in the cavity of approximately 2-3 min., it depends on the temperature and humidity of the environment in which the material is used. The curing time of the material in the oral cavity is increased due to the higher humidity and temperature.

Do not inject an excessive amount of paste into the cavity. Avoid contact with the edges of the cavity. After the procedure, clean the cavity of the excess material. "Calcipulpine Plus" is covered by glass-ionomer cement (GIC), then the restoration of the tooth is performed.

#### Package contents and storage

The material is packed in tubes by 10 g of paste-A and 13 g of paste-B. Each tube has a tip of appropriate color. Do not change the tips of the tubes. Mixing pad is enclosed.

Keep the material in cool dry place away from sunlight.

Recommended temperature is +4°C to +24°C.

Shelf life is 3 years.



### CALSEPT

**Dental material based on calcium hydroxide for root canal filling in case of endodontic treatment of infected canals**

#### Indications:

- for the treatment of infected root canals;
- for temporary filling the root canals with granulating and granulomatous periodontitis;
- therapeutic lining in cases of deep caries.

#### Composition

Calcium hydroxide	Calcium chloride
Barium sulfate	Soda
Sodium chloride	Distilled water
Potassium chloride	

#### Properties

As a result of inflammatory process in the pulp and periodontal tissue infection in the dentinal tubules penetrates the dentin of the root, so you need to carry out a temporary obturation with material like "Calsept" for prolonged antiseptic effects on additional root canals.

It was established that in case of root canal obturation by temporary material "Calsept" bacteria do not survive in 95% of cases.

Calcium hydroxide is a white powder, tasteless and odorless with a highly alkaline environment  $\text{pH} \approx 12$ .

**Attention!** For preservation of highly alkaline environment materials based on calcium hydroxide produced in special conditions according to special technology and should be stored in a sealed state (hermetically), since the contact with air calcium hydroxide converts to calcium carbonate (chalk) and loses its therapeutic properties.

#### Recommended use

Before filling the root canal you need to remove the pulp and softened infected dentin from there. Root canals are to be carefully processed mechanically and chemically.

In a wide straight root canal you can insert the cannula almost completely, squeeze the portion of paste "Calsept" and then condense it by conventional method.

In curved channels "Calsept" is applied to the orifice of the root canal and tightly condensed with endodontic instruments or sterile cotton points. The more you condense the paste, the better radiopacity of the material you get.

It is enough to fill the root canal to the apex, and in all narrow and curved canals as far as possible, in presence of the developed growing zone you need to stop 1-2 mm to the apex. In case of the introducing the material over the apex no troubles occur due to sterility and complete immune indifference of the material. Then the tooth cavity is closed with cement.

#### Package contents and storage

The material is packed in two plastic syringes by 2,5 ml each. 20 special cannules are enclosed.

**Do not leave the syringes open!**

Keep the material in cool dry place.

Recommended temperature is  $+4^{\circ}\text{C}$  to  $+24^{\circ}\text{C}$ .

Shelf life is 3 years.

### CALSEPT IODO

**Dental material based on calcium hydroxide for root canal filling in case of endodontic treatment of infected canals (with iodoform)**

#### Indications:

- for the treatment of infected root canals;
- for temporary filling the root canals with granulating and granulomatous periodontitis;
- therapeutic lining in cases of deep caries.

#### Composition

Calcium hydroxide	Potassium chloride
Barium sulfate	Calcium chloride
Iodoform	Soda
Sodium chloride	Distilled water

#### Properties

As a result of inflammatory process in the pulp and periodontal tissue infection in the dentinal tubules penetrates the dentin of the root, so you need to carry out a temporary obturation with material like "Calsept IODO" for prolonged antiseptic effects on additional root canals.

It was established that in case of root canal obturation by temporary material "Calsept IODO" bacteria do not survive in 95% of cases.

Calcium hydroxide is a white powder, tasteless and odorless with a highly alkaline environment  $\text{pH} \approx 12$ . Iodoform increases the antiseptic effect of the preparation.

**Attention!** For preservation of highly alkaline environment materials based on calcium hydroxide produced in special conditions according to special technology and should be stored in a sealed state (hermetically), since the contact with air calcium hydroxide converts to calcium carbonate (chalk) and loses its therapeutic properties.

#### Recommended use

Before filling the root canal you need to remove the pulp and softened infected dentin from there. Root canals are to be carefully processed mechanically and chemically.

In a wide straight root canal you can insert the cannula almost completely, squeeze the portion of paste "Calsept IODO" and then condense it by conventional method.

In curved channels "Calsept IODO" is applied to the orifice of the root canal and tightly condensed with endodontic instruments or sterile cotton points. The more you condense the paste, the better radiopacity of the material you get.

It is enough to fill the root canal to the apex, and in all narrow and curved canals as far as possible, in presence of the developed growing zone you need to stop 1-2 mm to the apex. In case of the introducing the material over the apex no troubles occur due to sterility and complete immune indifference of the material. Then the tooth cavity is closed with cement.

#### Package contents and storage

The material is packed in two plastic syringes by 2,5 ml each. 20 special cannules are enclosed.

**Do not leave syringes open!**

Keep the material in cool dry place.

Recommended temperature is  $+4^{\circ}\text{C}$  to  $+24^{\circ}\text{C}$ .

Shelf life is 3 years.

### RETRAGEL

#### Gel for gum retraction before taking an impression and arresting mild gum bleeding

##### Composition

Aluminum chloride  
Hydroxyquinoline sulfate  
Stabilizer  
Gelling agent  
Filler

##### Indications:

- retraction of the gums before taking an impression without removing or with preliminary removal of soft gum tissue adjacent to the tooth;
- preparation for fixing the permanent prosthesis;
- arresting the weak capillary bleeding;
- arresting the weak gingival bleeding in the cervical area of the tooth.

##### Properties

Before taking an impression dentists use a retraction cord for gingival retraction, but sometimes this procedure is far from ideal and there is a risk of short-term tissue trauma. Since the amount of active ingredient that is impregnated in retraction cord is not enough for efficient retraction, retraction cord is to be used in conjunction with retraction gel, which unlike the fluid does not flow from the area to be treated.

"Retragel" is a polymeric gel of aluminum chloride, which does not flow after application to the surface and firmly fixed to the treated area. Since the active components are in a polymeric state, such a gel is not subject to drying, which gives certain advantages and convenience in working.

"Retragel" has astringent, styptic and disinfectant properties due to the presence of aluminum chloride and other vasoconstrictor and antiseptic ingredients that beneficially affect the treatment area.

##### Recommended use

Remove the cap from the syringe and replace it with a cannula for application. For gingival retraction it is necessary to isolate the treatment area from saliva. Slowly squeezing the gel, apply it to the gum under the neck of the tooth. Do not put pressure on the gums by cannula (see Fig. 1). Apply such amount of gel so that it fills the gingival sulcus with the excess. This will ensure sufficient gingival retraction.

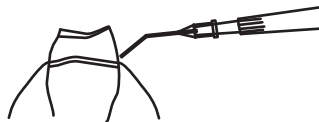


Figure 1

Cut the thread of necessary number with the length of 7-10 cm in wrap a tooth with it at the gingival level (see Fig. 2).



Figure 2

With an instrument insert the cord in gingival sulcus (see Fig. 3).



Figure 3.

If during the preliminary manipulation the integrity of the epithelium was not violated, the exposure time can be limited to 30-40 seconds. In other cases it should be 1-2 minutes.

During exposure of the gel avoid its contact with saliva and water. After retracting the gums wash off the gel with water from tooth stump and adjacent tissues. The corn is removed and the treated surface re-irrigated with water. The edges of the stump must be clean.

Check whether the gel is removed completely from the treated surface. Do not use instruments that can damage the surrounding tissues.

### **Package contents and storage**

The material is packed in two plastic syringes by 2,5 ml each. 25 disposable metal cannulas are enclosed.

Keep the material in cool dry place.

Recommended temperature is +4°C to +24°C.

Shelf life is 3 years.

### ALVOSTASE (filaments)

#### Hemostatic and antiseptic alveolar dressing

##### Indications

For the prevention and treatment of alveolitis.

##### Composition and properties

Tricalcium phosphate  
Eugenol  
Olive oil  
Viscose filament  
Iodoform

"Alvostase" (filaments) is a special agent for the prevention and treatment of alveolitis. Placed in the alveolus "Alvostase" (filaments) quickly reduces inflammation and pain. Material exerts its effect in a few hours, and then gradually discharged to the outside. With weak local toxicity, it does not cause inflammation of the oral mucosa. When using the material as a prophylactic remedy impregnation preparations in a very short time contributes painless healing of the extraction site.

##### Contraindications.

"Alvostase" (filaments) is contraindicated in patients with hypersensitivity to iodine.

##### Recommended use

After extraction of a tooth it is necessary to wash and clean the extraction site. A small amount of filaments carefully placed in the hole. "Alvostase" can be covered by a dry cotton tampon. Patients should be warned that over time a tampon will be gradually torn away.

Only for topical application.

##### Package contents and storage

The jar contains 10 g of viscose filament 1 cm of width and 1 m of length, impregnated by curing paste.

Keep the material in cool dry place.

Shelf life is 3 years.

### ALVOSTASE (sponge №1)

#### Hemostatic and antiseptic alveolar dressing

##### Indications

For the prevention and treatment of alveolitis. It is introduced into extraction site.

##### Composition and properties

Tricalcium phosphate  
Eugenol  
Olive oil  
Hemostatic sponge  
Iodoform

"Alvostase" (sponge №1) is a special agent for the prevention and treatment of alveolitis. Placed in the alveolus "Alvostase" (sponge №1) quickly reduces inflammation and pain. Material exerts its effect in a few hours, and then gradually resorbed in the extraction site.

Preparation does not cause inflammation of the oral mucosa. When using the material as a prophylactic remedy preparations in a very short time contributes painless healing of the extraction site.

##### Contraindications.

"Alvostase" (sponge №1) is contraindicated in patients with hypersensitivity to iodine.

##### Recommended use

After extraction of a tooth it is necessary to wash and clean the extraction site and to achieve the formation of a blood clot. If necessary, in case of the possible inflammation, it is recommended to insert "Alvostase-sponge" to the extraction site. Then cover it by a dry cotton tampon. In case of traumatic extraction the site can be sutured over the sponge. The sponge is resorbed completely.

Only for topical application.

##### Package contents and storage

Material is packed in jars with 30 sponges 1x1 cm, impregnated by curing paste.

Keep in cool dry place.

Shelf life is 3 years.

### ALVOSTASE (sponge №2)

#### Hemostatic and antiseptic alveolar dressing with chlorhexidine and metronidazole

##### Indications

- prevention of inflammatory complications following surgical procedures in the oral cavity;
- alveolar dressing after the extraction of teeth, the treatment of alveolitis and periodontal abscess;
- filling of the periodontal pocket after local anti-inflammatory therapy or curettage for antiseptic treatment.

##### Composition

Metronidazole  
Chlorhexidine  
Tricalcium phosphate  
Olive oil  
Hemostatic sponge

##### Properties

"Alvostase" (sponge №2) with metronidazole and chlorhexidine is a special remedy for use in surgical dentistry and periodontics. Composition contains drugs acting bactericidal and having a sufficiently high activity against most pathogenic oral microorganisms.

Formulations of impregnation have a therapeutic effect within a few hours, and then the sponge is completely resorbed. Lacking local toxicity, "Alvostase-sponge" not cause ulceration of the mucous tissues. When using the material as a prophylactic agent, impregnating agents in a very short time contributes painless healing.

##### Recommended use

After extraction of a tooth it is necessary to wash and clean the extraction site. In order to remove infected granulation or necrotic tissue, detached from the root radicular granuloma and bone fragments, the extraction site should be washed with warmed saline. Suck the wash liquid from the wells using a pipette and isolate the site well. Take one cube of sponge "Alvostase" №2 from a jar by forceps and gently place it in the hole. Cover the sponge with a dry tampon.

After treatment of periodontal pockets the part of the sponge is placed in the treated cavity.

Left in the wound cavity sponge is completely resorbed. Based on this, if necessary, the sponge may be covered by sutures. You should not remove a sponge at the end of treatment.

##### Package contents and storage

Material is packed in jars with 30 sponges 1x1 cm, impregnated by active preparation.

Keep in cool dry place.

Shelf life is 3 years.

### ALVOSTASE (sponge №3)

#### Hemostatic and antiseptic alveolar dressing with chloramphenicol and neomycin

##### Indications

- prevention of inflammatory complications following surgical procedures in the oral cavity;
- alveolar dressing after the extraction of teeth;
- the treatment of alveolitis and periodontal abscess;
- filling of the periodontal pocket after local anti-inflammatory therapy or curettage for antiseptic treatment.

##### Composition

Chloramphenicol  
Neomycin sulphate  
Chlorhexidine  
Dexamethazone  
Olive oil  
Hemostatic sponge

##### Properties

"Alvostase" (sponge №3) with chloramphenicol and neomycin is a special remedy for use in surgical dentistry and periodontics. Composition contains drugs acting bactericidal and having a sufficiently high activity against most pathogenic oral microorganisms and agents of pyogenic infections. Impregnation drugs active against strains of bacteria that are resistant to penicillin, tetracycline, sulfonamides.

Formulations of impregnation have a therapeutic effect within a few hours, and then the sponge is completely resorbed. Lacking local toxicity, "Alvostase-sponge" not cause ulceration of the mucous tissues. When using the material as a prophylactic agent, impregnating agents in a very short time contributes painless healing.

##### Recommended use

After extraction of a tooth it is necessary to wash and clean the extraction site. In order to remove infected granulation or necrotic tissue, detached from the root radicular granuloma and bone fragments, the extraction site should be washed with warmed saline. Suck the wash liquid from the wells using a pipette and isolate the site well. Take one cube of sponge "Alvostase" №3 from a jar by forceps and gently place it in the hole. Cover the sponge with a dry tampon.

After treatment of periodontal pockets the part of the sponge is placed in the treated cavity.

Left in the wound cavity sponge is completely resorbed. Based on this, if necessary, the sponge may be covered by sutures. You should not remove a sponge at the end of treatment.

##### Package contents and storage

Material is packed in jars with 30 sponges 1x1 cm, impregnated by active preparation.  
Keep in cool dry place.  
Shelf life is 3 years.



### **HEMOSTAB-AL** **Liquid for capillary hemostasis**

#### **Indications:**

- capillary bleeding of the gums in the cervical area of the tooth;
- intracanal bleeding.

#### **Composition**

Aluminum chloride  
Hydroxyquinoline sulfate  
Stabilizer

#### **Properties**

The liquid is a solution of aluminum chloride. Aluminum chloride stops capillary bleeding.

In the case when it is necessary to eliminate bleeding from the gingiva, it is necessary to isolate treated area and apply hemostatic solution to the gingival surface area of bleeding and around to avoid blood leakage.

In order to eliminate intracanal bleeding a root canal should be treated with tampons soaked in a solution of liquid hemostatic. In a short time the liquid stops and prevents recurrent bleeding, which gives the opportunity to continue working in the root canal.

#### **Package contents and storage**

Liquid is available in bottles of 13 ml and 25 ml.  
Keep in cool dry place.  
Shelf life is 3 years.

### **HEMOSTAB-FE** **Liquid for capillary hemostasis**

#### **Indications:**

- arresting capillary bleeding;
- capillary bleeding of the gums in the cervical area of the tooth;
- apical bleeding in the root canal.

#### **Composition**

Ferrous sulphate  
Hydroxyquinoline sulfate  
Distilled water

#### **Properties**

“Hemostab” is an aqueous solution of ferrous sulphate. Ferrous sulphate stops capillary bleeding. In the case when it is necessary to arrest bleeding from the gingiva, it is necessary to isolate treated area and apply hemostatic solution to the gingival surface area of bleeding.

Pulp extirpation may cause bleeding in the root canal, hematoma formation at the apex of the tooth root following the inflammatory process with subsequent development of granuloma. In order to alleviate such effects a root canal should be treated with turundas moistened with a liquid hemostatic. In a short time the liquid stops and prevents recurrent bleeding, which gives the opportunity to continue working in the root canal.

#### **Package contents and storage**

Liquid is available in bottles of 13 ml.  
Keep in cool dry place.  
Shelf life is 3 years.

### ALGISTAB

#### Hemostatic and antiseptic dental material

##### Indications

"Algistab" is used as a hemostatic agent after teeth extractions, removal of dental plaque, curettage of periodontal pockets, removal of exostosis of the alveolar processes, gingivectomy, microtraumas of gums after making dental impressions. Patients with hemophilia should receive specific treatment.

##### Composition

Alginat sodium  
Potassium sorbate  
Sodium benzoate  
Iodoform  
Tricalcium phosphate

##### Recommended use

Shake before use.

In all cases, except teeth extraction, remove the excess of blood with hydrogen peroxide or distilled water. Treat a bleeding wound with hygroscopic tampon, removing the excess of blood. Apply powder "Algistab" to the treated surface of the wound by spraying. Make sure that the powder covers the edges of the wound preventing the leakage of blood around the edges. In severe cases, apply the powder (by spraying) on the surface of a gauze tampon and apply to the surface of a bleeding wound.

##### Contraindication

The drug is contraindicated in patients with hypersensitivity to iodine.

##### Package contents and storage

Liquid is packed in plastic bottle with a tip for spraying. It contains 10 g of powder.  
Keep in cool place protected from moisture.  
Shelf life is 3 years.

### **LIDOXOR GEL** **Topical anesthetic for oral tissues**

#### **Indications:**

- surface anesthesia of mucosa before injection;
- surface anesthesia in removing primary teeth;
- removing mobile teeth;
- opening periodontal abscess;
- removing dental plaque;

#### **Contraindications**

Possible allergic reaction to lidocaine.

#### **Composition and properties**

Sodium carboxymethyl cellulose  
Chamomile extract  
Yarrow extract  
Lidocaine  
Xylitol  
Flavoring agent  
Excipients

The composition of the material includes lidocaine, has a profound and rapid anesthetic effect on the treated surface.

Flavors, contained in the gel, give a pleasant smell, xylitol gives sweet taste. "LIDOXOR" does not cause a burning sensation or tingling. Especially recommended for patients with an allergy to derivatives of of paraaminobenzoic acid, where the risk of such reactions is dramatically reduced.

#### **Recommended use**

Dry the treated surface of the mucosa. Squeeze out of the tube required amount of gel and smear desired location on the mucosa with the preparation. To achieve a deeper anesthesia it is necessary to apply the gel on a cotton tampon, and then treat with it prepared surface. If necessary, it is possible to apply a tampon to a target surface and keep for some time (1-2 min.) in order to obtain the desired effect.

#### **Contraindications**

Hypersensitivity to lidocaine and other components of the material.

#### **Package contents and storage**

Liquid is packed in tubes by 45 ml. "Lidoxor" gel is available in three tastes: green apple, citrus, forest berry. Keep in cool dry place.

Shelf life is 2 years.

After opening use within 1 year.

**POLISHPASTE-D-INITIAL**

**Paste with diamond filler for initial polishing of composites and ceramics**

**Indications**

Polishing paste for initial grinding and polishing the surface of fillings made of composite materials light- and self-cured and ceramics.

**Composition**

Diamond abrasive  
Water soluble polymer base  
Silicone additives  
Stabilizer  
Flavoring agent

**Properties**

The action of "PolishPaste-D-initial" based on the specific properties of the fine abrasive diamond powder.

Because of these properties diamond abrasive produces grinding and initial polishing of fillings made of composite materials.

**Recommended use**

Before starting the procedures the surface should be slightly dried. Apply to the polishing cup or brush the required amount of "Polishpaste-D-initial". The procedure should last 1-3 min at medium speed, not exceeding 8-10 thousands rpm and without excessive pressure on the surface. After the end of the polishing, wash out residual paste with water.

**Package contents and storage**

"Polishpaste-D-initial" is available in 2 syringes by 3 ml.  
Recommended temperature of storage is +4°C to +24°C.  
Shelf life is 3 years.

**POLISHPASTE-D-DRY GLOSS**

**Paste with diamond filler for final polishing of composites and ceramics to dry gloss**

**Indications**

Polishing paste for final polishing to dry gloss of fillings made of composite materials light- and self-cured and ceramics.

**Composition**

Diamond abrasive  
Water soluble polymer base  
Silicone additives  
Stabilizer  
Flavoring agent

**Properties**

The action of "Polishpaste-D-Dry gloss" based on the specific properties of the fine abrasive diamond powder.

Because of these properties diamond abrasive produces final polishing of fillings made of composite materials.

**Recommended use**

Before starting the procedures the surface should be slightly dried. Apply to the polishing cup or brush the required amount of "Polishpaste-D-Dry gloss". The procedure should last 1-3 min at medium speed, not exceeding 8-10 thousands rpm and without excessive pressure on the surface. Polish until the filling has dry gloss. After the end of the polishing wash out residual paste with water.

**Package contents and storage**

"Polishpaste-D-Dry gloss" is available in 2 syringes by 3 ml.  
Recommended temperature of storage is +4°C to +24°C.  
Shelf life is 3 years.

**POLISHPASTE-D-FINISH**

**Paste with diamond filler for final polishing of composites and ceramics**

**Indications**

Polishing paste for final polishing (last stage) of fillings made of composite materials light- and self-cured and ceramics.

**Composition**

Diamond abrasive  
Water soluble polymer base  
Silicone additives  
Stabilizer  
Flavoring agent

**Properties**

The action of "Polishpaste-D-Finish" based on the specific properties of the fine abrasive diamond powder.

Because of these properties diamond abrasive produces final polishing of fillings made of composite materials.

**Recommended use**

Before starting the procedures the surface should be slightly dried. Apply to the polishing cup or brush the required amount of "Polishpaste-D-Finish". The procedure should last 1-3 min at medium speed, not exceeding 8-10 thousands rpm and without excessive pressure on the surface. Polish until the filling has the required gloss. After the end of the polishing wash out residual paste with water.

**Package contents and storage**

"Polishpaste-D-Finish" is available in 2 syringes by 3 ml.  
Recommended temperature of storage is +4°C to +24°C.  
Shelf life is 3 years.

### **POLISHPASTE-Z**

#### **Paste for removal of dental calculus and final polishing of fillings**

##### **Indications:**

- polishing the root surface after scaling with the instruments;
- final polishing of fillings made of composite materials self- and light-cured.

##### **Composition**

Fine abrasive particles  
Binding agents  
Filler  
Flavoring agent  
Silicone additives

##### **Properties**

The action of "Polishpaste-Z" is based on the specific properties of the fine abrasive particles used in the paste. Because of these properties "Polishpaste-Z" removes not big dental calculus and produces polishing of teeth surface without damage. Furthermore, at final polishing of composite fillings "Polishpaste-Z" gives them a shine.

##### **Recommended use**

Before starting the procedures the surface should be slightly dried. Apply to the polishing cup or brush the required amount of "Polishpaste-Z". The procedure should last 1-3 min at medium speed without excessive pressure on the surface. When polishing the fillings the speed may be increased up to 8-10 thousands rpm Polish until the filling has the required gloss. After the end of the polishing, wash out residual paste with water.

##### **Package contents and storage**

"Polishpaste-Z" is available in plastic jar of 40 g.  
Recommended temperature of storage is +4°C to +24°C.  
Shelf life is 3 years.  
Keep out of direct sunlight.



### **POLISHPASTE-Z + F**

**Paste for removal of soft dental plaque and fine polishing of dental enamel**

#### **Indications:**

- removal of soft plaque with instruments;
- final polishing of tooth structures after removal of dental calculus;
- fluoridation of tooth enamel;
- antiseptic treatment of the enamel.

#### **Composition**

Fine abrasive particles  
Binding agents  
Fluoride-containing components  
Filler  
Silicone additives  
Flavoring agent

#### **Properties**

The action of "Polishpaste-Z +F" is based on the specific properties of the fine abrasive particles with the addition of fluoride-containing components. Because of these properties "Polishpaste-Z +F" removes soft dental plaque without damage of the enamel.

#### **Recommended use**

Apply to the polishing cup or brush the required amount of "Polishpaste-Z +F". The procedure should be at medium speed without excessive pressure on the surface. Polish until the surface has the required shine. After the end of the polishing, wash out residual paste with water.

After plaque removal it is necessary to eliminate all kinds of irregularities that prevent the formation of new dental deposits. Final polishing is to bring to the surface perfectly smooth and it is advisable to cover the surface with fluoride varnish ("Fluorvarnish").

#### **Package contents and storage**

"Polishpaste-Z +F " is available in plastic jar of 40 g.  
Recommended temperature of storage is +4°C to +24°C.  
Shelf life is 3 years.

### **POLISHPASTE-Z + W**

#### **Paste for whitening and fine polishing of dental enamel**

##### **Indications:**

- final polishing of tooth enamel after removal of dental calculus;
- removal of soft plaque with instruments;
- whitening the tooth enamel.

##### **Composition**

Fine abrasive particles  
Carbamide peroxide  
Kaolin  
Zinc oxide  
Titanium dioxide  
Silicone additives  
Filler  
Flavoring agent

##### **Properties**

The action of "Polishpaste-Z +W" is based on the specific properties of the fine abrasive particles and whitening abilities of carbamide peroxide. Because of these properties "Polishpaste-Z" removes soft dental plaque without damage of the enamel. Combination of aminofluoride with potassium nitrate contributes to the saturation of enamel by fluoride ions and elimination of enamel sensitivity.

"Polishpaste-Z +W" removes soft plaque without damaging the enamel, makes teeth whitening, allows to achieve maximum aesthetic effect.

##### **Recommended use**

Apply to the polishing cup or brush the required amount of "Polishpaste-Z +W". The procedure should be at medium speed without excessive pressure on the surface. Polish until a desired result. After the end of the polishing wash out residual paste with water.

##### **Package contents and storage**

"Polishpaste-Z +W" is available in plastic jar of 40 g.  
Recommended temperature of storage is +4°C to +24°C.  
Shelf life is 3 years.

### SCALING

#### Dental gel for softening and removal of hard dental deposits in complex therapy of periodontal diseases

##### Indications:

- removal of dental calculus in periodontitis;
- dissolution of the children's "green" plaque

##### Composition

Hydrochloric acid  
Potassium iodide  
Polyhydric alcohols  
Thickening agent  
Distilled water  
Aerosil

##### Properties

When periodontal disease gain exposure to loose teeth is contraindicated, so it is expedient to remove the dental calculus from them with special means in the form of gels and pastes without abrasives.

The principle of action of such aids is based on their ability to soften the calculus by dissolving it. The gel comprises coloring components which stains infected tissues. This facilitates conducting visual diagnostics to a dentist.

##### Recommended use

Before the procedure of the removal of dental calculus protect the gums against possible contamination by the material.

Detach the protective cap from the syringe. Attach a cannula to the syringe and apply the gel on the treated area of the tooth. Leave the preparation for 30-40 seconds. Then remove the material from the treated area and rinse with water.

In severe cases the procedure should be repeated two or three times, do not forget about the protection of the gums.

After the end of manipulations separate cannula from the syringe and close it with a protective cap.

**Contraindications:** allergy to iodides.

##### Package contents and storage

The material is available in two plastic syringes by 2,5 ml each. 20 disposable metal cannula – applicators enclosed.

Store in a dry and dark place.

Shelf life is 3 years.

### FLUOREX

#### Caries inhibitory prophylactic fluorine varnish (transparent)

##### Indications:

- after removal of dental plaque, cleaning teeth at professional hygiene;
- *at therapeutic treatment*: caries in stage of a spot, wedge-shaped defects in the treatment of hypersensitivity, after polishing the enamel;
- *at prosthodontic treatment*: to protect the living stump of prepared tooth, the processing of the contact surfaces of adjacent teeth, when fixing clasp structures;
- *at periodontal treatment*: after curettage of periodontal pockets to protect the necks of the teeth, in hypersensitivity of the cervical area;
- *treatment and prevention of dental caries in children*: the preservation of the primary dentition, with pigmented deep fissures of permanent teeth, in the fissures in process of maturation, with immature fissures.

##### Composition and properties

"FLUOREX" is a colorless suspension. Active ingredient is aminofluoride, the percentage of which is balanced for maximum anticaries effect. Aminofluoride (fluorine compound of new generation) has increased activity.

##### Recommended use

First isolate teeth from saliva. Dry isolated teeth by air pistol. On the dried surface of the teeth, apply a thin layer of "Fluor Varnish" by conventional applicators such as microbrush. After 10-15 sec "Fluor Varnish" dries itself. If necessary, it is possible to dry it by compressed air. You can apply a second coat of varnish and dry by air to accelerate drying. Patients should be warned that they should not take solid food for 2 hours, and not to clean the teeth for 12 hours after the procedure. To maintain the anticaries effect the successive coating should be carried out in 3-6 months.

At the time of application the bottle should be tightly closed, to avoid evaporation of the solvent and subsequent drying and thickening of varnish.

Possible precipitation does not affect the physicochemical properties of the material. Shake before use!

##### Package contents and storage

The "Fluor Varnish" is available in bottles by 13 ml.

Store the material in tightly closed bottle in dry and dark place at t from +4°C to +24°C.

Shelf life is 3 years.

### SENSISTAB

#### Remedy for dentin hypersensitivity treatment

##### Indications:

- Hypersensitivity dentin in the cervical area;
- Before placing temporary crowns;
- After preventive teeth cleaning;
- During and after tooth whitening;
- Periodontal surgery.

##### Properties

Material "Sensistab" is not toxic, will not discolor teeth, easy to apply and biologically compatible with soft tissues.

The preparation allows to seal the dentinal tubules and eliminate dentine sensitivity in one visit. No cleaning of the tooth surface, no rinsing is required.

"Sensistab" reacts with the hydroxyapatite of the tooth to form small granules of calcium, which precipitate in a few seconds inside the dentinal tubules and on the surface of the living dentin.

Acid-precipitated crystals form a biological and chemical complex with the base of the living dentin.

##### Recommended use

Apply 1-2 drops of "Sensistab" from the dropper bottle to the pad which goes in complete. Using microbrush or cotton balls, apply "Sensistab" on the treated area of the tooth. The liquid may be applied on the dry and on the wet surface as well. After applying it leave for 10-15 sec. Then carefully evaporate "Sensistab" from the treated surface by air. After drying white-matte coating of calcium crystals can be observed.

##### Package contents and storage

"Sensistab" is available as a liquid in dropper bottle of 8 g.

Store at t from +10°C to +30 °C.

During transportation and storage at low temperature a crystalline precipitate may form. To dissolve it placed the bottle to warm place with t of +20°C. In order to better dissolve the precipitate shake the bottle.

Shelf life is 3 years.

### SENSISTAB

#### Remedy for dentin hypersensitivity treatment

##### Indications:

- Hypersensitivity dentin in the cervical area;
- Before placing temporary crowns;
- After preventive teeth cleaning;
- During and after tooth whitening;
- Periodontal surgery.

##### Properties

Material "Sensistab" is not toxic, will not discolor teeth, easy to apply and biologically compatible with soft tissues.

The preparation allows to seal the dentinal tubules and eliminate dentine sensitivity in one visit. No cleaning of the tooth surface, no rinsing is required.

Material "Sensistab" reacts with the hydroxyapatite of the tooth to form small granules of calcium, which precipitate in a few seconds inside the dentinal tubules and on the surface of the living dentin.

Acid-precipitated crystals form a biological and chemical complex with the base of the living dentin.

##### Recommended use

Open the box, detach the protective cap from the syringe. Attach a cannula to the syringe and apply the material "Sensistab" on the treated area of the tooth. The material may be applied on the dry and on the wet surface as well. Leave the preparation for 30-40 seconds. Then remove material "Sensistab" from the treated area. After drying white-matte coating of calcium crystals can be observed.

##### Package contents and storage

The material is available in two syringes by 2,5 ml each + 20 cannulas.

Store at t from +4°C to +24 ° C.

Shelf life is 3 years.

**CARIES INDICATOR**

**Remedy for identification of carious dentin**

**Indications**

"Caries indicator" allows to determine easily carious and demineralized dentin layer by painting in bright red color of the outer layers of carious dentin.

"Caries indicator" does not stain normal dentin and healthy enamel.

**Composition and properties**

Propanediol  
Distilled water  
Sodium DDC  
Eosin-B

"Caries indicator" is connected with the denaturated collagen contained in carious dentine, and stain it within 10 seconds.

**Recommended use**

After the opening of carious cavity and pulpectomy clean and rinse the treatment area thoroughly with water.

Dry treated area by air flow. Excess moisture will prevent effective process of staining. Apply a drop of "Caries indicator" from the dropper bottle to the pad which goes in complete. Using microbrush or cotton balls apply "Caries indicator" to the cavity for 10 seconds. Wash the treated area with water, at the same time applying a saliva ejector, and then dry the cavity with an air jet. Remove red colored infected dentin. Repeat the procedure until the dentin is no longer painted, indicating the absence of infected sites.

When all the colored material will be removed, repeat the process with a fresh drop of "Caries indicator". Upon completion of the procedure, rinse and dry the cavity. After that, proceed to further manipulation.

**Package contents and storage**

"Caries indicator" is available in dropper bottle of 8 g.

Store at t from +4°C to +24 ° C.

Shelf life is 3 years.

Protect from direct sunlight.

**CARIES INDICATOR**

**Remedy for identification of carious dentin**

**Indications**

"Caries indicator" allows to determine easily carious and demineralized dentin layer by painting in bright red color of the outer layers of carious dentin.

"Caries indicator" does not stain normal dentin and healthy enamel.

**Composition and properties**

Propanediol  
Sodium DDC  
Eosin-B  
Tint agent  
Gelling agent  
Distilled water

"Caries indicator" is connected with the denaturated collagen contained in carious dentine, and stain it within 10 seconds.

**Recommended use**

Open the carious cavity with the bur. Clean and rinse the treatment area thoroughly with water. Dry treated area by air flow, since excess moisture will prevent effective process of staining. After that open the box, detach the protective cap from the syringe. Attach a cannula to the syringe and apply the material "Caries indicator " on the treated area of the tooth for no longer that 10-12 seconds. Wash the treated area with water, at the same time applying a saliva ejector, and then dry the cavity with an air jet. Remove red colored infected dentin with bur or dental excavator. Repeat the procedure until the dentin is no longer painted, indicating the absence of infected sites.

When all the colored material will be removed, repeat the process with a fresh drop of "Caries indicator". Upon completion of the procedure, rinse and dry the cavity. After that, proceed to further manipulation.

**Package contents and storage**

"Caries indicator" is available in two plastic syringes by 2,5 ml each. 20 disposable metal cannula – applicators enclosed.

Store at t from +4°C to +24 °C.

Shelf life is 3 years.



### TRAVEX-37

#### gel for the etching of enamel and dentin

"Travex – 37" is an etching gel for enamel and dentine with optimal content of a high-quality 37% phosphoric acid. Specially designed viscosity of gel provides an ultimate working characteristic. Gel has a good adherence to the application zone without drying up and spreading on the surface.

#### Recommended use

Remove the protective cap from the syringe and attach the cannula for the application there. Apply by extruding the gel to the treatment area of enamel and leave for 20-25 seconds. Remove the gel from the treated area by abundant irrigation of water, using saliva ejectors and vacuum aspirator. Dry to semi-dry state. The treated surface is ready for further manipulation.

**Warning!** Since the gel contains phosphoric acid - avoid contact with mucous tissues and eyes. In case of contact with the mucosa, rinse with large volume of water.

#### Package contents and storage

Material is available in three syringes by 3,5 ml each. 20 disposable metal cannula – applicators enclosed.

Store in a cool dry place.

Store at t from +4°C to +24 ° C.

Shelf life is 3 years.

### EPIFIL SPRAY

#### Disinfection remedy – skin antiseptic

*Instructions for use developed by  
FBUN CRI of Epidemiology, Moscow;  
LLC "NKF OMEGA-DENT", Russia.*

The remedy "Epifil Spray" is intended for professional use in dental offices, as well as in other organizations, have the right to engage in the activities of the disinfection.

#### 1. Common information

1.1. Disinfectant - skin antiseptic "Epifil Spray" is a ready-to-use preparation in the form of a clear liquid of light blue shade with mint aroma. pH is  $7,0 \pm 1,0$ .

As active substances comprises: isopropyl alcohol -  $30,0 \pm 1,5\%$ ; chlorhexidine digluconate -  $0,5 \pm 0,05\%$ , as well as moisturizing, softening and toning the skin additives, flavoring "Mint", other technological and functional components.

Shelf-life vehicles - 3 years from date of production in unopened manufacturer's packing under the recommended conditions of storage.

1.2. Remedy "Epifil Spray" has bactericidal activity against Gram-negative and Gram-positive bacteria, tuberculocidal activity (tested on a culture test strain *Mycobacterium B5*), fungicidal (including pathogenic fungi *Candida* and genus *Trichophyton*).

The preparation has sustained antibacterial activity for 1 hour on an unprotected skin of hands.

1.3. The parameters of acute toxicity, according to the classification of GOST 12.1.007-76, remedy "Epifil Spray" refers to class 4 of low harmful compounds; when applied to the skin and into the stomach does not have a local irritant, skin-resorptive and sensitizing actions in the recommended conditions of use. Applying on the scarified skin does not complicate the healing of wounds caused artificially. Agent causes slight irritation of the mucous tissues of the eyes when making the conjunctival sac. Inhalation risks in application is of low possibility.

1.4. Renedy "Epifil Spray" is intended as a skin antiseptic for:

- sanitize the hands of medical and support staff in the institutions of dental profile, medical and health care organizations.

#### 2. Recommended use

Disinfectant - skin antiseptic "Epifil Spray" is a ready-to-use preparation.

Treatment of skin surfaces of hands of medical staff and assistants in the institutions of dental profile should take into account the requirements of SanPiN 2.1.3.2630 - 10 "Sanitary requirements for organizations engaged in medical activities" (18.05.2010 № 58).

2.1. Hygiene treatment of hands: single treatment is carried out. Agent in an amount of 2-3 ml is applied to the hands by irrigation (10-15 clicks on the head of the airbrush) and rubbed into the skin to dry completely (at least 20-30 seconds.), carefully treating periungual and interdigital areas.

#### 3. Precautions

3.1. Use only for external application in accordance with the method of application. Do not swallow!

3.2. Do not spray to wounds and mucous tissues.

3.3. Avoid contact with eyes.

3.4. The spray is highly flammable! Avoid contact with open flame and heating devices. Do not smoke when use. Avoid contact with oxidizing agents.

3.5. Using the spray after the expiry date is prohibited.

3.6. Keep the spray out of reach of children, away from food and medicines.

3.7. Spray should be applied directly from the original manufacturer's packaging. Dilution with water or other solvents, as well as mixing the spray with other products is not allowed.

3.8. In case of accidental release of a large amount of the agent fill it with absorbent incombustible material (sand, silica gel, etc..) and then collect the rest of the material in a suitable container for subsequent disposal. Detergent residues should be washed off from surfaces with plenty of water.

3.9. *Environmental Precautions:* Do not allow undiluted funds into drains and fishery ponds.

### 4. First aid measures

4.1. In case of accidental contact with eyes, they should be rinsed with plenty of running water, in case of hyperemia drip 20-30% solution of sodium sulfacyl. If necessary, consult an eye specialist.

4.2. In case of accidental swallowing, rinse a stomach thoroughly with water at room temperature. Then drink a few glasses of water with the addition of the adsorbent (eg, 10-15 crushed tablets of activated charcoal in a glass of water). If necessary, consult a doctor.

### 5. Packaging, transportation and storage

5.1. The product "Epifil spray" is available in polyethylene bottles, closed by the lid with the spray head and the cap, with a volume of 200±10 ml, according to the technical documentation of the manufacturer.

5.2. Transportation of disinfectant - skin antiseptic "Epifil spray" is implemented by all types of transport in accordance with the rules for the goods containing alcohol (flammable), valid for these types of transport (GOST 19433-88).

5.3. Disinfectant - skin antiseptic "Epifil spray" is stored in accordance with the rules for storage of flammable liquids away from heat sources and sunlight, at a temperature of -5°C to +30°C in a covered storage area, away from drugs, food, out of the reach of children.

### TRIFLUOR

#### Material for deep fluorination of enamel and dentin

##### Indications:

- prevention and treatment of all types of dental caries;
- treatment of early caries (when only enamel is damaged and preparation of the tooth is not indicated);
- hypersensitivity of the enamel;
- prevention of dental caries when using orthodontic appliances;
- treatment of non-cariou lesions of the enamel (erosion, wedge-shaped defects);
- treating the sensitive areas after teeth whitening;
- sealing of fissures (without preparation of the enamels);
- treatment of periodontitis;
- hypersensitivity in the cervical area of the tooth;
- sealing of enamel after removal of dental plaque and professional teeth hygiene.

##### Composition and properties

###### *Liquid:*

Fluoride silicate magnesium and fluoride copper  
magnesium complexes ( $\text{MgSiF}_6$  and  $\text{CuSiF}_6$ ).

###### *Suspension:*

Methylcellulose  
Calcium hydroxide

In deep fluorination with "Trifluor" in surface pores of the tooth in the reaction of liquid with suspension decomposition of complex salts happens with the formation of crystals of calcium fluoride ( $\text{CaF}_2$ ), magnesium fluoride ( $\text{MgF}_2$ ), hydroxylfluoride copper ( $\text{Cu}(\text{OH})\text{F}$ ), enclosed in the gel of silicic acid, which protects them from leaching. The presence of fluoride ions in the enamel increases the concentration of fluoroapatite hydroxylfluoroapatite, which increase the resistance of the surface of the tooth to acids thus suppressed demineralization process. Besides a decrease in the pH level in a biological film: the fluorine ions react with the  $\text{H}^+$  ions to form hydrogen fluoride (HF), suppressing the metabolism of bacteria. HF can easily penetrate through the cell membranes into the cells of bacteria and again decomposed into  $\text{F}^-$  ions and  $\text{H}^+$ . Ions  $\text{F}^-$  inhibit bacterial enzymes in biological film, which reduces the rate of its grow. Copper has a bactericidal effect by inhibiting the formation of microbial biofilm on the enamel surface. The resulting crystals of magnesium fluoride and calcium fluoride sized about 50 Angstroms seal the spaces between the hydroxyapatite crystals in enamel prisms (100 Angstroms), which prevents the formation of caries.

"Trifluor", opposed to simple fluorides, has no toxic effect.

##### Recommended use

Remove dental plaque, clean surface to be treated in a conventional manner using common instruments, rinse with water, dry with an air jet and drench a cotton swab soaked in liquid "Trifluor". After 1-2 min remove excess of liquid with dry tampon and treat the surface with the suspension without preliminary rinsing (shake the bottle before use), then rinse with water after one minute.

It is advisable to repeat the procedure in 1-2 weeks to improve the result. After repeating the procedure twice next time the procedure can be repeated in 1-2 times per year.

##### Package contents and storage

Material is available in bottles of 10 ml liquid and 10 ml of suspension.

Store at t from  $+5^\circ\text{C}$  to  $+25^\circ\text{C}$ .

Shelf life is 3 years.

### **Chair-side system for professional whitening (bleaching) of dental enamel**

#### **Indications:**

- removal of stains and discoloration of crowns of the teeth caused by natural, innate or pharmacological reasons;
- treatment with tetracycline stains in teeth with hypoplasia;
- whitening of teeth with lost white color before placing composites, veneers and crowns;
- bleaching pulpless teeth.

#### **Advantages**

The benefits of chair-side bleaching include shorter time of procedures and immediate results. These are the main reasons why dentists and patients give more preferences to clinical whitening than to home procedures. In addition, many patients have discomfort wearing bleaching trays.

#### **Properties and composition**

The main component is the whitening gel is 35% carbamide peroxide. The gel also contains potassium nitrate and sodium fluoride in order to reduce teeth sensitivity. When the gel is applied to the surface of tooth enamel carbamide peroxide is activated by releasing atomic oxygen which easily penetrates through the enamel and dentin and oxidizes pigmented spots.

The gel has a high viscosity and may be used in certain areas of the teeth which require a longer bleaching time. Such a controlled application of bleaching minimizes the possibility of burns of soft tissue. The gel is easily soluble in water, so easily washed away from the surface of the teeth or tray.

#### **Preparation procedures and method of use**

Before you start whitening procedures all the teeth and soft tissues are to be examined. It is necessary to estimate the thickness and density of the enamel, present degree of gingival recession, the existing hypersensitivity to bleaching, the degree of transparency of the teeth. The patient's teeth should not be damaged by caries. Successful pre-whitening procedures include the assessment of the color of tooth enamel, the type and nature of the staining of the teeth.

After the end of the preparatory procedures we should proceed with cleaning the teeth. After that, give the patient rinse mouth. Then take care of the protection of soft tissues and dry the gums in the spot where you plan applying the supplied light-curing protective material - "liquid rubber dam". Open the black syringe with "liquid rubber dam" and put on the cannula. The protective layer of "liquid rubber dam" should cover the gingival margin of a width not less than 3-4 mm. Apply a material so that the gingival sulcus and interdental spaces dental hard tissue adjacent to the gingiva, were isolated.

Then conduct polymerization of the material within 30-40 sec. After the soft tissues are protected, it is possible to start the main procedure of bleaching.

Apply the whitening gel evenly on the entire surface of teeth prepared for whitening. Layer thickness should be 1-2 mm. The exposure time of the whitening gel may be from 7 to 15 minutes. It is possible to accelerate the whitening process by lighting with a special lamp for bleaching of any kind. Light polymerization by UV lamps also accelerates the bleaching process, in that case each tooth should be illuminated within 1 min. Then remove the gel with a spatula. Inspect the treated surface and determine whether the degree of whitening is sufficient. If necessary, repeat the procedure. You can repeat the applying bleaching gel up to 6 times per session, depending on the degree and type of

## WHITENING MATERIALS

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coloring, if the patient is not experiencing increasing sensitivity. At the end of the session, before removing the protection of the gums, whitening gel is removed mechanically, and then washed off with water. Next, you should apply the included mousse to remove sensitivity. Mousse is applied to 5-10 min, then rinse it with water. The patient is advised to rinse his or her mouth. Within 24 hours after bleaching the patient must comply with the so-called "white diet", warning coloration of the teeth.

During internal bleaching of pulpless teeth root canal must be tightly obturated. The root canal obturated at the level of the neck of the tooth should be isolated with cement with the thickness of 1-3 mm. Then the remaining part of the root canal and the wellhead tooth cavity is filled by bleaching gel. The duration of the whitening procedure should be determined depending on the condition of the tooth pigmentation and its state. If pigmentation is small it is enough to apply a gel for 10-15 min. With considerable pigmentation it is necessary to seal the tooth cavity by quickly cured temporary dressing for 24 hours. After 24 hours, remove the temporary and wash the cavity with water. If necessary, repeat the procedure.

### **Package contents and storage**

Whitening gel is available in two syringes by 3 ml each.

There is "liquid rubber dam" in complete – 1 syringe × 1,5 ml.

Mousse for lowering the hypersensitivity – 1 syringe × 3 ml, 10 disposable applicator-cannulas.

Store at dark and dry place at t of +4°C.

Shelf life is 12 months.

## OUR PARTNERS

RUSSIA		
Abakan	"Contact-Khakasia"	(3902) 22-80-45
Arkhangelsk	"Inmed"	(8182)63-31-52, 63-31-74, 63-32-02
Barnaul	"Siberian dental company"	(3852)200-781, 200-782
Belgorod	"TD "VladMiVa"	(4722)200-555
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Vladikavkas	"Intercom"	(8672) 54-27-72
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Omsk	"OmDent"	(3812) 94-80-55, 94-80-39
Orenburg	"Orendent"	(3532) 35-86-99



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Perm	IP "Sidorov"	(342) 238-36-27, 244-72-71
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Samara	"Inversia"	(846)279-24-39, 233-25-32, 233-23-07
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St. Petersburg	"Medicine St. Petersburg "	(812) 529-91-01, 325-77-97
St. Petersburg	"Prometey"	(812) 605-00-07
St. Petersburg	"Firma "Medexpress"	(812) 326-29-17,567-19-77
St. Petersburg	"EKUSMED"	(812) 648-44-08
Saratov	TD "999 melochey"	(8452) 783-120,783-176
Smolensk	"Denta"	(4812)649-666
Sochi	"STOMAKS"	(8622) 62-26-10, 37-00-76
Stavropol	"Status-ST"	(8652) 37-20-84, 34-87-53
Stavropol	"Medicine Dent"	(8652) 73-57-67
Stavropol	IP Kopylova T.A.	(8652) 28-00-46
Surgut	"MEDSERVICE"	(3462) 24-11-81, 24-06-09
Tyumen	"Bas-Dent"	(3452) 593-564
Ulyanovsk	"Rocada Med-4"	(8422) 44-03-64
Ufa	"Angelika"	(3472) 33-75-75, 33-05-81, 33-38-48
Ufa	"ORTHODENT"	(3472) 23-21-23

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Yaroslavl	IP Nosov A.V.	(4852) 32-83-84
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Baku	"Stoma"	(1099412) 447-45-38, ф. 596-14-13
Baku	"Meridian"	(99412) 440-31-08
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Yerevan	"Levadent"	(103741) 45-54-56
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Minsk	"UP Yubiti"	(1037517) 245-25-11
Minsk	NPOOO "SYSTEM"	(1037517) 283-16-61
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<b>Georgia</b>		
Tbilisi	"Dental Georgia"	(1099532) 96-92-15
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<b>Kazakhstan</b>		
Aktobe	"Intermedservice"	(8432) 636-555, 8-905-310-53-54, 8-917-381-69-85
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