SUPPLEMENTAL MATERIAL

MANUFACTURER INSTRUCTIONS (AS IS IN PACKAGE INSERT)

Dycal®:

1.1. Under rubber dam isolation, complete cavity preparation outline using high-speed burs under constant water-cooling.

1.2. If caries is present, completely excavate using low-speed and/or hand instrumentation.

1.3. Rinse the cavity and exposure site(s) with 2.6%-5% NaOCl. Heavy bleeding may be controlled with a cotton pellet moistened with sterile saline.

1.4. Gently dry preparation with cotton pellet. Avoid desiccation.

1.5. Dispense equal volumes of base and catalyst pastes on the parchment paper pad provided. Replace container caps. Using a Dycal® Liner applicator, stir immediately to mix thoroughly until a uniform color is achieved. Do not over-spatulate. Complete mixing within 10 seconds.

NOTE: Do not attempt to control the setting time by increasing or decreasing the amount of catalyst dispensed.

1.6. Using the ball-pointed Dycal® Liner applicator or similar instrument, place the mix directly on the exposed pulp and cavity dentin judged to be less than 1.0mm remaining thickness in a thin layer. Avoid placing Dycal® Liner on enamel or the margins of the cavity. Avoid placing a large bulk of material. Material thickness should be approximately 0.8mm-1mm.

1.7. Allow the Dycal® Liner to completely set. The mixed material will set in approximately 2-3 minutes on the mixing pad under normal room conditions (70°F with 50% relative humidity). Set time is shorter in the mouth due to moisture and temperature.

1.8. Remove any set excess from retention areas, enamel, and/or margins with a sharp spoon excavator or a bur.

1.9. Place desired adhesive, base, and/or restoration following manufacturer's directions.

1.10. At the next appointment, assess the pulp vitality. Pulp vitality and status should be assessed radiographically every three to six months or as needed.

www.content.pattersondental.com/items/PDFs/images/114175.pdf

Mineral Trioxide Aggregate:

1. Sterilize a glass slab, a metal spatula and all instruments for the insertion of MTA ANGELUS®;

2. Mix for 30 seconds the content of 1 sachet of MTA ANGELUS® (or 1 spoon of MTA ANGELUS®) with 1 drop of distilled water. The mixture should be homogeneous and with a consistency similar to wet sand;

3. Place the cement on the selected site with a sterilized amalgam carrier or other appropriate instrument;

4. Condense the cement with instruments such as amalgam condensers, a number 1 spatula or absorbent paper points moistened with distilled water.

http://www.angelusdental.com/img/arquivos/bull_mta_angelus_white.pdf

EndoSequence Root Repair Material:

1. Once an exposure occurs, wash and disinfect the area thoroughly, control hemostasis, and prepare the exposure site for repair with EndoSequence Bioceramic Root Repair Material.

2. Place an adequate amount of the EndoSequence Bioceramic Root Repair Material over the perforation using a plastic instrument and remove excess with a curette and/or micro brush.

3. It is recommended to fill the entire cavity with a reinforced glass ionomer core material and observe the tooth for 4-6 weeks prior to final restoration with a composite material. The glass ionomer core can be used as a base during the subsequent visit.

http://media.brasselerusa.com/userfiles/IFU%2CManuals%2CBrochures/IFU-0021%20Brasseler%20USA%20ES%20RRM%20IFU%20REV%20B.pdf

BIODENTINE:

Biodentine™ mixing instructions:

1) Take a capsule and gently tap it on a hard surface to loosen the powder.

2) Open a capsule and place it on the white capsule holder.

3) Detach a single-dose container of liquid and gently tap on the sealed cap to force all the liquid

down the container.

4) Twist cap to open. Be careful that no drop of liquid falls out of the single dose container.

5) Pour 5 drops from the single-dose container into the capsule.

6) Close the capsule. Place the capsule on a mixing device, such as Technomix, Tac 400 (Lineatac),

Silamat, Cap-Mix, Rotomix, Ultramat etc., at a speed of 4000 – 4200 rotations/min.

7) Mix for 30 seconds.

8) Open the capsule and check the material's consistency. If a thicker consistency is preferred, wait

for 30 sec to 1 min before checking again. Do not exceed the working time.

9) Collect Biodentine™with the instrument supplied in the box. Depending on the desired application, you may handle Biodentine™ with an amalgam carrier, a spatula or a Root Canal Messing Gun. Rapidly rinse and clean the instruments to remove any residual material.

Procedure: Assess pulp vitality by the usual tests: Biodentine™ is not indicated for the treatment of teeth with irreversible pulpitis

1) Isolate the tooth with a rubber dam.

2) Remove the infected dentine with a round bur and/or a hand excavator. Leave the affected dentine.

3) Adapt a matrix around the tooth if a wall is missing.

4) If there is bleeding in the pulp, hemostasis must be achieved before applying Biodentine™.

5) Prepare Biodentine™ as indicated above (Biodentine™ mixing instructions).

6) Place Biodentine™directly on the exposed pulp without condensation. Ensure good adaptation

to the cavity walls and margins.

7) Model the surface of the restoration.

8) Wait until the end of the setting time of the material before removing the matrix.

9) To optimize the mechanical properties of the material and facilitate removal of the matrix, a

varnish can be applied onto the surface of the restoration.

10) Check occlusion.

11) Within one week to six months after placement of Biodentine™, prepare the cavity according to the criteria recommended for the selected restorative material (composite, inlay/onlay, amalgam). The remaining Biodentine™ material can be considered as sound artificial dentine and permanently left in deep areas of the cavity and in areas adjacent to the pulp chamber.

https://www.septodont.in/sites/in/files/2016-12/Biodentine%20S%2005%2098%20268%2020%2000.pdf

(INVESTIGATOR COMMENTS: We mixed the material and performed pulp capping on the exposure site as instructed. However, we did not fill the entire cavity with Biodentine. We used Glass Ionomer restorative, which was the standard for all four groups.)

Glass Ionomer GC Fuji Type IX

a)Prepare the tooth using standard techniques. Extensive mechanical retention is not necessary.

For pulp capping, use calcium hydroxide.

b)Apply GC DENTIN CONDITIONER (20 seconds) to the bonding surfaces using a cotton pellet or

sponge.

c)Rinse thoroughly with water. Dry by blotting with a cotton pellet or gently blowing with an air syringe. DO NOT DESICCATE. Best results are obtained when prepared surfaces appear moist (glistening).

d)Mix the required amount of GC Fuji IX GP. Working time is 2 minutes from the start of mixing at 23°C (73.4°F). Higher temperatures will shorten working time.

e)Transfer cement to the preparation using a syringe or other suitable instrument. Avoid air bubbles.

f) Form the preliminary contour and cover with a matrix if required.

g) When set, immediately apply GC Fuji VARNISH (blow dry).

https://www.gcamerica.com/products/operatory/GC_Fuji_IX_GP/FujiIXGP_IFU.pdf