

## TOTAL FILL BC SEALER INFO COLLECTION

### Videos

<http://www.fkg.ch/media-center/videos>

Clinical tips below have been approved by Prof. Martin Trope and Prof. Gilberto Debelian. Please consult the official user manual first.

### TOTAL FILL BC sealer, obturation

#### Cold obturation with BC master point

*Warm vertical or cold use?*

The sealer is dimensionally stable and does not shrink so it works very well with cold techniques. Think of it as a warm technique but the sealer is being moved as opposed to the gutta-percha. Warm techniques are less necessary than before but good for certain cases, and Total Fill Pellets are available (see "warm vertical obturation").

*May I finish my case after obturation with TOTAL FILL BC sealer? Which material to use?*

Yes you may, basically you use the same procedure as with other sealers. You should use an appropriate permanent filling and ideally apply this material just below the bone level, to avoid microbial leakage through the sulcus area.

*Cutting TOTAL FILL BC point coronally*

There are various ways to cut the points coronally, most elegant is using a heat plugger with a heat source such as B&L Alpha unit. The area where the point is cut coronally will be warm and can be condensed with a hand plugger (condenser).

#### Warm vertical obturation

*Q: Can I do warm vertical obturation with TOTAL FILL BC sealer?*

Most cases can be successfully treated with cold TOTAL FILL BC gutta percha and sealer, however, in some cases, or if the clinician is already used to warm technique, BC pellets are available for warm vertical obturation.

Once the sealer comes into contact with heat it will not flow as well as when it is cold. Therefore make sure all excess sealer is removed from the access area before applying heat. Also its best to use heat at about 150 degrees for the backfill.

### *Q: Removing heat plugger*

After using heat plugger with Alpha unit, when pulling out the heat plugger, the top part of the point does not come out well (standard gutta works better) but sticks to the wall. How to do this?

A: TOTAL FILL BC Points are Gutta Percha, but due to the impregnation with bioceramic particles, they will behave a bit different. Good heat plugger fitting before application of sealer is best. You may want to "play" with the temperature of the heat plugger, depending on the brand of warm obturation unit you use.

### **Retreatment**

Retreatment is done in the same way as when conventional sealers are being used. You can use rotary NiTi instruments in combination with heat and/or ultrasonics to remove TOTAL FILL BC points, which are in essence Gutta Percha, but with bioceramic particle impregnation. The sealer when set is stable and does not soften with solvents. Once the gutta-percha has been removed (by conventional means), the sealer may be removed with files. If the sealer is present apical to the BC gutta-percha point, it is relatively easy to remove with an ultrasonic instrument.

## **TOTAL FILL RRM products, root repair**

### **Direct pulp capping**

#### *Direct pulp capping, exposed pulp*

This can be necessary when there is a very large area of decay and the clinician exposes the vital pulp. TOTAL FILL RRM, especially putty, is very well suited and easy to use with a minimum of waste. The behaviour of TOTAL FILL RRM is similar to standard MTA which has slow setting and needs moisture to set, therefore, for larger amounts of putty, 2 sessions may be better (advantage to be able to control setting, check with patient on pain), same as when using MTA.

Doctors who mention faster setting MTA are talking about the Brazilian MTA (Angelus) which is a quick set like Biodentine. However no studies prove that it has the same properties as the original slow set MTA. Of course we would also like a quicker set but the problem is to get the same positive properties that the continual humid environment provides for the original Bioceramic (MTA).

#### *Procedure, for most exposures in 1 session*

- Use rubber dam > control bleeding.
- Use your high speed bur at a very high speed and copious water supply to prepare a flat base.

- Total Fill RRM putty should be used as a base material, meaning it should cover sound dentin for about 3mm around and it should be 2-3mm thick (therefore the putty is easier to use than the more fluid TOTAL FILL RRM syringe).
- You should gently push the TOTAL FILL RRM material slightly into the lesion and then onto surrounding sound dentine.
- Application with a sterile instrument.
- Total Fill RRM Putty does not set fast enough for the clinician to wait, but will set over time with the humidity supplied by the dentine.
- Apply a bonding agent to dentin surrounding the BC material avoiding the bioceramic as best you can.
- Gently cover over the bioceramic and treated dentine with a flowable base material.

#### *Procedure, large exposures, larger amount of putty, 2 sessions*

- Use rubber dam > control bleeding.
- Use your high speed bur at a very high speed with copious water supply to prepare a flat base.
- Total Fill RRM putty should be used as a base material, meaning it should cover sound dentin for about 3mm around and it should be 2-3mm thick (therefore the putty is easier to use than the more fluid TOTAL FILL RRM syringe).
- Gently push the TOTAL FILL RRM material slightly into the lesion and surrounding dentine.
- Application with a sterile instrument.
- Total Fill RRM Putty does not set fast enough for the clinician to wait, but will set over time with the humidity supplied by the dentine. So apply cotton pellet with moisture to supply moisture, then add temporary filling.
- After one week, 2nd session, remove cotton pellet, finish case by applying first glass ionomer, setting, then composite.

#### **Perforations**

TOTAL FILL RRM materials, both syringe and putty, are suitable to repair root defects from the inside and under the bone level; root defects from the outside are best repaired with composite.

In terms of healing, it really does not matter if you apply TOTAL FILL RRM syringe or putty, it is more a question of handling. As long as you can reach the area well with a sterile plugger, use putty.

TOTAL FILL RRM syringe can be placed with Gutta Point, or a small instrument, but in most cases the supplied applicator tip is better.

During root canal treatment, of course always first seal the perforation, and then carry out the root canal treatment to avoid irrigants being pushed through the perforation.



### *Procedure, perforations*

- Use rubber dam > control bleeding if there is any.
- Seal perforation with TOTAL FILL RRM syringe and/or putty, then cover the area with a fast-setting cement (IRM, KETAC, glass ionomer cement). Do not use composite as the etching agent may be difficult to control, it is also very difficult to work with composite in these hard-to-reach areas.
- With perforations 2 sessions is suggested, apply humid cotton pellet to provide humidity for setting of TOTAL FILL. After 48 hrs to 1 week, recall patient and continue with root canal treatment.

### **TOTAL FILL RRM syringe info**

TOTAL FILL RRM syringe has two main applications:

- To mix with and reduce the viscosity of TOTAL FILL RRM putty.
- Apical surgery, to apply inside the root canal before using TOTAL FILL RRM putty to cover the end of the root.