

DIA-ROOT™ BIO SEALER

Bioceramic Root Canal Sealing Material

FEATURES

DIA-ROOT™ BIO Sealer is a bioceramic MTA-based (Calcium Silicate-based), non-shrinking root canal sealer. It is used for the permanent obturation of root canals and suitable for all obturation techniques involving gutta-percha.

► High Biocompatibility:

- _ Tissue healing with little inflammation
- _ Produces Calcium Hydroxide and Calcium Silicate Hydrate
- _ High pH for antibacterial action (pH 12)
- _ Induces hard tissue regeneration in sites with microbial activity

► Perfect Sealing Ability:

- _ Perfect sealing ability for multiple and lateral root canals
- _ Superior adhesion between Gutta Percha Points and Dentin
- _ No Shrinkage or expansion

► Low Solubility:

- _ Low solubility(0.95%) to maintain an excellent sealing effect inside the root canal
- _ Washout resistant prevents micro leakage

► Optimal Flowability:

- _ Flow rate of 22mm : Completes apical sealing
- _ High flow rate and low film thickness ensures easy penetration into lateral and accessory canals

► Pre-mixed for easy, Convenient and Fast application:

- _ Ready to use formula in a prefilled and injectable syringe
- _ Adequate setting time (6 hours)

► Easy to store:

- _ Can be stored over 6 months after use
- _ Does not harden easily and reduce waste of materials to a minimum



BENEFITS

🔍 High Biocompatibility

- Tissue healing with little inflammation
- Induces hard tissue regeneration in sites with microbial activity

🏠 Superior Sealing Ability

- Washout resistant with Low solubility
- Superior adhesion between Gutta Percha Points and Dentin

🛡️ Outstanding Antibacterial Action

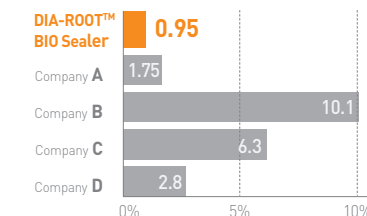
- Produces Calcium Hydroxide and Calcium Silicate Hydrate
- High pH for antibacterial action in the root canal (pH 12)

📊 Excellent Radiopacity: 8.1mm Al

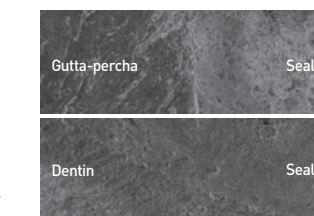
Test Results :
Pass

- ✓ Cytotoxicity
- ✓ Oral mucosal irritation test
- ✓ Pyrogen test
- ✓ Acute systemic toxicity test
- ✓ Sensitization test

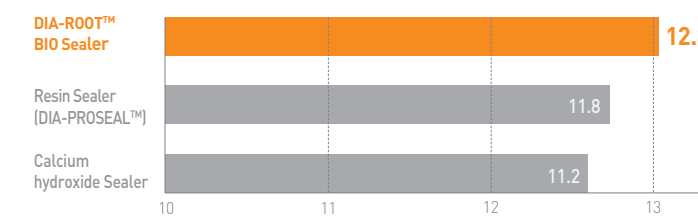
Solubility



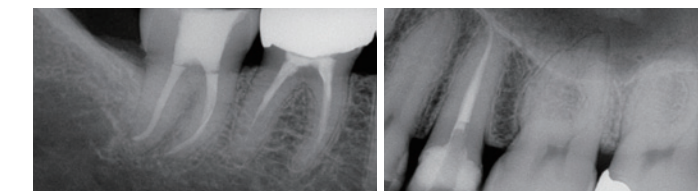
Excellent Adhesion Property



pH Test

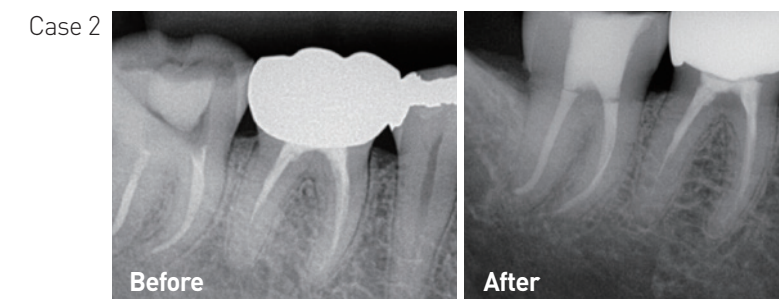
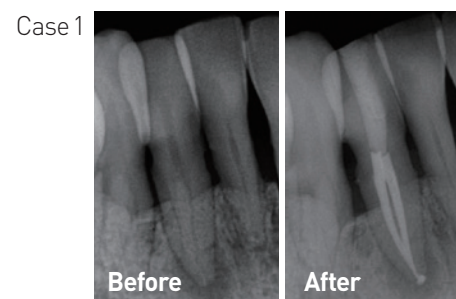


Radiopacity



CLINICAL CASES

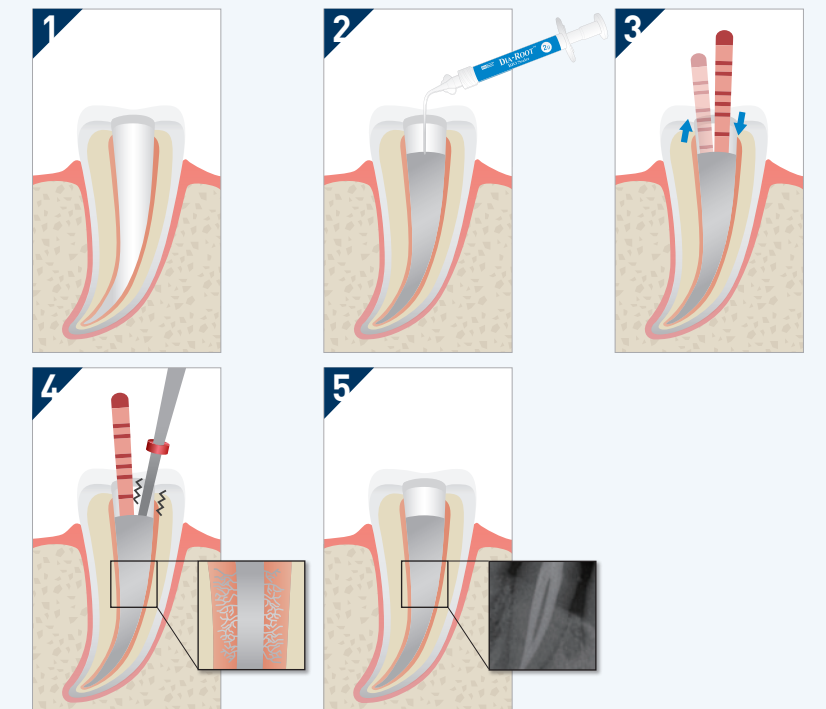
Complete root canal sealing without tissue irritation



TECHNIC GUIDE

SINGLE CONE TECHNIC

- 1 Prepare the root canal, cleaned and dried.
- 2 Apply DIA-ROOT™ BIO SEALER by the coronal third of the canal.
- 3 Fill the root canal with selected Gutta Percha cones and lightly pump the Gutta Percha cones up to the root canal to fill up the Apex.
- 4 Cut the master cone at the desired level with **DUO-PEN** and remove the surplus sealer from the root canal.
- 5 Complete root canal treatment.



TRADITIONAL TECHNIC WITH ROOT CANAL OBTURATION DEVICE

- 1 Prepare the root canal, cleaned and dried.
- 2 Apply DIA-ROOT™ BIO SEALER by the middle third of the canal.
- 3 Fill the root canal with selected Gutta Percha cones and lightly pump the Gutta Percha cones up to the root canal to fill up the Apex.
- 4 Cut the master cone at the desired level with **DUO-PEN**.
- 5 Condense the Gutta Percha cones with **DUO-PEN** and fill melted Gutta Percha in the rest of canal by **DUO-GUN**.
- 6 Complete root canal treatment.

