

**Endo-Eze™ MTA Flow™ Cement
(Root and Pulp Treatment Material)****Endo-Eze™ MTA Flow™ Cement
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Description: The Endo-Eze™ MTA Flow™ powder and liquid/gel system consists of an extremely fine, radiopaque, inorganic powder of tricalcium and dicalcium silicate, which sets with a water-based gel for improved placement.

Indications for Use:

The Endo-Eze™ MTA Flow cement is intended for use in dental procedures that contact pulp and periradicular tissues. Dental procedures contacting vital pulp tissue are:

1. Pulpotomy

2. Pulp capping

Dental procedures possibly contacting the periradicular tissues are:

1. Root-end filling

2. Apification

3. Perforation repair

4. Root resorption

Contra-Indications:

Hypersensitivity against caustic (high pH) solutions, not for root canal disinfection.

Vacuum Adapter with a Capillary Tip:

One or two paper points are usually all that are required for final drying of canals if canals are first vacuumed out as described.

Powder Dispensing:

1. Shake the bottle to fluff the powder.

2. Using the enclosed yellow spoon, place 1 level spoonful of powder (see proportions recommended in Table 1) onto the mixing paper pad (a glass slab can be used). Use a spatula edge to level the powder in the spoon.

Dispensing:

3. Shake the bottle 3 times. Make sure that all gel is concentrated in the spoon of the bottle before dropping. Open the cap and dispense drops of gel (see proportions recommended in Table 1) from the gel bottle.

NOTE: The plastic bottle is clear enough to see the gel inside. Avoid the bubble that forms in the gel during the movements above mentioned and verifying the gel at the tip of the bottle before dispensing and verifying the gel at the tip of the bottle after dispensing.

4. For some procedures, a thin consistency may be desired. Table 1 below could be used as reference for different consistencies of the final mix of the Endo-Eze™ MTA Flow cement to be delivered with the clear skin syringes and tips.

NOTE: DO NOT overfill the canal.

Apical Plug (Endo-Eze™ MTA Flow™ in a thin consistency)

can be used as a seal at the apical foramen, in cases of apical restorative, over-instrumentation or apical perforation.

1. After completed canal preparation, irrigate with additional 3-5 ml ChlorCid® sodium hypochlorite solution (3%).

2. Evacuate with Luer Vacuum Adapter and Capillary Tip.

3. Fill canal with Ultradent EDTA 18% solution. Leave for approximately 60 seconds. Evacuate.

4. Rinse with sterile water. Evacuate.

5. Soak with Consensis® antibacterial solution. Leave for approximately 3-5 minutes. Evacuate with Luer Vacuum Adapter and Capillary Tip.

6. Dry with paper points.

7. Place the Navitip tip, 2-mm short of the apical stop.

Gently extend Endo-Eze™ MTA Flow cement in the apical region, aiming to create a 2-mm apical barrier. A thin consistency (see Table 1) of Endo-Eze™ MTA Flow cement delivered by a Navitip, is recommended.

8. Insert and remove the gutta-percha master cone to the working length.

9. Confirm placement of the material in the last apical 2-mm of the canal length with a radiograph. In cases that there are more than 2-mm apical plug, the last instrument should be used to remove the excess of cement.

10. Proceed with the selected obturation technique. Avoid vertical compressing forces during obturation.

NOTE: Endo-Eze™ MTA Flow cement can be removed using standard mechanical retreatment techniques. Ultrasonic (i.e., Ultrawave® XS Piezo Ultrasonic Scaler) with proper retreatment ultrasound tips are recommended.

It will be creamy and homogeneous after mixing.

NOTE: Use Endo-Eze™ MTA Flow cement immediately after mixing, or insert into the clear skin deliver syringe. Do not leave the mixed cement for a prolonged period in contact with air, due to evaporation.

5. Using a metal cement spatula, gradually mix the gel into powder until the desired consistency is obtained. Thoroughly mix with the spatula to ensure all the powder particles are hydrated. Unlike other MTA cements, that use water and have a coarse sandy consistency, Endo-Eze™ MTA Flow cement will be creamy and homogeneous after mixing.

NOTE: Use the Endo-Eze™ MTA Flow cement immediately after mixing, or insert into the clear skin deliver syringe. Do not leave the mixed cement for a prolonged period in contact with air, due to evaporation.

6. Remove the cap and plunger of the clear skin syringe, take small portions of the mixed Endo-Eze™ MTA Flow cement with the mixing spatula and insert the cement in the back part of the barrel. Replace the plunger. Attach the selected tip securely onto Skinny syringe. Gently move the plunger to remove the air inside the syringe. Verify flow of cement prior to applying intraradically. If resistance is met, replace the tip and re-check flow. Use only recommended tips and do not reuse.

NOTE: Endo-Eze™ MTA Flow cement mixed and placed inside the clear skin syringe can be used for up to 15 minutes after mixing. Be sure no air is present inside the syringe.

7. Place the cement, using the designated tip, in the treatment site.

Applications:**Pulp Capping and Pulpotomy:**

1. Complete a cavity preparation outline under rubber dam isolation.

2. Excavate all carious tooth structure using a round bur at low speed, or use hand instruments.

For pulp capping:

a. Gently rinse the exposed pulp with sterile a saline solution.

b. Control hemorrhage with pressure on the exposed pulp using a cotton pellet moistened with saline.

For pulpotomy:

a. Remove all remnants of coronal pulp tissue to the level of the orifice of each root canal in multi-rooted teeth. In single-rooted teeth, remove the pulp to 2mm below the level of the cemento-enamel junction.

b. If hemostasis is not achieved with cotton compression, **Astringedent®** or **ViscoStat®** hemostatic solutions are recommended.

c. Dry the area.

3. Apply Consensis® antibacterial solution for 60 seconds. Do not rinse. Gently air dry.

4. Insert Endo-Eze™ MTA Flow cement on the pulp exposure or over the floor of the cavity preparation.

5. Remove excess material at the site with a dry cotton pellet.

6. After application, dry with a small blast of air. Place a flowable composite material (PefmaFlow®) or a resin-reinforced glass ionomer cement (UltraCem®) over the healing process.

8. DO NOT use Endo-Eze™ MTA Flow cement to fill completely a root canal (without gutta-percha points).

9. Endo-Eze™ MTA Flow cement may be placed on the occlusal. When placing a composite placement, do not etch the Endo-Eze™ MTA Flow cement, etch only the tooth.

7. Assess the pulp vitality at three-month intervals or as needed. Periapical status should be assessed by radiographic exams.

Repair and repair (Pulp Chamber)

1. Apply Consensis® antibacterial solution for 60 seconds.

Do not rinse. Gently air dry.

2. Place Endo-Eze™ MTA Flow cement into the defect. Depending on the access to the defect, a Navitip tip may be used.

3. Confirm the placement with a radiograph.

4. Remove excess material at the site with a sterile dry cotton pellet and gently air dry.

5. After application, dry with a gentle blast of air. Place a composite material or a glass ionomer restorative material over the Endo-Eze™ MTA Flow cement.

Root Resorption: (External resorption, initiated in the peridontium and invading the dental pulp space)

1. Apply Consensis® antibacterial solution for 60 seconds.

Do not rinse. Gently air dry.

2. Place Endo-Eze™ MTA Flow cement into the defect. Depending on the access to the defect, a Navitip tip may be used.

3. Confirm the placement with a radiograph.

4. Remove excess material at the site with a sterile dry cotton pellet and gently air dry.

5. After application, dry with a gentle blast of air. Place a composite material or a glass ionomer restorative material over the Endo-Eze™ MTA Flow cement.

6. Assess the pulp vitality at three-month intervals or as needed. Periapical status should be assessed by radiographic exams.

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4. Remove excess material at the site with a sterile dry cotton pellet and gently air dry.

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6. Assess the pulp vitality at three-month intervals or as needed. Periapical status should be assessed by radiographic exams.

Interactions with other dental materials:

None known.

Storage:

Store at room temperature (25°C/75°F); do not refrigerate.

Keep bottles tightly closed. Moisture will reduce the shelf life of the powder. Exposure of the gel will cause drying and possible formation of a film at the bottle tip.

1. Obtain the canal space apical to the defect with Endo-Eze™ MTA Flow cement in a thin consistency (see Table 1) and a gutta-percha cone.

2. Dispense Endo-Eze™ MTA Flow cement into the defect site. Depending on the access to the defect, a Navitip tip may be used.

3. Confirm the placement with a radiograph.

4. Rinse gently.

5. After application, dry with a gentle blast of air. Obtain the remaining canal space with preferred obturation technique.

NOTE: DO NOT use Endo-Eze™ MTA Flow cement or any MTA-based cements to repair cervical resorptions.

Apification (pulp chamber)

1. Apply the solution antibiotic Consensis® for 60 seconds.

Do not rinse. Squeeze air into the gutta-percha.

2. Place Endo-Eze™ MTA Flow cement into the defect. Depending on the access to the defect, a Navitip tip may be used.

3. Confirm the placement with a radiograph.

4. Remove excess material at the site with a sterile dry cotton pellet and gently air dry.

5. After application, dry with a gentle blast of air. Place a composite material or a glass ionomer restorative material over the Endo-Eze™ MTA Flow cement.

6. Assess the pulp vitality at three-month intervals or as needed. Periapical status should be assessed by radiographic exams.

Reparation de la paroi pulpaire (chambre pulpaire)

1. Appliquer la solution antibactérienne Consensis® pendant 60 secondes. Ne rinpez pas. Sécher à l'air.

2. Placez l'Endo-Eze™ MTA Flow dans le défaut. Selon la facilité d'accès au défaut, un embout Navitip peut être utilisé.

3. Confirmez la pose avec une radiographie.

4. Retirez l'excès de matériel au site avec une boule stérile de coton et rincez doucement.

5. Après application, séchez avec un petit jet d'air. Obtenez le reste du canal avec une obturation préférée.

NOTE: NE PAS utiliser l'Endo-Eze™ MTA Flow pour réparer les résorptions périapicales.

Réparation de la paroi pulpaire (chambre pulpaire)

1. Appliquer la solution antibactérienne Consensis® pendant 60 secondes. Ne rinpez pas. Séchez à l'air.

2. Placez l'Endo-Eze™ MTA Flow dans le défaut. Selon la facilité d'accès au défaut, un embout Navitip peut être utilisé.

3. Confirmez la pose avec une radiographie.

4. Retirez l'excès de matériel au site avec une boule stérile de coton et rincez doucement.

5. Après application, séchez avec un petit jet d'air. Appliquez le hydroxyde de calcium UltraCal XS et le gypse.

6. Obtenez le reste du canal avec une obturation préférée.

NOTE: NE PAS utiliser l'Endo-Eze™ MTA Flow pour réparer les résorptions périapicales.

Reparation de la paroi pulpaire (chambre pulpaire)

1. Appliquer la solution antibactérienne Consensis® pendant 60 secondes. Ne rinpez pas. Squeez air into the gutta-percha.

2. Placez l'Endo-Eze™ MTA Flow dans le défaut. Selon la facilité d'accès au défaut, un embout Navitip peut être utilisé.

3. Confirmez la pose avec une radiographie.

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