

Bio-C[®] Repair

Bioceramic reparative material ready to use (putty)



3

Reasons to use BIO-C[®] REPAIR

1

Ready-to-use/putty

Easy to use and insert into cavity.

2

High Release of calcium ions

Stimulates tissue regeneration.

3

High alkalinity (pH ~ 12)

Bactericidal action.

Repair and Regeneration!



More than biocompatible!

BIO-C® REPAIR

Bioceramic reparative material ready to use (*putty*).

INDICATIONS

- Treatment of root or furcation perforation via canal;
- Treatment of root or furcation perforation via surgery;
- Treatment of internal resorption via canal;
- Treatment of communicating internal or external resorption via surgery;
- Retrofilling in endodontic surgery;
- Direct and indirect pulp capping;
- Apexification;
- Apexogenesis and Pulpotomy.



Definition

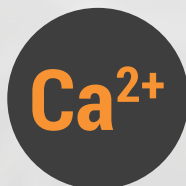
BIO-C® REPAIR is a ready-to-use bioceramic repair cement (*putty*).

The **ready-to-use** presentation in a screw-in syringe facilitates the removal of the product for application at the preparation site, simplifying this procedure with great time savings.

In addition to its ease of use, it offers all the benefits of bioceramic formulation: induction of **tissue regeneration** through the release of Ca^{2+} ions resulting in the formation of mineralized tissue, **bactericidal action** due to its high pH, **inhibition of bacterial infiltration** by setting expansion and chemical adhesion to dentin. As a result, safety and high rates of success in endodontic treatment are obtained.



Ready-to-use/
putty



Release of calcium ions



Bactericidal

Composition

COMPONENT	FUNCTION
Tricalcium Silicate (C ₃ S)	Mechanical resistance over time Calcium ions release
Dicalcium Silicate (C ₂ S)	Mechanical resistance over time Calcium ions release
Tricalcium Aluminate	Initial setting
Calcium Oxide	Calcium ions release
Zirconium Oxide	Radiopacity
Silicon Oxide	Rheology agent
Polyethylene Glycol	Dispersing agent
Iron Oxide	Pigmentation

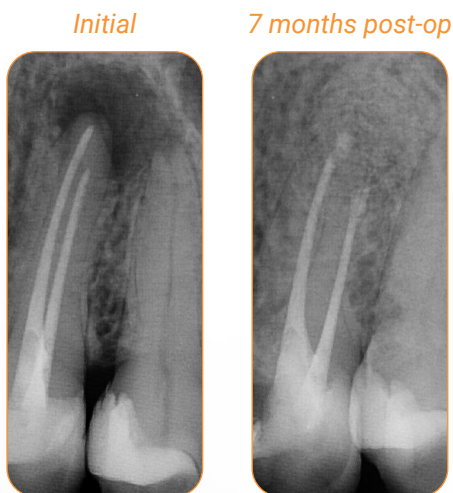
Key Features and Benefits

Ready-to-use (putty)

Easy to use screw-in syringe.

Release of Ca²⁺ ions

Promotes biomineralization by providing rapid tissue regeneration.



Images courtesy of Dr. Vicente Rocha.

Bactericidal (pH ~ 12)

Promotes local decontamination.

Setting Expansion (0.092 ± 0.05%)

Prevents bacterial infiltration.

Chemical adhesion to dentin

Formation of a zone of mineral infiltration promoting a biological seal.

Radiopacifier Zirconium Oxide

More than 7 mm Aluminum step-wedge. Great radiographic visualization. Does not stain.

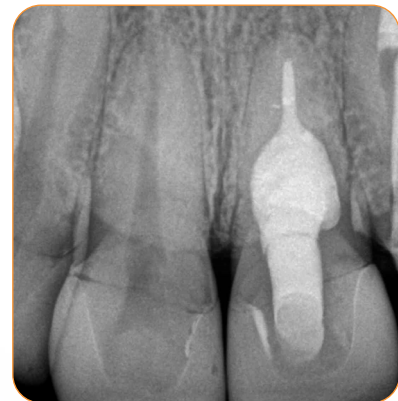


Image courtesy of Dr. Vanessa Pandolfi.

Non-resinous composition

It allows use in humid environments without loss of properties, especially in surgeries where humidity control of the operative field is a challenge in the procedure.

Hydrophilic

Absorbs moisture from the medium by starting the setting process.

Non-toxic

Contains no heavy metals.

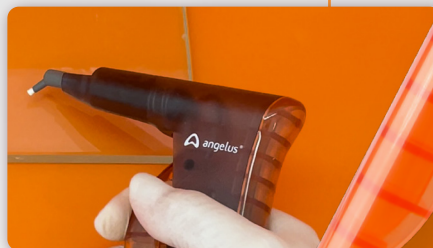
Micronized particles (< 2 µm)

Higher reactivity, accelerating the healing process and greater penetration into the dentinal tubules.

Agility with efficiency



- **Single dose presentation**
The ideal dose for clinical practice
- **Ease of use**
Provides use via **Speed Gun**
- **Premixed/putty**
Easy to use and insert into cavity



Check the availability of the Speed Gun in your country.
It can be replaced by another dental material application gun.

The BIO-C® REPAIR comes packaged in a syringe with a threadable piston. It allows removal of the product from the syringe in small portions with no effort or waste.



Technical data

Setting time*	≤ 120 minutes
Radiopacity*	≥ 7,0 mm Al
pH	~12
Particles Size	< 2 µm
Solubility*	Inferior to 3%
Setting Expansion	0.092 ± 0.05%
Resistance to Compression	7.933 ± 3.284 MPa

*Norma ISO 6876:2012.

Mechanism of Action

When it comes into contact with water present in the dentin tubules, BIO-C® REPAIR forms $\text{Ca}(\text{OH})_2$ that interacts with tissue fluids and dissociates and releases Ca^{2+} and OH^- ions.

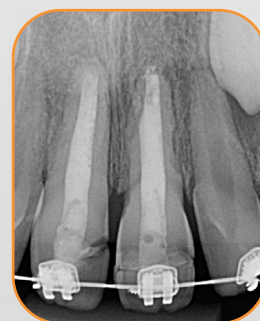
The released Ca^{2+} ions react with CO_2 from the bloodstream forming CaCO_3 granules (calcite), stimulating fibrinectin conditioning. Fibroctin stimulates cell adhesion and differentiation that results in the formation of hard tissue.

The release of OH^- ions promotes an increase in pH making the alkaline medium responsible for the bactericidal action of BIO-C® REPAIR.

Clinical Cases



Images courtesy of Dr. Vicente Rocha.



Images courtesy of Dr. Maria Cristina Carvalho.

Simplified!

Customer Service

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