



15 CLINICAL EVALUATORS

152 TOTAL USES

90% CLINICAL RATING

**Key features:** MTA based root canal sealer • Pre-mixed, pre-filled injectable syringe

## Description

**Dia-Root™** is a bioactive root canal sealer:

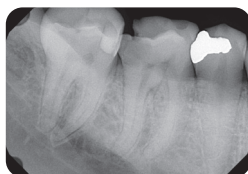
- Calcium Silicate-based (MTA)
- Direct canal delivery system
- Releases calcium ions
- Non-shrinking
- High pH (12) for antibacterial action
- Superior sealing ability due to washout resistance, low solubility, and superior adhesion between gutta percha points

## Indication

- Endodontic obturation

## Unique Attributes

- No mixing needed with this endodontic sealer, as it is a ready-to-use, pre-mixed bioactive sealer in an injectable syringe.
- This syringe features replaceable extended length tips. These tips are designed to inject the material directly into the root canal during obturation, starting apically and working coronal.



#30 Pre-op



#30 Post-op

Courtesy of Dr. Matthew Miller



## Clinical Tips

- Make sure not to extrude too much material directly into the canal. A little goes a long way.
- Make sure to use proper storage and packaging per the manufacturer's instructions.
- If you are concerned about possible apical extrusion, then just introduce a small amount into the canal and then use a hand file and to coat the walls of the canal.

**"READY TO USE WITH NO MIXING NEEDED."**

## Evaluators' Comments

"Material injects into the canal very easy, and the chamber stays clean and visible because of the tip."

"I liked this material because of its biocompatibility and ease of placement into the canals."

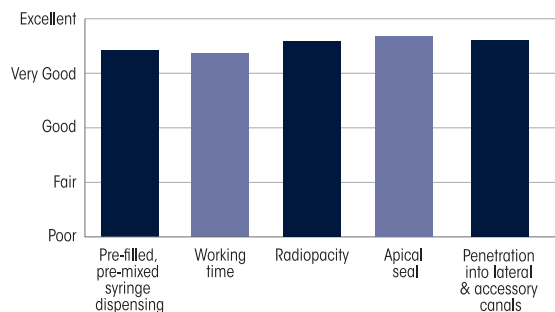
"With this material I was able to establish a great apical seal, and it had good flowability into lateral canals and complex anatomy."

"The delivery system was great."

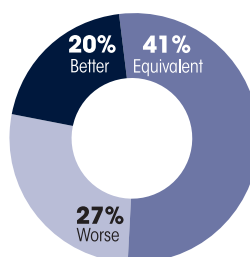
"Being MTA based, it does well in apically symptomatic cases."

"I liked to use this material only in cases where I was not concerned about overextension of sealer out the apex from direct injection."

### Evaluation Summary:



### Compared to Competitive Products:



### Consultants who would:

**73%** Recommend to a colleague

**Consultants who would want to stock in office:**

**20%** Yes, instead of current product

**47%** Yes, in addition to current product

**7%** No, however I might want to order it for certain cases

**NOTE:** Background information from the evaluation on this page is **provided for internal use only** and will not appear in the final report.

## Dia-Root™ BioSealer

### Some of the additional most-liked comments:

- Flowability of the material.
- It flowed very easily.
- Premixed syringe, radiopacity, and easy canal application.
- Ease of application, and flowability.
- The fact that it was MTA based.
- The re-engineered tips were better than the original ones.
- Easy to use.
- Great radiopacity.
- Ease of use.
- Ease of application into the canal.
- MTA, no refrigeration, ease of use, and pH of 14.
- I like the idea of dispensing from a syringe.

### Some of the additional least-liked comments:

- Worrying about overextension of the sealer.
- It flowed too easily and even though the tips were improved I believe there was too much waste.
- Sometimes the material would set in the tube prematurely even with proper storage.
- I did not like forcing endo paste into the canals. Maybe I am gun shy but if the Endo Apex is slightly open you can extrude too much paste out the end of the tooth.
- Packaging, I had material set up.
- The fact that in one of the syringes the material was set about 2 centimeters into the syringe rendering the syringe unusable.
- I get sealer running out past the apex sometimes.
- Material dried fast, there was not enough working time, and the intra canal tip still did not dispense the material unless we cut the beginning part of the tip.
- I couldn't dispense the sealer from the syringe.

### Suggestions for improvement comments:

- Make it a little thicker.
- The change in the tip design made a huge difference in the ability to extrude the material. I would like to see a more stable shelf life and storage if possible.
- I think they have a winner as is. If it ain't broke don't try to fix it.
- Offer a thinner consistency.
- Create a better seal on the original white plastic luer.
- Make the sealer resorbable when it gets past the apex.
- Change the tip or make the material more flowable so as to dispense easily into the canal.

### Clinical tips:

- Put it in and one cone. It's really pretty simple. Delivery isn't the issue at all.
- Be VERY CAREFUL in how you inject into canals...you might be sorry. :-(
- I recommend cold lateral condensation over sealer with a single cone.
- Be sure the material is smoothly flowing through the syringe BEFORE putting the tip on the syringe.
- Keep it sealed in its package and you're good to go.
- Cut about 1 millimeters of the tip before dispensing the material inside the canal.
- Cut the tip to help with dispensing

### Additional comments:

- It flowed into complex anatomy and lateral canals well.
- In large canals - it helps speed up the obturation process.
- Helpful in obturating lateral canals.
- It worked best with tapered gutta percha points.
- This was perfect in canines with very odd shaped canals.
- It's a good MTA sealer. I definitely see the value, but I don't know if I would change because of worries of overextension. I may use it selectively on cases where the seal is more important to me. I think proper endo doesn't rely on a sealer.
- I feel that the use of a syringe wastes a good deal of the cement. I also found that the cement was just too loose.
- I wish there was a way to know how much sealer you are injecting to avoid overfilling. Pushing a viscous solution through thin tips, deeply into thin canals is a problem waiting to happen. Even though there were no post-operative complications with **Dia-Root** sealer, the overfill "looks bad" and insurance companies will balk at payment for your hard work.
- There were no adverse reactions nor complications with any of the 7 root canals sealed with **Dia-Root**.

### What brand(s) of sealer do you normally use?

- AH-26
- AVALON
- BC
- Bioroot RCS
- Edge Endo or Avalon Biomed
- Kerr
- Kerr
- Kerr Tubli-Seal Xpress
- Mta
- MTA
- Sybron Endo
- SybronEndo SealApex
- Tubliseal (Kerr)
- Tubliseal and sealapex
- Ultradent

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## Dia-Root™ BioSealer

Ease of placement into canals .....	4.2
Flowability .....	4.1
Film thickness .....	4.1
Pre-filled, pre-mixed syringe dispensing .....	4.3
Working time .....	4.2
Setting time .....	4.0
Storage .....	4.4
Radiopacity .....	4.5
Apical seal (skip if you feel you cannot determine) .....	4.6
Penetration into lateral & accessory canals (skip if you feel you cannot determine) .....	4.5
Manufacturer's instructions for use .....	4.5
Packaging .....	4.3
<b>Overall rating: .....</b>	<b>3.9</b>

### Editor's note:

*During our editorial board meeting there were several comments that there is a setting issue. Almost every board member that evaluated this material had an issue with it setting in the syringe and having unusable material. We confirmed that they were storing it according to manufacturer's instructions.*