FKG
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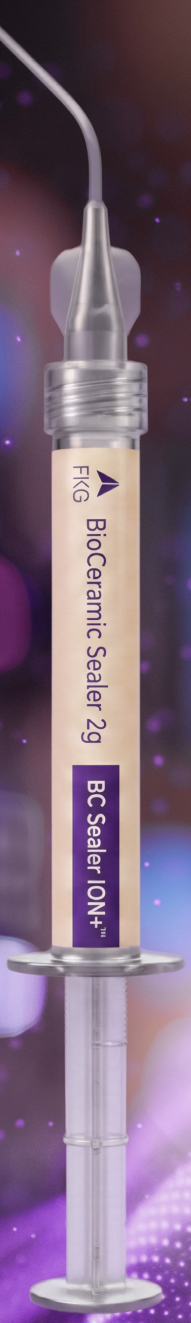
Change the Game

Take Bioactivity To the Next Level



Bioactivity
Tissue Repair Support
Flowability

The new generation
of bioceramic sealers.

BC Sealer ION+™

Obturation

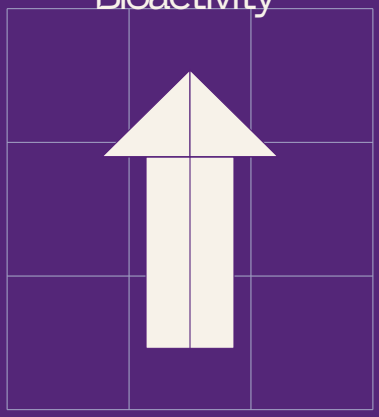
Next Generation of bioactive technology



BC Sealer ION+ features Akermanite-based bioceramic technology, advancing beyond conventional calcium-silicate chemistry by incorporating magnesium into its composition. This enables dual-ion release and broader ionic activity, supporting biomineralization and favorable conditions for tissue repair.

Main Benefits

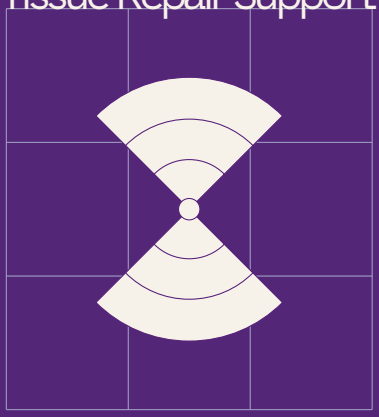
Bioactivity



Dual-ion activity

Ca^{2+} + Mg^{2+} ion release supports biological processes associated with tissue repair.[1-2]

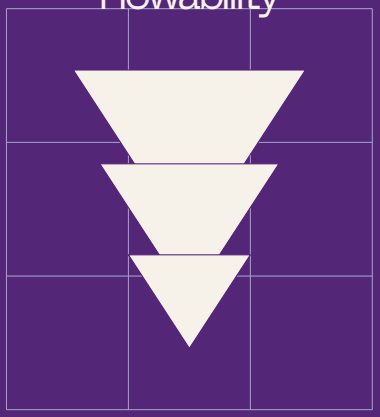
Tissue Repair Support



Sustained ion release

Supports favorable conditions for healing through gradual and sustained ion release.[3-4]

Flowability



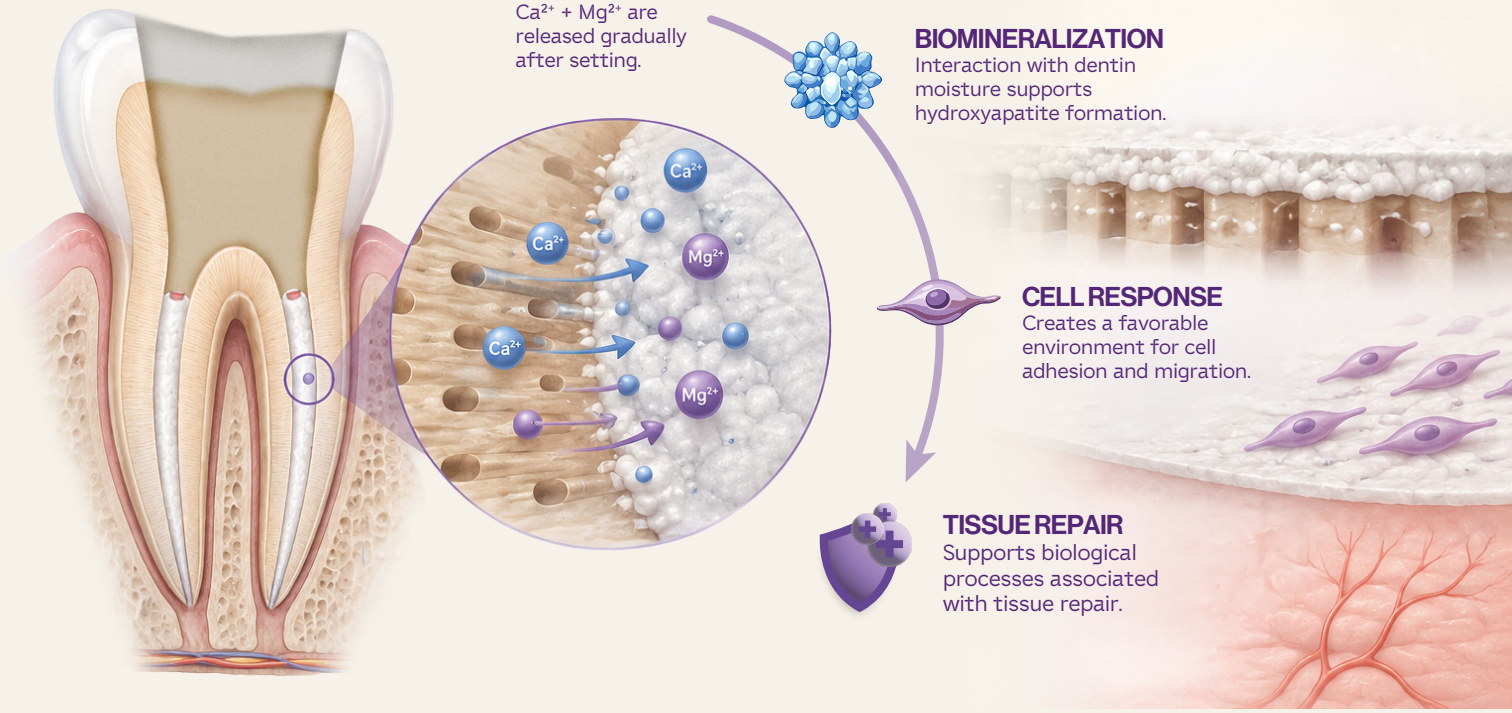
High tubular penetration

Reaches dentinal tubules even in complex root canal anatomies.[5-6]

- Dual bioactivity
- Premixed
- Resin-free
- Cold and warm techniques
- Low solubility

The Science Behind ION+™

Calcium and magnesium ion release work together to support biological processes associated with tissue repair.





ION+ TECHNOLOGY

releases calcium and magnesium ions in a sustained way after setting, interacting with dentin and surrounding tissues.

Ca²⁺

CALCIUM

- Contributes to processes associated with healing and cementum formation.
- Contributes to hydroxyapatite deposition and biological processes associated with tissue repair.

Mg²⁺

MAGNESIUM

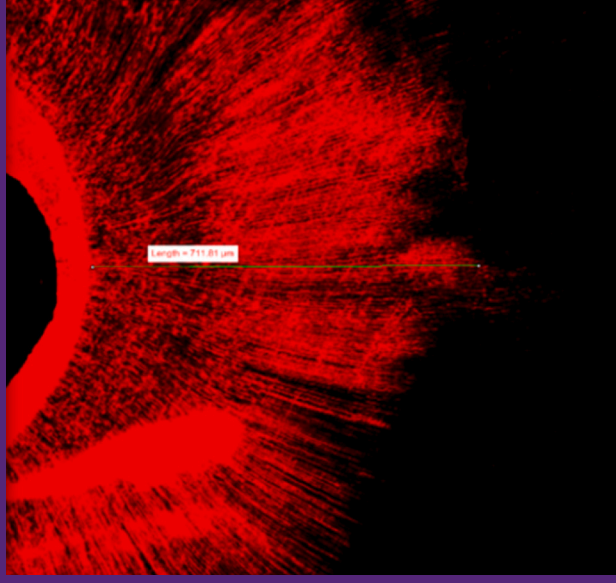
- Support cellular activity associated with biomineralization.
- Contributes to dual ion bioactivity alongside calcium.

High Flowability High Tubular Penetration

In an in vitro study, BC Sealer ION+ demonstrated greater dentinal tubule penetration than the other sealers evaluated.

Section	BC Sealer ION+	
	Mean	SD
Coronal	1184.69	207.09
Middle	997.03	165.92
Apical	638.26	239.79

Verma et al., 2024. Table 3 (adapted) - Comparison of dentinal tubule penetration between each section of three groups (inter-group comparison).[6]



Verma et al., 2024. Fig. 4a
CLSM examination revealed that the BC Sealer ION+ penetrated the tubules smoothly and consistently, with fewer gaps.[6]

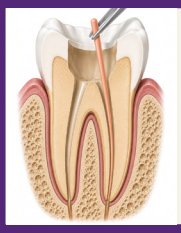
New Product. Established Technology.

ION+ combines next-generation bioceramic innovation with technology already established in the U.S. market, supported by published research and clinical case experience.

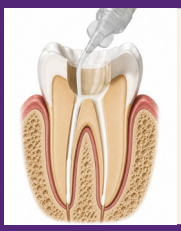
Protocol of Use

One product for both warm and single cone obturation techniques.

Single Cone Technique



Fit the master cone
Select and fit a gutta-percha master cone to the prepared canal, confirming apical tug-back.



Apply the bioceramic sealer
Apply a small amount of bioceramic sealer in the middle third of the root canal, using a gentle pressure and gradual syringe withdrawal to ensure uniform sealer distribution while minimizing excessive extrusion beyond the apex.



Insert the cone and seal
Coat the master cone with sealer, insert it to working length, remove excess gutta-percha at the canal orifice, and seal the access cavity.

Warm Vertical Compaction Technique



Place the master cone
Fit the master gutta-percha cone with bioceramic sealer to working length.



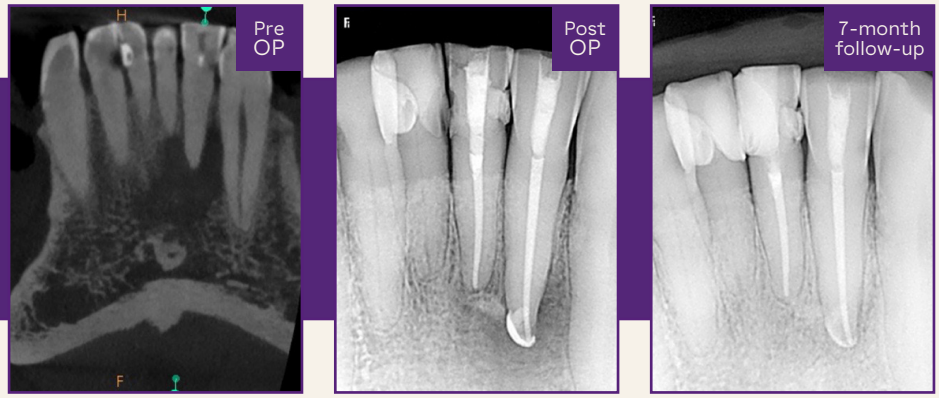
Create the apical plug
Use a heated plugger to soften and remove a small portion of gutta-percha, then vertically compact the remaining material to create a dense apical plug.



Backfill and compact
Add small increments of thermosoftened gutta-percha, compacting each increment vertically until the canal is completely filled. Remove excess material and seal the access cavity.

Clinical Cases

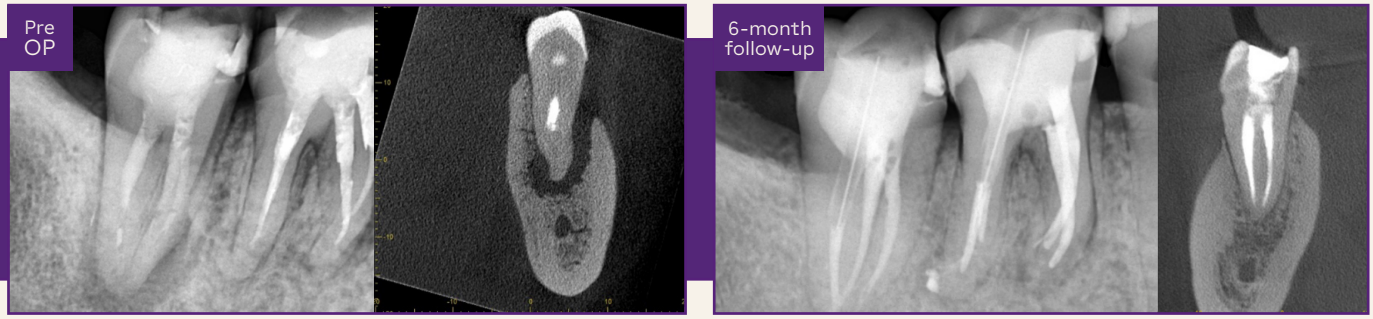
Follow-up cases demonstrate radiographic changes over time following endodontic treatment with BC Sealer ION+.



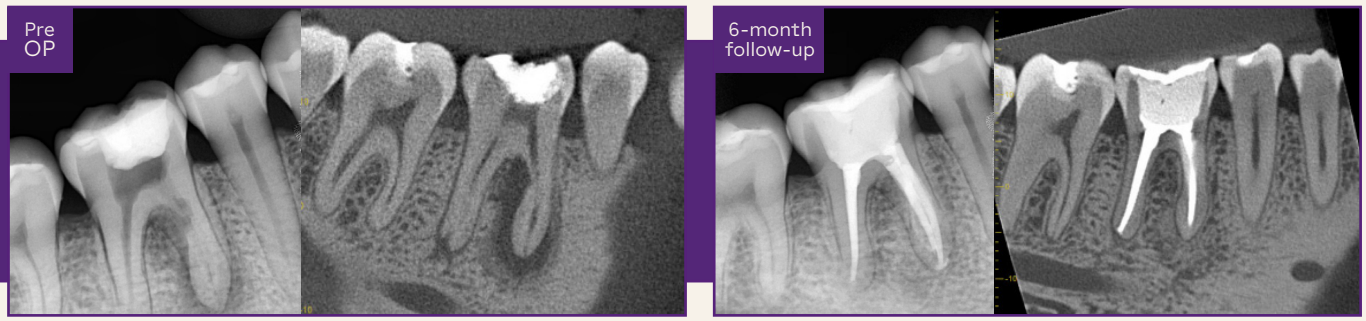
Courtesy of Prof. Key Fabiano.



Courtesy of Prof. Chafic Safi.



Courtesy of Prof. Luiz Fernando Tomazinho.



Courtesy of Prof. Luiz Fernando Tomazinho.

Individual results may vary.

What Clinicians Are Saying



BC Sealer ION+ combines excellent handling with the clinical reliability I expect from a modern bioceramic sealer. Its smooth consistency and predictable delivery make obturation efficient and straightforward, and it has become a trusted part of my daily endodontic practice.

Dr. Chafic Safi

In addition to offering a combination of predictability and simplicity in my daily practice, I see ION+ Sealer as an evolution in the bioceramic sealer category. Its differentiated formulation was developed to enhance the properties we already value in these materials. This gives me the confidence to work with a sealer that combines clinical practicality with highly favorable biological properties.

Dr. Kleber Carvalho





I had been achieving excellent clinical outcomes with bioceramic sealers. In my clinical experience, I have observed favorable healing responses with ION+ technology.

Dr. Luiz Fernando Tomazinho

I can confirm that in vitro testing observed osteoblast differentiation and proliferation with ION+; in the tested conditions, results were slightly greater than with the comparator BC Sealer. This is particularly true in magnesium-free conditions where only ION+ really promotes proliferation and differentiation of these cells. These findings reinforce the role of Mg^{2+} and support the use of ION+ since this is the only product I know of that provides it.

Dr. Anibal Diogenes



Presentations



08.650.00.015.XX
BC Sealer ION+ 2 g - 1 pouch with 1 syringe with 2 g, 20 applicator tips.

08.650.00.017.XX
ION+ Applicator Tips - 20 units.

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Embrace
Change
Empower
Endo

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