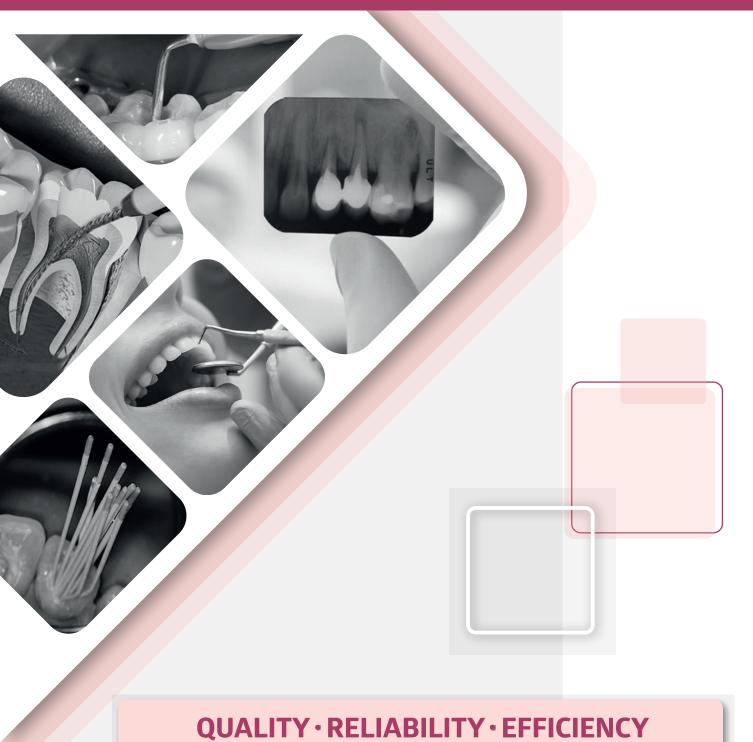




# **MATERIALS**

# FOR ENDODONTIC TREATMENT



www.vladmiva.ru



### **DEAR COLLEAGUES!**

Endodontic treatment is now one of the most evolving areas of dentistry. Materials, tools and equipment are being improved, new treatment methods are being developed, which can significantly improve the quality and reliability of endodontic therapy.

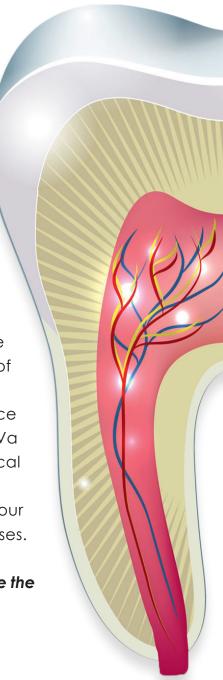
VladMiVa is the largest manufacturer of dental materials in Russia. For more than 25 years VladMiVa has been developing and producing materials for use at each stage of endodontic treatment of both permanent and temporary teeth.

A wide range of endodontic materials offered by VladMiVa allows the dentist to provide qualified care to the patient with any type of tooth pulp pathology or in case of inflammatory damage of the periapical periodontium.

Convenient packaging, high quality and reasonable price make it possible to use the materials produced by VladMiVa not only by private practitioners, but also by municipal medical and preventive treatment facilities.

We thank all the authors, for writing articles about our products, for providing pictures and comments on clinical cases.

Quality, reliability and efficiency of VladMiVa materials are the key to the success of endodontic treatment!





# MATERIALS FOR ENDODONTIC TREATMENT



UDC 616.314-74 LBC 56.612.1 M34

M34 Materials for endodontic treatment. Quality. Reliability. Efficiency. - Belgorod: VladMiVa, 2020. - 42 p.: ill., col. illl.

Authors: Eliseyeva M.V., Chuyev V.V., Bondar E.S., Chuyev V.P., Dorokhova V.D.

The catalog presents a wide range of manufactured endodontic products. Brief description and main material forms are presented, as well as an algorithm for their use in endodontic treatment.

The publication is intended to inform potential consumers of medical products - dentists, students of dental faculties of medical universities, as well as VladMiVa managers and trade representatives.

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### MATERIALS FOR ENDODONTIC TREATMENT

### **PULP DEVITALIZATION**

DEVIT-P DEVIT-A

DEVIT-S PULPEVIT №1
DEVIT-ARS PULPEVIT №3

**PULPODENT** 

### **ROOT CANAL THERAPY**

BELODEZ (sodium hypochlorite) ALUMOGEL

BELODEZ ACTIVATOR ENDOGY №4
ENDOZHY №2 (EDTA) CAPRAMIN

SOLVADENT №3 (citric acid)

COLOR TEST №4

ENDOGEL №1 (EDTA)

ENDOZHY №1

ENDOGEL №2 (EDTA + peroxide)

BELAGEL-O ENDO

BELSOL №2 (chlorhexidine 2%)

SOLVADENT №1

SOLVADENT №2

### TREATMENT AND THERAPY OF INFECTED CANALS

CRESODENT VLADMIVA liquid CALCEVIT (calcium hydroxide)

PULPEVIT №2 CUPRODENT ENDOZHY №3 APEXDENT CALCESEPT

BELAIOD PHOSPHADENT BIO

**IODENT** non-hardening

### **ROOT CANAL PERMANENT OBTURATION**

IODENT hardening TRIOXIDENT CRESODENT VLADMIVA paste STIODENT

PULPODENT long-hardening PHOSPHADENT

RESODENT VLADMIVA VIEDENT
EODENT long-hardening SILDENT
TIEDENT TRICREDENT

OXIDENT COMPOCEM-ENDO

**ARMODENT** Set



# CLASSIFICATION AND BRIEF DESCRIPTION OF ENDODONTIC MATERIALS

Name	Active Ingredients	Effect
	PULP DEVITALIZATION	
Devit-P	paraform, lidocaine, chlorophenol, camphor	al an 24 a Patra an
Devit-S	paraform, lidocaine	devitalizing, anesthetic
Devit-ARS	arsenic anhydride, lidocaine, eugenol	
Devit-A	lidocaine, chlorophenol, eugenol, camphor	anesthetic,
Pulpevit №1	lidocaine, chlorophenol, cresol	antiseptic
Pulpevit №3	formocresol	mummifying,
Pulpodent	polyoxymethylene, iodoform	antiseptic

	ROOT CANAL THERAPY	
Belodez	sodium hypochlorite	purifying, antiseptic
Belodez-activator	surfactant mixture	antiseptic
EndoZhy №2	EDTA	
Solvadent №3	lemon acid	purifying,
EndoGel №1	EDTA, carbamide peroxide	complexing
EndoGel №2	EDTA	
BelSol Nº2	chlorhexidine 2%	antiseptic
EndoZhy №2+	EDTA	purifying
Alumogel	aluminum chloride, cetrimide	
EndoZhy №4	aluminum chloride	hemostatic
Capramin	aluminum chloride or ferrous sulfate	
Color-test Nº4	fuchsin	diagnostic
EndoZhy №1	solvent mixture	drying
Belagel-O Endo	carbamide peroxide	antiseptic + whitening
Solvadent №1	organic solvent	solvent
Solvadent №2	gutta-percha solvent	201AG111

Name	Active Ingredients	Effect	
TF	TREATMENT AND THERAPY OF INFECTED CANALS		
Cresodent liquid	camphor, chlorophenol		
Pulpevit №2	phenol, eugenol, formaldehyde		
EndoZhy №3	glutaric anhydride	anticontic	
EndAsept	metronidazole, chlorhexidine	antiseptic	
Belaiod	iodine		
lodent non-hardening	iodoform, chlorophenol, camphor		
Calcevit powder	calcium hydroxide		
Cuprodent	copper-calcium hydroxide	antiseptic,	
Apexdent	calcium hydroxide, iodoform	anti-inflammatory,	
Calcesept	copper-calcium hydroxide	osteotropic	
Phosphadent Bio	calcium oxide, calcium phosphate		

ROOT CANAL PERMANENT OBTURATION		
lodent hardening	iodoform, chlorophenol, camphor	
Cresodent paste	camphor, chlorophenol	
Pulpodent	iodoform, phenol, formaldehyde, eugenol,	antiseptic
long-hardening	dexamethasone	
Resodent	resorcinol, formaldehyde	
<b>Eodent</b> long-hardening	zinc oxide, eugenol, hydroxyapatite	antiseptic, osteotropic
Tiedent	zinc oxide, eugenol, thymol-iodide, dexamethasone, hydrocortisone acetate	antiseptic
Oxident	calcium hydroxide, salicylate ether	antiseptic,
Trioxident	oxides of calcium, silicon, aluminum (MTA),	osteotropic
	disalicylate resin	
Stiodent	aluminofluorosilicate glass,	antiseptic
	polyacrylic acid	GI III O PII O
Phosphadent	calcium hydroxide, calcium phosphates,	osteotropic
·	calcium fluoride	· ·
Viedent	calcium hydroxide, epoxy resin	
Sildent	iodoform, hydroxyapatite, silicone base	antiseptic
Tricredent	bakelite resin	
Compocem-Endo	hydroxyapatite, methacrylic oligomers	
Armodent	fiberglass pins, composite cement	tooth crown reinforcement after endodontic treatment



### PEDODONTIC DEVITALIZING PASTE

### **DEVIT-P**

# material for pediatric dentistry



PACKAGE	NET WEIGHT	CODE
Paste	3 g	00000002213

#### ANALOGUES FOR USE

«Caustinerf pedodontique» - «Septodont», France

### **PURPOSE**

Crown pulp devitalization in the treatment of temporary teeth pulpitis by devital amputation.

### **ACTIVE INGREDIENTS**

- paraformaldehyde;
- lidocaine hydrochloride;
- chlorphenol;
- · camphor;
- menthol.

### **ADVANTAGES**

- painless crown pulp devitalization;
- mummification and sterilization of root pulp;
- FREE OF ARSENOUS ACID ANHYDRIDE.

### HIGHLY ACTIVE DEVITALIZING PASTE

### **DEVIT-S**



PACKAGE	NET WEIGHT	CODE
Paste	3 g	0000000742
Paste	6,5 g	00000039626

### ANALOGUES FOR USE

«Devitec Arsenic Free» - «PD», Switzerland «Depulpin» - «Voco», Germany «Caustinerf forte» - «Septodont», France

### **PURPOSE**

- pulp devitalization in the treatment of pulpitis by devital extirpation or amputation;
- additional agent for devitalization during the repeated procedure after application of arsenic-containing pastes.

### **ACTIVE INGREDIENTS**

- paraformaldehyde;
- lidocaine hydrochloride;
- paste-forming agent and fibrous filler.

- painless crown pulp devitalization;
- durable effect;
- FREE OF ARSENOUS ACID ANHYDRIDE.

### **ARSENIC PASTE**

### **DEVIT-ARS**

### **PURPOSE**

Pulp devitalization in pulpitis treatment by devital extirpation.

### **ACTIVE INGREDIENTS**

- arsenous acid anhydride (30%);
- lidocaine hydrochloride;
- eugenol.

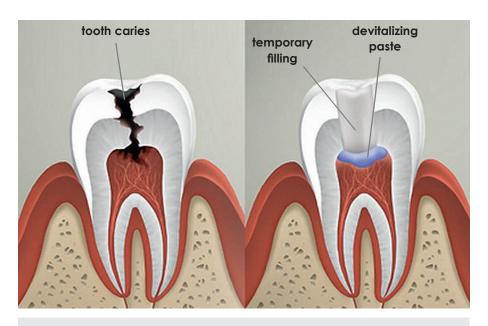
### **ADVANTAGES**

Rapid and painless devitalization.



PACKAGE	NET WEIGHT	CODE
Paste	3 g	00000002330
Paste	6,5 g	00000007486
Unidoses	4 mg x 100 pcs	00000002142

ANALOGUES FOR USE «Canstinerf arsenical» - «Septodont», France





### **ANESTHETIC PASTE**

### **DEVIT-A**



PACKAGE	NET WEIGHT	CODE
Paste	3 g	0000003933

ANALOGUES FOR USE

«Pulparthrol» - «Pierre Rolland», France

### **PURPOSE**

Anesthetic and antiseptic compress in cases of severe painful reactions in the treatment of tooth caries and its complications.

### **ACTIVE INGREDIENTS**

- lidocaine hydrochloride;
- chlorophenol;
- eugenol;
- camphor.

### **ADVANTAGES**

- rapid and prolonged analgesic effect;
- powerful antiseptic effect.

### **ANALGETIC SOLUTION**

### **PULPEVIT Nº1**



PACKAGE	NET WEIGHT	CODE
Liquid №1	15 ml	00000002153

**ANALOGUES FOR USE**«Pulperyl» - «Septodont», France
«Chlorbutanol» - «PD», Switzerland

### **PURPOSE**

Analgesic and antiseptic solution for use in the treatment of pulpitis and periodontitis.

### **ACTIVE INGREDIENTS**

- lidocaine hydrochloride;
- · chlorophenol;
- cresol.

- rapid analgesic effect;
- antiseptic effect;
- no tissue irritation.

### LIQUID FOR ROOT PULP MUMMIFICATION

### **PULPEVIT Nº3**

#### **PURPOSE**

Mummification of root pulp in the treatment of complicated tooth caries of milk teeth by vital amputation.

### **ACTIVE INGREDIENTS**

- formaldehyde (19%);
- cresol (35%).

### **ADVANTAGES**

- partial or complete mummification of the root pulp;
- bactericidal effect.



PACKAGE	NET WEIGHT	CODE
Liquid №3	15 ml	00000002155

ANALOGUES FOR USE «Tricresol&Formaline» - «PD», Switzerland

### **Clinical Use Experience**

«Positive result of treatment with the use of the **«Pulpevit» № 3** drug (formocresol) was observed in 95.0 ± 2.7% of patients. Efficacy of **«Pulpodent»** and Pulpotec are 95% and 96% respectively.»

Source: Shevchenko O.L., Antonova A.A., Solomenko N.I. Experience of the modern drugs use for the treatment of milk teeth pulpitis in children // Endodontics today. - 2014 .-- P. 20-22. ISSN: 1683-2981

### MATERIAL FOR ROOT PULP PRESERVATION

### **PULPODENT**

### **PURPOSE**

Treatment of pulpitis of milk and permanent vital teeth by pulpotomy.

#### **ACTIVE INGREDIENTS**

- **Powder**: zinc oxide, iodoform, polyoxymethylene;
- Liquid: formaldehyde, phenol, eugenol, dexamethasone.

### **ADVANTAGES**

- aseptic scarring of the pulp stump;
- maintaining the viability of the root pulp.



PACKAGE	NET WEIGHT	CODE
Powder Liquid	25 g 15 ml	0000005709

ANALOGUES FOR USE «Pulpotec» - «PD», Switzerland



### STABILIZED SODIUM HYPOCHLORITE SOLUTION

### **BELODEZ**



PACKAGE	NET WEIGHT	CODE
Liquid (3%)	30 ml 100 ml 250 ml 500 ml 1 l	0000003078 0000003083 00000015605 00000065386 00000065391
Liquid (5,2%)	30 ml 100 ml 250 ml	0000001067 0000001358 00000025980
Liquid (10%)	30 ml	00000005923
Gel (3%)	3 g	00000001571

### ANALOGUES FOR USE «Parcan» - «Septodont», France







#### **PURPOSE**

Drug treatment of root canals in the treatment of pulpitis and periodontitis.

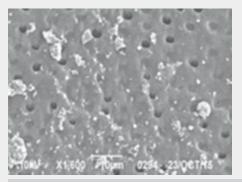
### **ACTIVE INGREDIENTS**

Sodium hypochlorite (3%, 5,2%, 10%).

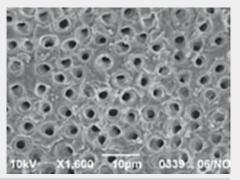
### **ADVANTAGES**

- high antibacterial activity;
- ability to dissolve organic dentine matrix and pulp tissue residues;
- hemostatic effect;
- whitening properties;
- efficient cleaning and expansion of canals during combined treatment with EDTA-based materials («EndoZhy» №2 and «EndoGel»);
- increased efficiency with additional activation.

# Demonstration of improvement of root canal cleaning quality when activating the «Belodez» 3% solution with ultrasound



SEM of the removed tooth section treated with «Belodez» 3% material at x1600 magnification



SEM of the removed tooth section treated with «Belodez» 3% material with ultrasound activation at x1600 magnification

Source: L. Y.Orekhova, T.V. Porkhun, V.Y. Vashneva, E. A. Rubezhova Application of ultrasound in endodontics// Stomatologist 3-2017

### LIQUID FOR IRRIGANTS MODIFICATION

### **BELODEZ-activator**

### **PURPOSE**

Lowering the surface tension of root canal irrigation agents.

### **ACTIVE INGREDIENTS**

Surfactant mixture.

- effective reduction of the surface tension of sodium hypochlorite solutions;
- active foaming for better removal of dentine sawdust and organic residues from the root canal system;
- use in combination with all endodontic irrigation agents to increase their wetting capacity.



PACKAGE	NET WEIGHT	CODE
Liquid 0,4% SAS	30 ml	00000065392
·	100 ml	0000000000
	250 ml	0000000000
	500 ml	00000066038
	11	00000066037
Liquid-concentrate	5 ml	00000066035
2,0% SAS	10 ml	00000066036
	20 ml	00000066039



### LIQUIDS FOR CANAL EXPANSION

### ENDOZHY №2



PACKAGE	NET WEIGHT	CODE
Liquid №2	15 ml 100 ml 250 ml	0000003520 0000005540 00000025800

#### **ANALOGUES FOR USE**

«Largal Ultra» - «Septodont», France «Edetat Solution» - «Pierre Rolland», France

### **PURPOSE**

Identification of root canal orifice, their expansion and purification.

### **ACTIVE INGREDIENTS**

- EDTA salts (17%);
- centimonium bromide (SAS).

### **ADVANTAGES**

- decalcification and softening of parietal dentin to facilitate instrumental processing;
- use in the process of instrumental processing of canals or between visits with highly calcified and obliterated root canals;
- effective penetration into the root canal system and the foaming due to reduced surface tension;
- complete removal of the lubricated layer during combined treatment with sodium hypochlorite solution («Belodez»).

### **SOLVADENT Nº3**



PACKAGE	NET WEIGHT	CODE
Liquid №3	15 ml 100 ml	00000038677 00000038678

#### **PURPOSE**

Washing the root canals to remove the smear layer formed during the canal mechanical treatment.

#### **ACTIVE INGREDIENTS**

Lemon acid (40%).

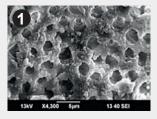
### **ADVANTAGES**

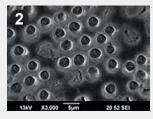
Completely removes the remains of the smear layerfrom the canal sides, revealing the dentinal tubules, contributing to better penetration of the sealant.

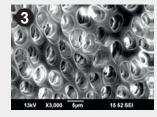
### **ANALOGUES FOR USE**

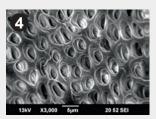
«Citric Acid» - «Cerkamed», Poland

### Removal of the smear layer according to various protocols









- 1. Root canal irrigation with «Belodez» 3%.
- 2. Root canal therapy with «EndoZhy» №2 and «Belodez» 3% materials.
- 3. Double processing with materials «EndoZhy» №2 and «Belodez» 3%.
- 4. Double processing with materials «Solvadent» №3 and «Belodez» 3%.

Source: D.V. Sorokoumova, K.A. Lapteva, D.S. Shabalina, D.V. Kiseleva, I.A. Gottman. Evaluation of the effectiveness of the use of various protocols for the removal of the smeared layer at the stage of final irrigation of the root canal // Bulletin of the Ural Medical Academic Science, 2018, volume 15, №5

### **EDTA BASED GEL SET (15%)**

### **ENDOGEL**



#### **PURPOSE**

Chemical and mechanical expansion, purification and antiseptic treatment of root canals.

PACKAGE	NET WEIGHT	CODE
Gel №1	5 ml 20 g	00000002156 00000002157
Gel №2	3 ml 9 g 20 g	0000002158 0000004435 00000002159

### **ACTIVE INGREDIENTS**

	EDTA	carbamide peroxide	gel base
Gel №1	+	_	+
Gel №2	+	+	+

#### ANALOGUES FOR USE

«RC-Prep» - «Premien», USA «EDTA 17%» gel. - «PD», Switzerland «Canal-plus» - «Septodont», France

### **ADVANTAGES**

- complex (EDTA) interaction with dentin calcium loosens the structure of hard tooth tissues;
- lubrication of endodontic instruments facilitates their passage in the root canals;
- hydrophilicity of the gel base makes it easy to wash out material from the canals;
- canal processing in the «EndoGel» «Belodez» 3%
   - «EndoGel» order leads to the complete removal
   of the smeared layer and to the opening of the
   dentinal tubules;
- alternation of gel № 2 and sodium hypochlorite solution («Belodez» 3%) leads to the active release of atomic oxygen, which has a bactericidal effect, foaming, contributing to removal of infected pulp tissue and dentine debris.

## Foaming using «Belodez» 3% and «EndoGel» №2 materials



 $NaOCI+H_2O_2 \rightarrow NaCI+H_2O+2O$ 



### **CHLORHEXIDINE-BASED LIQUID (CONCENTRATE)**

### BELSOL No2



PACKAGE	NET WEIGHT	CODE
Liquid-concentrate	125 ml	00000002139

**PURPOSE** 

Drug treatment of infected root canals in the treatment of pulpitis and periodontitis.

### **ACTIVE INGREDIENTS**

Chlorhexidine bigluconate (2%).

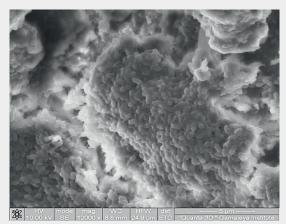
### **ADVANTAGES**

- has a powerful microbicidal effect;
- has activity against gram-positive and gramnegative microorganisms, viruses and fungi;
- does not cause dental discoloration;
- does not affect the polymerization of composite materials;
- recommended for repeated endodontic treatment.

#### **ANALOGUES FOR USE**

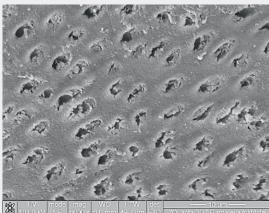
«Consepsis» - «Ultradent», USA «R4» - «Septodont», France «Gluco-chex 2%» - «Cerkamed», Poland

# Evaluation of the chlorhexidine bigluconate solution (2%) activity when cultivating a mixed biofilm on removed teeth ex vivo



1. Simulation of mixed biofilm ex vivo: a fragment of a biofilm with a pronounced mantle and looselying bacterial cells.

SAM magnification 12000x.



2. Action of the chlorhexidine bigluconate solution (2%) on biofilm modeling ex vivo: there were no signs of the presence of microorganisms, however, the orifice of the dentinal tubules on the tooth cut with partial obturation (control).

SAM magnification 6000x.

**Source:** Research Study «Experimental and Clinical Laboratory Evaluation of Antimicrobial Activity of Antiseptic Combination for Endodontic Treatment»

// A.I. Yevdokimov Moscow State University of Medicine and Dentistry

### **EDTA AND MIRAMISTIN-BASED LIQUID**

### **ENDOZHY Nº2+**

### **PURPOSE**

Expansion and antiseptic root canal treatment.

### **ACTIVE INGREDIENTS**

- EDTA;
- miramistin.

### **ADVANTAGES**

- simultaneously removes the smear layer and disinfects the root canals, which reduces processing time;
- does not form a precipitate when mixed with sodium hypochlorite solution;
- does not have a local irritant and allergenic effect.



PACKAGE	NET WEIGHT	CODE
Liquid №2+	15 ml 100 ml 250 ml	0000000000 0000000000 00000000000

ANALOGUES FOR USE
«SmearOFF 2-in-1» - «Vista Dental Products», USA
«QMix 2 in 1» - «Dentsply Sirona», USA

# Strains antiseptic sensitivity (based on the analysis of microbial populations growth curves in vitro)

Tank shoring a sugar	Miramistin		
Test strain name	Bacterio fungistatic concentration,	Microbicidal concentration,	
S. aureus	0,05	0,1	
E. faecalis	0,05	0,1	
P. intermedia	0,05	0,1	
F. necroforum	0,025	0,05	
C. albicans	0,05	0,1	
C. krusei	0,1	0,2	

**Source:** Research Study «Experimental and Clinical Laboratory Evaluation of Antimicrobial Activity of Antiseptic Combination for Endodontic Treatment»

// A.I. Yevdokimov Moscow State University of Medicine and Dentistry



### **HEMOSTATIC AGENTS**

### **PURPOSE**

Root canal treatment to stop apical bleeding.

### **ACTIVE INGREDIENT**

### **ALUMINUM CHLORIDE**







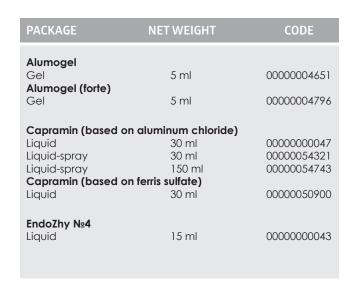




# ACTIVE INGREDIENT FERROUS SULFATE











### ANALOGUES FOR USE

«Race gel» - «Septodont», France «Alustat gel» - «Cerkamed», Poland «Racestyptine» - «Septodont», France «Alustat» - «Serkamed», Poland «Hemostatic» - «PD», Switzerland

### **ROOT CANAL ORIFICE INDICATOR**

### COLOR-TEST Nº4

### **PURPOSE**

Root canal orifice detection by staining.

#### **ACTIVE INGREDIENTS**

Fuchsin dye.

### **ADVANTAGES**

- staining of demineralized and irregular dentin in a more intense color;
- possibility of repeated use of the «Color-test» №4
- material during endodontic works;
- quick detection of canal orifices and cracks in the dental pulp floor.



PACKAGE	NET WEIGH	IT	CODE
Liquid	5 ml	00000001727	





Using the indicator of the root canal orifice

### LIQUID FOR ROOT CANAL DRYING

### **ENDOZHY Nº1**

### **PURPOSE**

Drying and degreasing of the pulp cavity and root canal before filling.

### **ACTIVE INGREDIENTS**

Highly volatile organic compounds.

### **ADVANTAGES**

- rapid evaporation from the canal without using a compressed air jet;
- degreasing the canal sides for better contact with the filling material;
- · economic use;
- free of diethyl ether and ethanol.



PACKAGE	NET WEIGHT	CODE
Liquid №1	15 ml	0000000039

ANALOGUES FOR USE «Hydrol» - «Septodont», France



### MATERIAL FOR ENDO BLEACHING

### **BELAGEL-O Endo**



PACKAGE	NET WEIGHT	CODE
Paste	1,5 g	00000008914

### ANALOGUES FOR USE

«Endoperox» - «Septodont», France

### **PURPOSE**

Intracoronal whitening of pulpless teeth.

### **ACTIVE INGREDIENTS**

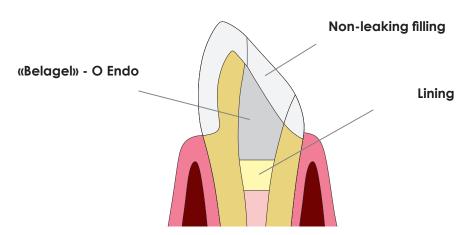
Carbamide peroxide - 60% (equivalent to 22% hydrogen peroxide)

### **ADVANTAGES**

- Elimination of internal discoloration of one or several teeth;
- painless whitening;
- material bactericidal effect.



### «Belagel»-O Endo Material Layout



### РАСТВОРИТЕЛЬ ЦЕМЕНТОВ

### **SOLVADENT Nº1**

### **PURPOSE**

Root canal desobturation previously filled with zinc oxide-evgenol or resorcinol formaldehyde materials.

#### **ACTIVE INGREDIENTS**

Low surface tension organic solvent.

### **ADVANTAGES**

Reducing the time of root canal desobturation filled with zinc oxide-eugenol or resorcinol formaldehyde materials.



Root canal desobturation



PACKAGE	NET WEIGHT	CODE
Liquid	5 ml	0000000119
Gel	5 ml	0000000118

### ANALOGUES FOR USE

«Resosolv» - «Pierre Rolland», France «Endosolv-R, E» - «Septodont», France «Resin Remover» - «PD». Switzerland

### **GUTTA-PERCHA SOLVENT**

### **SOLVADENT Nº2**

### **PURPOSE**

Softening of gutta-percha points.

### **ACTIVE INGREDIENTS**

Gutta-percha solution in a volatile solvent.

### **ADVANTAGES**

- good adaptation when fitting softened guttapercha points;
- considerable reduction in the time of root canal desobturation filled by lateral condensation method.



PACKAGE	NET WEIGHT	CODE
Liquid	10 ml	0000003520

ANALOGUES FOR USE «Desosturator Eugenate» - «PD», Switzerland



### LIQUIDS FOR ROOT CANAL ANTISEPTIC THERAPY

### **CRESODENT-VLADMIVA**



PACKAGE	NET WEIGHT	CODE
Liquid	5 ml	0000000066
Liquid	15 ml	0000012622

#### **ANALOGUES FOR USE**

«Cresophene» - «Septodont», France «Camphor Mono-Chlorophenol» - «PD», Switzerland

### **PURPOSE**

Antiseptic therapy of infected tooth canals.

### **ACTIVE INGREDIENTS**

- · chlorophenol;
- camphor;
- dexamethasone.

### **ADVANTAGES**

- rapid penetration into the root canals due to the low coefficient of surface tension;
- preservation of properties in contact with blood, serum and proteins;
- no irritation of periapical tissues.

### **PULPEVIT Nº2**



PACKAGE	NET WEIGHT	CODE
Liquid №2	15 ml	00000002141

#### ANALOGUES FOR USE

«Pulperyl», «Rockles» - «Septodont», France «Chlobutanol», «Tricresol&Formaline» - «PD», Switzerland

#### **PURPOSE**

Root canal antiseptic therapy in the treatment of complicated tooth caries, resection of the upper part of the tooth root.

### **ACTIVE INGREDIENTS**

- phenol;
- eugenol;
- · formaldehyde;
- dexamethasone.

- antiseptic effect;
- root canal sterilization;
- anti-inflammatory and anti-allergic effect.

### LIQUID FOR ROOT CANAL THERAPY

### **ENDOZHY №3**

### **PURPOSE**

Antiseptic therapy of infected tooth canals.

### **ACTIVE INGREDIENTS**

Glutaric aldehyde;

### **ADVANTAGES**

- antiseptic properties;
- irreversible fixation of the remaining proteins;
- limited diffusion into the tooth structure;
- no periapical irritation.



PACKAGE	NET WEIGHT	CODE
Liquid №3	15 ml	00000000042

### MATERIALS FOR TEMPORARY FILLING

### METRONIDAZOLE AND CHLORHEXIDINE-BASED GEL

### **ENDASEPT**

### **PURPOSE**

Temporary filling of highly infected root canals with gangrenous pulpitis and/or chronic forms of periodontitis, acute periodontitis, as well as after ineffective treatment with non-specific antiseptics or drugs based on antibiotics and corticosteroids.

### **ACTIVE INGREDIENTS**

- metronidazole;
- chlorhexidine bigluconate.

### **ADVANTAGES**

- wide range of antibacterial effect;
- possibility of treating acute periodontitis with ahermetically sealed tooth cavity;
- hydrophilic base for easy introduction into root canalsand rapid washing with water.



PACKAGE	NET WEIGHT	CODE
Gel	15 ml	00000010046

ANALOGUES FOR USE «Grinazole» - «Septodont», France



### **IODINE-CONTAINING PASTE**

### **BELAIOD**



PACKAGE	NET WEIGHT	CODE
Paste	3 g	0000001326

#### ANALOGUES FOR USE

«lodo Glycol Paste Neo» - «Neo Dental Chemical Products Co., Ltd», Япония

#### **PURPOSE**

Therapy and temporary obturation of infected root canals. Antiseptic treatment of oral mucosa at treating stomatitis, gingivitis, periodontitis.

### **ACTIVE INGREDIENTS**

- iodine;
- lecithin;
- glycerin.

#### **ADVANTAGES**

- has powerful bactericidal properties;
- used for short-term root canal obturation;
- is an alternative to antibiotics in the periodontitis
- · treatment.

### **IODOFORM-BASED PASTE**

### **IODENT** NON-HARDENING



PACKAGE	NET WEIGHT	CODE
Paste non-hardening	25 g	0000000032

#### ANALOGUES FOR USE

«Jodoformova pasta» - «Spofa Dental», Чехия «lodoform pasta», «Abscess Remedy pasta» - «PD», Switzerland

### **PURPOSE**

Temporary filling of infected canals in the treatment of pulpitis, periodontitis, as well as in the treatment of reinfection after filling.

### **ACTIVE INGREDIENTS**

- iodoform;
- camphor;
- · chlorophenol.

### **ADVANTAGES**

- has prolonged, disinfectant and bactericidal features;
- allows to perform multi-stage treatment in several visits;
- resorbable in soft tissues.

### **Clinical Use Experience**

**«lodent»** paste, due to its n-chlorophenol and camphor, has disinfecting and bactericidal properties, eliminates odor, does not cause dysbacteriosis in the oral cavity, develops protective properties of periapical tissue and is well tolerated by the body. In the case of possible getting of paste out of apex, the reactions are minimal. In pediatrics **«lodent»** does not prevent the formation of an subjacent tooth germ.

Source: Molokov V.D., Dorzhieva Z.V., Klyushnikova M.O. Temporary root canal filling
// Study guide, Irkutsk, ISMU 2012

### Ca(OH),-BASED MATERIALS

### POWDER BASED ON CALCIUM HYDROXIDE

### **CALCEVIT**

### **PURPOSE**

- root canal disinfection in the treatment of pulp irreversible inflammation and necrosis;
- temporary obturation in the treatment of complicated tooth caries in several visits;
- temporary obturation in the treatment of destructive forms of chronic periodontitis for disinfection of root canals and stimulation of bone tissue regeneration processes;
- permanent filling of the root canals of milk teeth.



# PACKAGE NET WEIGHT CODE Powder 7 g 00000001774

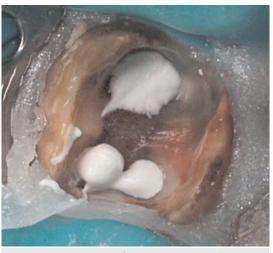
#### ANALOGUES FOR USE «Calxyd» - «Spofa Dental», Чехия

### **ACTIVE INGREDIENTS**

- high desperasible calcium hydroxide;
- radiopaque contrast additives.

### **ADVANTAGES**

- significant bactericidal effect due to high pH level;
- coagulation and dissolution of necrotic tissue;
- absence of osseous resorption, stimulation of reparative processes in periapical tissues;
- high biological compatibility, absence of carcinogenic, teratogenic, mutagenic and general toxic effects;
- optimal consistency of the suspension obtained by mixing the powder with liquid as selected (distilled water or sodium chloride solution).



Temporary filling of canals with calcium hydroxide paste

Source: Belyayeva T., Bolyachin A.

Main properties and biological effects of materials based on calcium hydroxide.

// Department of Therapeutic Dentistry and Endodontics, Moscow State Medical Dental University



### COPPER-CALCIUM HYDROXIDE-BASED MATERIAL

### **CUPRODENT**



PACKAGE	NET WEIGHT	CODE
Package: Suspension №1 Suspension №2 Powder	20 g 20 g 10 g	00000001574
Suspension №1 Suspension №2 Powder	20 g 20 g 10 g	0000001847 00000001958 00000001893

#### ANALOGUES FOR USE

«Atacamit» - «Humanchemie», Germany «Cupral» - «Humanchemie», Germany

### **PURPOSE**

- treatment (washing) of infected root canals of permanentteeth;
- treatment of tooth pulpitis with difficult root canals byelectro(depo)phoresis;
- treatment of complicated tooth caries of temporary teeth and teeth with open apex;
- filling the root canals of the teeth after any type of treatment, including depophoresis;
- direct and indirect pulp coating in the treatment of advanced caries.

### **ACTIVE INGREDIENTS**

- Suspension № 1: copper-calcium hydroxidebased (violet-blue);
- Suspension № 2: calcium hydroxide-based (white);
- Powder: contains copper-calciumhydroxide.

### **ADVANTAGES**

- high alkalinity of suspensions (pH 12.8), ensuring
- sterility in the contact area;
- stimulation of osteogenesis;
- antibacterial action of copper hydroxide;
- universality of material for all types of devices used for depophoresis;
- permanent obturation with long-hardening alkaline material having prolonged disinfecting activity.

# Results of application of copper-calcium hydroxide depophoresis method





**Source**: Zhuk D. D. Copper-calcium hydroxide depophoresis. Effectiveness of complicated caries treatment. // Institute of Dentistry of the Academy of Medical Sciences of Ukraine. Department of Pediatric Dentistry

### **Clinical Use Experience**

The article discusses the experience of endodontic treatment of single teeth and roots that have been preserved on the jaw and are used to fix overdentures. Endodontic therapy of the canals of 29 teeth (13 molars, 4 premolars, 14 incisors and canines of the upper and lower jaws) was carried out, which were subsequently used under support for the telescopic fastening system. After obturation of the canal apical third with **«Trioxident»** material, the authors performed dosed electrophoresis with **«Cuprodent»**. Observations have shown that sealing the tooth root apex using **«Trioxident»** material followed by depophoresis with copper-calcium hydroxide significantly improves the quality of endodontic treatment of single-standing teeth, and contributes to their long-term service as an attachment to a removable denture.

Source: Belova A.V., Lipunova M.V., Savvidi K.G., Savvidi G.L. Experience of using calcium-containing materials in endodontic treatment of alone standing teeth and roots before prosthetics.

// Vernevolzhsky Medical Journal. 2015 (3):10-13

# Clinical use experience of «Cuprodent» material in the treatment of apical periodontitis

Treatment of apical periodontitis of 47 teeth of upper and lower jaws was carried out in 35 patients aged 62-70 years using **«Cuprodent»** material for depophoresis of copper-calcium hydroxide. The method allows to stop the inflammatory process in a short time. The high antimicrobial activity of copper-calcium hydroxide, as well as its pronounced osteotropic effect, contribute to the restoration of bone tissue in the foci of destruction, even in the elderly people. Depophoresis of copper-calcium hydroxide makes it possible to impregnate root dentin with copper sulfide, to ensure long-term sterility in the root canal system, and thereby improve the quality of endodontic treatment, which is especially important when preparing for prosthetics.

Long-term results in 30 patients who came for a follow-up examination after prosthetics with artificial crowns in a period of 2-3 years showed stabilization of the pathological process, and sometimes granulomas developed back at the apex of the roots.



1. Radiolucency local area at the tooth root apex.



2. Substitution of the destructive lesion at the tooth root apex with bone tissue after 1.5 years.

Source: Lipunova M.V., Savvidi G.L., Savvidi K.G., Piekalnits I.Ya., Ivanova Yu.V. Accelerated method of treatment of apical periodontitis before prosthetics with fixed prostheses.

// Tver Medical Journal, №3, 2014



### PASTE FOR TEMPORARY FILLING OF ROOT CANALS

### **APEXDENT** IODOFORM-FREE



PACKAGE	NET WEIGHT	CODE
Paste	2,2 g	0000001736

#### **ANALOGUES FOR USE**

«Metapaste» - «Meta Biomed», South Korea

### **PURPOSE**

- treatment of irreversible pulpitis;
- conservative treatment of all forms of chronic
- periodontitis;
- closure of root perforations;
- apexification and apexogenesis.

#### **ACTIVE INGREDIENTS**

- calcium hydroxide;
- radiopaque filler.

### **ADVANTAGES**

- high pH level (12,5);
- long-lasting antibacterial effect;
- stimulation of osteogenesis.

### Clinical Use Experience

The clinical stage of work was carried out in the «Aurora Dental Clinic». Endodontic treatment of 41 patients aged 18 to 64 years with various forms of chronic periodontitis was carried out. After preparing the canals according to the traditional protocol, with an interval of 2 weeks, a temporary obturation of the root canals using «Apexdent» material was performed with filling the cavity with temporary material. As a result, on the basis of an X-ray evaluation, positive dynamics were concluded with time obturation periods of up to 3 months: decrease in the area of destruction in the apical part, bone tissue regeneration after application of the «Apexdent» material.

Source: Shayymbetova A.P. Clinico-radiological study of chronic periodontitis treatment.

// KRSU Bulletin. 2017. Volume 17. № 379.

### **IODOFORM-CALCIUM ROOT CANAL FILLING PASTE**

### **APEXDENT** WITH IODOFORM



PACKAGE	NET WEIGHT	CODE
Paste	2,2 g	0000001344

#### ANALOGUES FOR USE

«Vitapex» - «Nippon Shika Yakohin», Япония «Метарех» - «Meta Biomed», South Korea

### **PURPOSE**

- treatment of chronic periodontitis;
- formation of a hard tissue barrier during root perforations and resorptions;
- root apexification;
- filling of temporary teeth canals.

### **ACTIVE INGREDIENTS**

- calcium hydroxide;
- iodoform;
- hydrophobic paste-adjuster.

- high pH level (12,5);
- prolonged antibacterial effect;
- stimulation of osteogenesis;
- tightness of contractual filling provided by an insoluble base;
- resorption of the material together with the temporary tooth root resorption or when getting out of apex.

### SUSPENSIONS BASED ON CALCIUM HYDROXIDE

### **CALCESEPT**

### **PURPOSE**

- processing of infected root canals;
- temporary root canal filling;
- indirect and direct pulp coating;
- apexification and apexogenesis.

#### **ACTIVE INGREDIENTS**

- calcium hydroxide;
- radiopaque filler;
- copper-calcium hydroxide (in suspension №2).

### **ADVANTAGES**

- high pH level (12,5);
- antibacterial effect;
- stimulation of osteogenesis;
- biocompatibility.



PACKAGE	NET WEIGHT	CODE
Suspension №1 Suspension №2	2,5 g 2,5 g	00000021077

ANALOGUES FOR USE «Calasept» - «Nordiska», Sweden

### CALCIUM PHOSPHATE BIOCERAMIC MATERIAL

### PHOSPHADENT-BIO

### **PURPOSE**

Temporary filling of the infected canals of permanent and temporary teeth in the treatment of pulpitis or periodontitis.

### **ACTIVE INGREDIENTS**

Calcium oxide.

### **ADVANTAGES**

- powerful antibacterial effect;
- dissolution of organic residues in places inaccessible to tools;
- airtight canal obturation due to increase in volume of material during hardening;
- stimulation of osteogenesis.



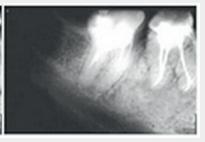
PACKAGE	NET WEIGHT	CODE
Powder Liquid	15 g 12 ml	0000000132

ANALOGUES FOR USE «Biocalex» - «Spad», France

# Study of the effectiveness of «Phosphadent-Bio» cement use for temporary filling of the root canals in the treatment of destructive forms of apical periodontitis







Source: Orlova E.E., Koryagina E.A., Spiridenko E.Yu., Grudtsina I.A., Marchenko N.I. Treatment of destructive forms of chronic periodontitis using the Phosphadent-Bio material // Modern clinical medicine: International scientific conference information package, Moscow, 2013



### **BACTERICIDAL PASTE**

### **IODENT HARDENING**



PACKAGE	NET WEIGHT	CODE
Paste hardening	25 g	0000001383

#### **ANALOGUES FOR USE**

«Теmpophore» - «Septodont», France; «Jodoformova pasta» - «Spofa Dental», Чехия «Iodoform pasta», «Abscess Remedy pasta» - «PD», Switzerland

### **PURPOSE**

Dental canal filling in case of pulpitis, acute and chronic periodontitis.

### **ACTIVE INGREDIENTS**

- iodoform;
- chlorophenol;
- · camphor;
- hydrophobic paste- adjuster.

#### **ADVANTAGES**

- has an antiseptic basis;
- has prolonged disinfectant and bactericidal effect;
- reduces the possibility of complications and pain reaction after filling;
- paste absorbs in soft tissues;
- does not prevent formation of the subjacent tooth germ when filling temporary teeth.

### ANTISEPTIC PASTE ON PARA-CHLOROPHENOL BASIS

### **CRESODENT-VLADMIVA**



PACKAGE	NET WEIGHT	CODE
Paste	25 g	0000000067

**ANALOGUES FOR USE** ((Cresopate)) - ((Septodont)), France

### **PURPOSE**

Filling of infected and difficult canals, as well as canals with incomplete pulp extraction.

### **ACTIVE INGREDIENTS**

- parachlorophenol;
- camphor;
- zinc sulfate.

- radioopaque;
- easy to inject and completely fills the root canal;
- formalin-free;
- does not irritate periapical tissues.

### ANTISEPTIC MATERIAL FOR FILLING INFECTED ROOT CANALS

### PULPODENT LONG-HARDENING

#### **PURPOSE**

Treatment of destructive forms of chronic apical periodontitis.

### **ACTIVE INGREDIENTS**

- powder: zinc oxide, iodoform, polyoxymethylene;
- Liquid: dexamethasone, formaldehyde, phenol, eugenol.

### **ADVANTAGES**

- has bactericidal properties;
- has high radiopacity and low solubility;
- provides resorption of granulomas and regeneration of periapical tissues.



PACKAGE	NET WEIGHT	CODE
Powder Liquid	20 g 15 ml	00000046701

ANALOGUES FOR USE «Granulotec» - «PD», Switzerland

### ANTISEPTIC MATERIAL BASED ON RESORCIN-FORMALINE

### **RESODENT-VLADMIVA**

### **PURPOSE**

Antiseptic therapy and filling of root canals with incomplete extraction of the pulp as well as difficult canals.

### **ACTIVE INGREDIENTS**

- treating liquid: formaldehyde;
- liquid for hardening: resorcinol and catalyst;
- powder: trioxymethylene and radiopaque filler.

### **ADVANTAGES**

- retains plasticity for 30 minutes;
- tightly fills the canal and hardens within 24 hours.
- has antiseptic properties;
- «Resodent-Vladmiva-D» with dexamethasone contains an active additive - dexamethasone to provide effective anti-inflammatory and anti-allergic effects.



PACKAGE	NET WEIGHT	CODE
«Resodent - Vladmiva» Powder Treating liquid Liquid for hardening Powder Treating liquid Liquid for hardening 25	10 g 5 ml 5 ml 40 g 25 ml	0000000128
<b>«Resodent - Vladmiva»</b> Powder Treating liquid Liquid for hardening	20 g 10 ml 10 ml	00000018851

ANALOGUES FOR USE «Forfenan» - «Septodont», France «Foredent» - «Spofa Dental», Чехия



### ZINCOXIDE-EUGENOL CEMENT

### **EODENT LONG-HARDENING**



PACKAGE	NET WEIGHT	CODE
Powder Liquid	25 g 8 ml	0000000138

#### ANALOGUES FOR USE «Endodent» - «PSP Dental», Андлия

#### **PURPOSE**

Filling root canals, both in adult and pediatric dentistry.

### **ACTIVE INGREDIENTS**

- powder: zinc oxide, hydroxyapatite, radiopaque filler:
- Liquid: eugenol with plastifying agents.

### **ADVANTAGES**

- high ductility;
- long hardening time;
- good sealing ability;
- prolonged antimicrobial action;
- easy removal from the canal during disobturation.



# Obstruction of the root canals of the upper medium incisors using the master pin technique with zinc oxide eugenol sealer

«The group of zinc oxide eugenol sealers at the present stage is used in endodontics subject to the rules for the preparation of the root canal and its obstruction using guttapercha pins».

Source: Skripnikova T. Zinc oxide-eugenol-based sealers in endodontic practice // DentArt: Journal of Science and Art in Dentistry. - 2009. - N 1. - P. 37-40.

### **ANTISEPTIC ZINCOXIDE-EUGENOL CEMENT**

### TIEDENT, TIEDENT-N (dexamethasone-free)



PACKAGE	NET WEIGHT	CODE
Powder Liquid	14 g 10 ml	00000026009
Powder	14 g	00000009158

#### ANALOGUES FOR USE

«Endomethasone N», «Endomet Plain» - «Septodont», France «EndoFill» - «PD», Switzerland

### **PURPOSE**

Filling root canals in case of gangrenous pulpitis, different forms of periodontitis, especially acute one.

### **ACTIVE INGREDIENTS**

- powder: zinc oxide, radiopaque additives, hydrocortisone acetate (1%), dexamethasone (0,01%);
- liquid: eugenol, plasticizer.

- high plasticity;
- · radioopaque;
- has bactericidal and anti-inflammatory properties;
- does not irritate pericarp tissue;
- effective in the presence of changes in tooth root bones.

### SEALER BASED ON CALCIUM HYDROXIDE

### **OXIDENT**

### **PURPOSE**

Filling tooth root canals by treatment of pulpitis or apical periodontitis in combination with guttapercha and silver points.

#### **ACTIVE INGREDIENTS**

- · calcium oxide;
- salicylate ether;
- radiopaque filler.

### **ADVANTAGES**

- alkaline environment (pH 12,8);
- antibacterial effect;
- stimulation of reparative regeneration of pericarp tissues;
- excellent flow property;
- low solubility after hardening;
- no deterioration of periapical tissues



PACKAGE	NET WEIGHT	CODE
Paste white Paste yellow	12 g 12 g	00000018849

ANALOGUES FOR USE «Sealapex» - «Kern», USA

### **Clinical Use Experience**

Calcium hydroxide reacts with salicylate ether, forming a chelate, as in the reaction of zinc oxide with eugenol. And in this case, the reaction is also greatly accelerated by the action of moisture and catalysts.

Source: Kuryakina N.V. Therapeutic dentistry of childhood age. // M.: Medical Book, N. Novgorod: NSMA Publishing House, 2004. - 744 p.

### SEALER BASED ON CALCIUM, SILICON, ALUMINUM (MTA) OXIDES

### TRIOXIDENT PASTE-PASTE

### **PURPOSE**

Root canal filling in the treatment of pulpitis or apical periodontitis in combination with guttapercha pins.

### **ACTIVE INGREDIENTS**

- fine particles of oxides of calcium, silicon, aluminum;
- salicylate ether;
- radiopaque filler.

### **ADVANTAGES**

- prolonged release of calcium hydroxide;
- alkaline environment (pH 12,8);
- antibacterial effect;
- stimulation of reparative regeneration of pericarp tissues;
- excellent flow property;
- low solubility after hardening;



PACKAGE	NET WEIGHT	CODE
Basic paste Catalytic paste	1 ml 1 ml	00000052555
Basic paste Catalytic paste	2.4 g 1.6 g	00000053104
Basic paste Catalytic paste	7.2 g 4.8 g	00000043105

ANALOGUES FOR USE

«MTA Fillapex» - «Angelus», Бразилия



### MATERIALS BASED ON CALCIUM, SILICON, ALUMINUM (MTA) OXIDES

### TRIOXIDENT



PACKAGE	NET WEIGHT	CODE
Trioxident		
Powder	0.5 g x 10 pcs	00000005128
Powder capsules	0.35 g x 10 pcs	0000005417
Powder	0.3 g x 10 pcs	
Tools*	3 pcs	
Tools*	3 pcs	0000007747
Tools*	1 pcs	00000026011
Trioxident quick hard	dening	
Powder	0.5 g x 10 pcs	
Liquid	3 ml	00000043519

\* Using tools for retrograde filling allows metered, effortless delivery of material to hard-to-reach areas of the root canal.

#### ANALOGUES FOR USE

«ProRoot, MTA» - «Dentsply», USA «PD MTA White» – «PD», Switzerland «Biodentine» - «Septodont», France

#### **PURPOSE**

- · retrograde filling;
- filling the apical part of the canal with incomplete root formation;
- closure perforations and other defects of the root canal;
- treating and insulating pulp coating.

### **ACTIVE INGREDIENTS**

- fine particles of oxides of calcium, silicon, aluminum;
- plasticizer:
- radiopaque filler;
- copper-calcium hydroxide.

### **ADVANTAGES**

- bactericidal properties;
- high biocompatibility;
- low solubility;
- high mechanical strength;
- hardening conditioned upon moisture.

# Clinical case of treatment of temporary teeth pulpitis using «Trioxident» quick hardening material

Parents appealed to the clinic with complaints about the presence of a carious cavity of 84 and 85 teeth in a 4-year-old child. **Diagnosis:** chronic fibrous pulpitis of the 84th and 85th teeth.

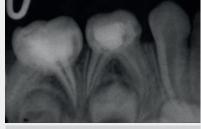
After anesthesia, expansion, preparation and washing with a 0.5% solution of chlorhexidine bigluconate of the carious cavities in both teeth, vital amputation of the coronal pulp was performed in both teeth until the root canal mouths were visualized.

After hemostasis, the crown pulp cavity was filled with **«Trioxident»** material and quickly hardened and the occlusal surface of the tooth was restored.

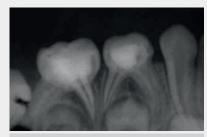
Clinical observations of the child after treatment indicate the preservation of the viability of the pulp in the root canals and the prevention of complications in the periapical region in the immediate vicinity of the incapable rudiments of the permanent teeth.



before treatment



3 months after treatment

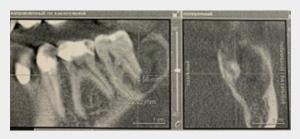


6 months after treatment

Source: I.V. Chizhevsky, V.S. Stulikova. Clinical example of the Trioxident material use for the treatment of chronic pulpitis of temporary teeth // Modern Dentistry 5/2014

	«Trioxident»	«Trioxident» quick hardening
Purpose	retrograde filling, root canal defects correction	indirect and direct pulp coating, temporary filling
Mixing ratio	powder : dist. water 3 : 1	powder : liquid 3,5 : 1
Action time	10-15 minutes	3-4 minutes
Initial hardening time	4 hours	12-15 minutes
Collapsing strength	40±2 MPa	> 90 MPa

# «Trioxident» use experience for the treatment of inflammatory and destructive processes of the apical periodontal tissues.



Patient, 43 years old, turned to the clinic with complaints of discomfort when biting the lower jaw tooth on the left, for the presence of tooth mobility and for periodic aching tooth pain.

**Diagnosis:** 3.7 - a radicular cyst complicated by root lysis.

Treatment was carried out in 2 visits. On the 1st visit, mechanical and drug treatment of the root canals was carried out, followed by their filling with temporary **«Apexdent»** material for a period of 1 week.

On the second visit, the medial root canals were sealed with gutta-percha by vertical condensation. Filling of the distal root was carried out using an operating microscope. The root was sealed with the **«Trioxident»** material, the orifice was closed by the GIC. Next, tooth restoration was performed using the **«DentLight»** composite material.





Follow-up image after 1 week.





Follow-up image after 3 months.







Follow-up image after 1.5 year.

Source: The clinical case was provided by the dentist Mishina N.S.



#### GLASS IONOMER WATER-CURED CEMENT

# **STIODENT**



PACKAGE	NET WEIGHT	CODE
Powder	10 g	0000000122

#### **ANALOGUES FOR USE**

«Ketak Endo» - «3M Espe», Germany «Endion» - «Voco», Germany

#### **PURPOSE**

Filling of root canals in combination with guttapercha or metal points.

#### **ACTIVE INGREDIENTS**

- alumofluoro-silicate glass;
- polyacrylic acid.

#### **ADVANTAGES**

- high biocompatibility;
- good adhesion to dentine;
- radiopacity;
- mechanical strength;
- long fluoride release;
- bactericidal effect;
- low solubility.

#### CALCIUM-PHOSPHATE CEMENT

## **PHOSPHADENT**



PACKAGE	NET WEIGHT	CODE
Powder Liquid	15 g 12 ml	0000000130

#### ANALOGUES FOR USE

«Biocalex» - «Spad», France «Biopulp» - «Chema», Poland

#### **PURPOSE**

Filling root canals both using the pins and without the latter under all types of permanent filling materials, including the composite ones.

#### **ACTIVE INGREDIENTS**

- calcium hydroxide;
- calcium phosphates;
- calcium fluoride;
- radiopaque additives.

#### **ADVANTAGES**

- biocompatibility;
- · radiopacity;
- low solubility;
- expressed bacteriostatic effect;
- hydroxyapatite formation.

#### MATERIAL BASED ON EPOXY RESIN

# **VIEDENT**

#### **PURPOSE**

Filling tooth root canals by treating of pulpitis or apical periodontitis with use of gutta-percha points.

#### **ACTIVE INGREDIENTS**

- epoxy amine polymer;
- calcium hydroxide;
- radiopaque filler.

#### **ADVANTAGES**

- good adhesion to the dentine of the canal walls;
- high strength characteristics;
- · low shrinkage degree and solubility;
- effective canal sealing.



PACKAGE	NET WEIGHT	CODE
Powder / Liquid	20 g / 10 ml	0000000022
Paste / Paste	4 ml / 4 ml	0000002108

ANALOGUES FOR USE «AH-26», «AH-Plus» - «Dentsply», USA «Acroseal» - «Septodont», France

#### **Clinical Use Experience**

57-year-old patient complained of a filling loss.

**Diagnosis:** 3.7 - chronic granulomatous periodontitis complicated by distal root lysis.

Treatment was carried out in 2 visits. On the 1st visit mechanical and drug treatment of the root canals was carried out with their subsequent filling using temporary **«Apexdent»** material for a period of 1 week.

On the second visit the root canals were sealed with gutta-percha by vertical condensation using the **«Viedent»** sealer. Further tooth restoration was performed using composite material.



Tooth before treatment.



X-ray examination after 1 month.

After 1 month the patient does not present any problem. Percussion is negative. Positive changes in the structure of bone tissue are observed.

Source: The clinical case was provided by the dentist Mishina N.S.



#### MATERIAL ON SILICON BASIS

# **SILDENT**



PACKAGE	NET WEIGHT	CODE
Paste white Paste yellow	7 g 7 g	0000001572

#### **PURPOSE**

Filling canals in the treatment of pulpitis and apical periodontitis in combination with cold gutta-percha or obturation without points in case of narrow root canals.

#### **ACTIVE INGREDIENTS**

- synthetic rubber;
- hydroxyapatite;
- iodoform;
- radiopaque filler.

#### **ADVANTAGES**

- high flow;
- good sealing properties;
- antibacterial effect;
- radiopacity;
- stimulation of osteogenesis.

#### **Laboratory Study Experience**

Experimental studies were carried out on 30 extracted teeth. The teeth were dissected, the root canals were instrumentally and medically treated, then they were filled with gutta-percha by lateral condensation or one central pin using **«Sildent»**, **«Viedent»**, and AN Plus™sealers (10 teeth per each group), insulating pads made of glass ionomer cement and composite fillings were applied.

The results of the study showed high efficiency of using domestic endo-sealants.

Source: Mitronin A.V., Nekhorosheva L.S. Evaluation of the tightness of root fillings and their clinical effectiveness // Endodontics today, № 1-2, 2004

#### ANTISEPTIC CEMENT BASED ON TRICREZOLFORMALDEHYDE RESIN

# **TRICREDENT**



PACKAGE	NET WEIGHT	CODE
Powder Liquid Solvent	15 g 10 ml 10 ml	0000001042

#### ANALOGUES FOR USE

«Creidodent» - «Alpha-Beta Medical Supply», USA

#### **PURPOSE**

Filling root canals in case of apical periodontitis and pulpitis.

#### **ACTIVE INGREDIENTS**

- Liquid: tricresol formaldehyde resin;
- **Powder:** radiopaque filler.

#### **ADVANTAGES**

- antiseptic properties;
- ductility;
- radiopacity;
- root canal filling using one paste method or in
- combination with gutta-percha points.

#### **DUAL-CURING COMPOSITE SEALER**

## COMPOCEM-ENDO

#### **PURPOSE**

Permanent filling of root canals in the treatment of pulpitis and periodontitis.

#### **ACTIVE INGREDIENTS**

- mixture of methacrylic oligomers;
- nanostructured hydroxyapatite.

# Composem-Endo Passe basic Passe casalytic 3-5 g Passe casalytic 3

#### **ADVANTAGES**

- · high flow;
- radiopacity;
- · improved dentine wetting;
- effective use in tooth restoration with fiberglass pins.

PACKAGE	NET WEIGHT	CODE
Basic paste Catalytic paste Primer	3,5 g 3,5 g 5 ml	00000032610

#### **Clinical Use Experience**

The clinical study involved 95 patients aged 20 to 60 years with a **diagnosis of acute and chronic pulpitis**, with 53 patients in the observation group having root canals filled with gutta-percha points using **«Composter-Endo»** sealer, and 42 in the control group - using AH plus sealer. The treatment quality assessment was performed radiologically, as well as using the Ryge criteria.

#### Study results:

In 6 and 12 months after the endodontic treatment the compliance with the "A" indicator was observed in all cases according to the studied parameters of Ryge criteria. No changes in the periapical zone were detected in patients of both groups.

So the use of the domestic material **«Compocem-Endo»** as a sealer with gutta-percha points for obturation of the root canals in patients with acute and chronic pulpitis allows to provide effective treatment, the long-term results of which do not differ from those with the use of gutta-percha points and «AH plus» sealer.

Source: Krovyakova E.I. Clinical evaluation of the use of domestic composite material in endodontic treatment of pulpitis.

// Dental Forum. 2016 . №4. p. 41



#### TOOTH TISSUE REPAIR SET

## **ARMODENT**



#### **PURPOSE**

Root pin structures fabrication to strengthen and restore the crown of the depulpted teeth before prosthetics.

#### **SET PACKAGE**

- silanized fiberglass pins;
- quadrangular reamers;
- dual-cure composite resin cement;
- one component adhesive;
- etching gel.

#### CHARACTERISTICS AND ADVANTAGES

#### «Armodent» Silanized Fiberglass Pins:

- are characterized by special strength, durability, elasticity, as well as light conductivity and radiopacity;
- having a modulus of elasticity close to that of dentine, they ensure uniform distribution of external forces in the "pin tooth tissue" system; reduce the risk of tooth fracture;
- have micromechanical adhesion to the composite due to the rough surface of the fibers, as well as chemical adhesion due to the chemical affinity of the oligomeric pin matrix to the composite material;
- do not change the color of composite restorations and all-ceramic structures;
- easy to use, can be easily removed from the root canal if repeated endodontic treatment is required.

**«Compofix» dual-cure composite resin cement** has low solubility, sufficient strength, adhesion to hard tooth tissues and surfaces of various orthopedic structures.

**«DentLight» one component adhesive** provides a strong bond (adhesion) of the composite material to the hard tooth tissues.

**The etching gel on organic base** has optimal flow property; when dentine is processed, it removes the smear layer within 30 seconds by revealing the dentinal tubules (which provides higher adhesion of the filling material to the root canal dentin) and is completely washed off with water.

**Using the «ARMODENT» Set** allows creating reliable monolithic support for the restoration design.



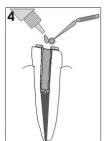


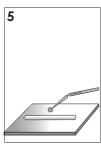
#### **«ARMODENT» SET USE PATTERN**

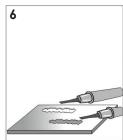










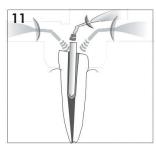












- 1. Preparation of the pin site
- 2. Fitting a pin of suitable diameter
- 3. Etching the canal with an etch gel for 30 seconds, rinsing with water, drying with paper points
- 4. Application of a «DentLight» all-in-one adhesive (curing the adhesive with the light of a halogen lamp (450-500 nm) for 20 seconds)
- 5. Degreasing and surface treatment of the pin with «DentLight» adhesive
- 6. Mixing of «Compofix» fixing cement
- 7. Filling mixed cement in the prepared canal
- 8. Distribution of cement over the entire surface of the pin
- 9. Installing the pin in a prepared canal
- 10. Removing excess cement
- 11. Polymerization of cement by light of a halogen lamp for 30-40 seconds

PACKAGE	NET WEIGHT	CODE
Set Fiberglass pin Fiberglass pin Fiberglass pin Quadrangular reamer Quadrangular reamer Quadrangular reamer Compofix Fixing Composite Cement DentLight one component adhesive	D-1,0 mm 6 pcs D-1,2 mm 6 pcs D-1,4 mm 6 pcs D-1,0 mm 1 pcs D-1,2 mm 1 pcs D-1,4 mm 1 pcs	00000008909
Gel on organic base for etching	3 ml	
Pins Fiberglass pin Fiberglass pin Fiberglass pin	D-1,0 mm 10 pcs D-1,2 mm 10 pcs D-1,4 mm 10 pcs	00000008910 00000008911 00000008912
Reamer Quadrangular reamer Quadrangular reamer Quadrangular reamer	D-1,0 mm 6 pcs D-1,2 mm 6 pcs D-1,4 mm 6 pcs	0000000000 0000000000 00000000000
Available as a set and as separate item.		

ANALOGUES FOR USE

«DC Light Post» - «Эстейд- Сервисдругі», Russia «D.T. Light Post» - «Bisco», USA «Glassix» - «H. Nordin SA», Sweden



# Pulpitis treatment algorithm in uninfected root canals

	Work stages	Materials used	Classic processing scheme
	Working field disinfection	Polident №4 BelSol №2 Belodez (3%)	Tooth polishing with «Polident» paste № 4, treatment with BelSol № 2 solution. Cofferdam installation, treatment of the surgical field with «Belodez» (3%), «BelSol» № 2 solutions.
Trepanation, amputation, extirpation		Belodez (3%)	Pulp chamber cavity is filled with «Belodez» solution (3%) 5 ml, root canals are washed for 2-5 minutes.
		Belodez (3%)	Root canals are washed with «Belodez» (3%) solution for 2-5 minutes
	Root canal preparation	EndoZhy №2 Solvadent №3 EndoGel №1, №2	In case of narrow difficult canals, the solution is introduced into the root canals for 1 minute.
	Removal of the smear layer	EndoZhy №2 Solvadent №3	3-5 ml for not more than 1 min. Root canal irrigation is made with an endodontic needle.
obturation	Disinfection	Belodez (3%) + Belodez-activator	10 ml, root canal irrigation is made with an endodontic needle* or with an irrigation device
nt before ok	Intermediate washing	NaCl 0,9%	10 ml, root canal irrigation is made with an endodontic needle*
Treatme	Drying	EndoZhy №1 Anhydrin	1 ml, root canal washing*
	Temporary obturation	Calcevit-powder Calcesept	1-3 weeks, as needed.
Permanent obturation using gutta-percha		Viedent Eodent Tiedent Stiodent	According to the applied methodology and manufacturer's recommendations (material selection is carried out by the dentist).

<sup>\*</sup> Use of ultrasonic treatment - 10 ml, three times, passive ultrasonic irrigation of the root canals with an endodontic needle for 20 seconds.

# Algorithm for treating pulpitis and apical periodontitis in infected root canals

	Work stages	Materials used	Classic processing scheme
	Working field disinfection	Polident №4 BelSol №2 Belodez (3%)	Tooth polishing with «Polident» paste № 4, treatment with BelSol № 2 solution. Cofferdam installation, treatment of the surgical field with «Belodez» (3%), «BelSol» № 2 solutions.
Trepanation, amputation, extirpation		Belodez (3%)	Pulp chamber cavity is filled with «Belodez» solution (3%) 5 ml, root canals are washed for 2-5 minutes.
		Belodez (3%)	Root canals are washed with «Belodez» (3%) solution for 2-5 minutes
	Root canal preparation	EndoZhy №2 Solvadent №3 EndoGel №1, №2	In case of narrow impassable canals, the solution is introduced into the root canals for 1 minute.
	Removal of the smear layer	EndoZhy №2 Solvadent №3	3-5 ml for not more than 1 min. Root canal irrigation is made with an endodontic needle.
L C	Disinfection	Belodez (3%) + Belodez-activator	10 ml, root canal irrigation is made with an endodontic needle* or with an irrigation device.
nt before obturation	Intermediate washing	NaCl 0,9%	10 ml, root canal irrigation is made with an endodontic needle*
before (	Disinfection	BelSol №2	10 ml, root canal irrigation is made with an endodontic needle*
Treatment	Intermediate washing	NaCl 0,9%	10 ml, root canal irrigation is made with an endodontic needle*
Tr	Drying	EndoZhy №1 Anhydrin	1 ml, root canal washing*
	Temporary obturation	Calcevit-powder Calcesept	1-3 weeks, as needed.
Permanent obturation using gutta-percha		Viedent, Eodent Tiedent, Oxident, Sildent, Stiodent, Tricredent	According to the applied methodology and manufacturer's recommendations (material selection is carried out by the dentist).

**Source:** «Introduction to Endodontics» Study Guide. Authors: Chuev V.V., Kuprin P.V., Kuprina M.A., Krutov V.A., Tsimbalistov A.V., Chuev V.P., Bondar E.S.



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# **DENTAL COLLECTION**



#### «Trade House «VladMiVa»

118, Sadovaya Str., Belgorod, 308023, Russia tel./fax +7(4722) 200-555 export@tdvladmiva.ru

# VVV VLADMIVA

#### **OUR BRANCHES:**

29a, Zhukov micro-district Stary Oskol, 309512, Russia tel./fax: +7(4725) 33-39-33, 39-05-03 st\_oskol@tdvladmiva.ru

27, Botanic Str. Orel, 302016, Russia tel./fax: +7(4862) 72-54-60, 72-54-61 orel@tdvladmiva.ru

21, 1-Pushkarnaya Str. Kursk, 305029, Russia tel./fax: +7(4712) 227-446, 227-445 kursk@tdvladmiva.ru 101, Working Str.
Voronezh, 394049, Russia
tel./fax: +7(473) 239-27-77, 239-27-80
voronezh@vladmiva.ru

34, Aviatsionnaya Str. Bryansk, 241001, Russia tel./fax: +7(4832) 595-446 bryansk@tdvladmiva.ru

46, Demonstration Str. Tula, 300034, Russia tel./fax: +7(4872) 70-13-20 tula@tdvladmiva.ru

15, Initsiativnaya Str., Lyubertsy, Moscow Region, 140015, Russia tel./fax: +7(495) 565-42-43, 565-42-44 ddvladmiva@gmail.com



