Bioceramic Root Repair RetroMTA®



RetroMTA_Synthesis and hydration behavior of calcium zirconium aluminate (Ca7ZrAl6018) cement

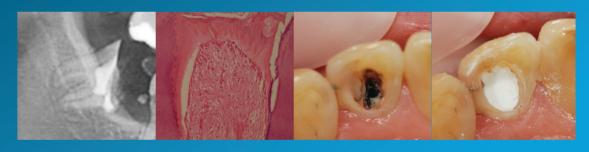
Eun-Hee Kang a, Jun-Sang Yoo b, Bo-Hye Kima, Sung-Woo Choi a, Seong-Hyeon Hong a,* a Department of Materials Science and Engineering, Research Institute of Advanced Materials, Seoul National University, Seoul 151-744, South Korea

b Department of Oral & Maxillofacial Surgery, School of Dentistry, Seoul National University, Seoul 110-749, South Korea

Perforation Repair

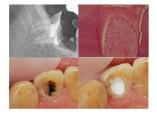
Bactericidal pH 12.5, Calcium hydroxide effect
Sealability Bacterial entombment and fossilization
Biocompatibility New cementum formation
Fast setting 3-min, No-washout & 1-visit treatment
No discoloration Base for esthetics





BioMTA

2.4g Refill Pack 0.3g x 8caps





Indications?

For pulp capping, external resorption, coronal perforation, retrograde filling after apicoectomy, apexification and other root repair treatments that needs fast-setting MTA material.

Differences with other MTAs?

RetroMTA is made of Calcium Silicate Bioceramic material not Portland Cement. Mainly for root repair that doesn't discolor the tooth and sets in 3 minutes.

Setting time and compressive strength?

Initial setting time is 3 minutes. Do not pack repeatedly after placement of material with instruments because it wil interfere the setting reaction.

Final setting time is 4 hours. Compressive strength after final set is about 100 MPa.

Treatment and prevention of discoloration?

 $\label{thm:continuous} \mbox{Treatment}: \mbox{Removal of discolored area and place RetroMTA}.$

Prevention: Placement of RetroMTA as base material.

Prevention from being washed-out (Solution to faster setting of MTA)?

Too watery: Gently press with dry cotton pellet for 120 seconds. Too powdery: Gently press with wet coton pelet for 120 seconds.

Irrigation with NaOCI will wash out remaining particles. Do not use EDTA because it interferes with setting action.

When is it used as base?

Pin point exposure of pulp on deeply prepared cavity. Place 2-3mm thickness of RetroMTA base and then resin.

Used for root canal filling material?

Can be used in anterior teeth where esthetics is important.

When used in open apices?

When apices are large, place a collagen sponge and then fill with RetroMTA to prevent excessive overfilling.

Pulpotomy?

May be used for both primary and permanent teeth.

For permanent teeth 1) (-) Hot/cold test 2) (-) Percussion 3) (-) Palpation are candidates for pulpotomy.

Method used for safe extraction of 3rd molar?

Do coronectomy above CEJ and then place RetroMTA on the orifices of the root. After 3 months, extraction can be performed after confirming that the roots are separated with IAN.



