Obturation Success for Everyone





BioRootTM Flow

Bioceramic Root Canal Sealer



BioRoot[™] Flow makes obturation easy

Ready-to-use syringe

- Easy and fast: no preparation time
- Consistent viscosity all the time
- Warm or cold obturation

Direct intra-canal delivery

- 21 gauge bendable tip
- Ensures adaptation to all root canals
- Limits the risk of overfilling

BioRoot[™] Flow

Keep your technique

- Keep your preferred obturation technique
- Or shift to easy single cone technique with efficient results⁽¹⁾

Highly radiopaque

- ► >5 mm Al radiopacity
- Easily visible on X-Rays

Easy extrusion

- Limited plunger resistance⁽²⁾
- Anatomic finger grip for improved syringe handling
- Easy and precise delivery in mouth
- ▶ More comfortable and user-friendly⁽²⁾

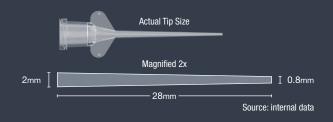
Easily retreatable[®]

- Easy and fast to remove if necessary
- Use hand files or rotary NiTi files

Technical Insights

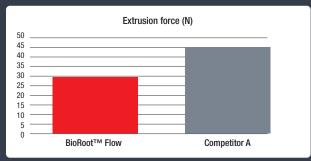
Innovative tip allows direct & precise placement in the root canal

- Flexible tips allow bending and access to all root anatomies
- Precise 21-gauge diameter for optimal delivery limiting the risk of going too deep



(2) Less force needed for product extrusion

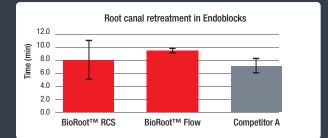
- BioRoot[™] Flow requires only 30N
- Product extrusion is easy and comfortable



Source: internal data

(3) Easy and fast removal from root canal

 BioRoot[™] Flow is removed to working length in less than 10 min



Source: internal data

BioRoot[™] Flow for successful obturation

No Shrinkage[®]

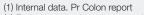
- Resin-free formulation
- ▶ Hermetic seal of the root canal⁽²⁾
- Allows best results even with single cone technique⁽³⁾

Limits bacterial growth

- ▶ High pH 8.5-11.5
- Creates an alkaline⁽⁴⁾ environment, inhibiting bacterial growth

Penetrates radicular canals

- ▶ Without the need for compaction
- Hydrophilic sealer that seeks residual water in accessory canals & tubules⁽⁵⁾
- Excellent flowability of 23 mm and low solubility of 1.5%⁽⁶⁾



- (2) Endodontic Implantation test . June 2020
- (3) Mannocci. CED IADR 2019
- (5) Drukteinis & Camilleri : Bioceramic materials in clinical endodontics. Springer 2020

(6) Internal data



Biocompatible⁽⁷⁾

- High purity calcium silicate from proprietary manufacturing process
- Ensures favorable tissue response
- Limits the risk of adverse reaction

Bioactive: triggers mineralization[®]

- Calcium ion release forms hydroxyapatite
- Increases the mineral density of dentin

Allows best results even with single cone technique

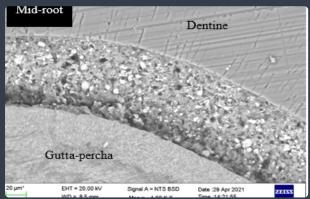
- Unique benefits of calcium silicate enhancing cold technique efficacy
- Obturation is just as successful as with warm techniques⁽³⁾



> Technical Insights

Hermetic seal of the root canal

- Excellent adhesion to dentin and gutta-percha
- Eliminates residual spaces for bacteria to grow



BioRoot[™] Flow SEM interfaces

Source: Dr Camiller

(8) Bioactivity and mineralization

 BioRoot[™] Flow induces hydroxyapatite crystal formation by the reaction between calcium hydroxide and phosphate.

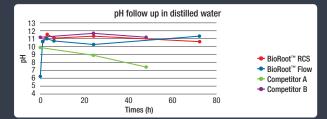


Image shows BioRoot Flow is immersed in Phosphate Buffered Saline (PBS - left picture) vs. water (right picture)

Source: internal data

(4) Long lasting high pH

 High pH is maintained over time, creating an alkaline environment in which bacteria will not grow



BioRoot[™] Flow is made **for everyone**

Whatever your technique

Warm or Cold, BioRoot[™] Flow allows reproducible success

Cold Technique

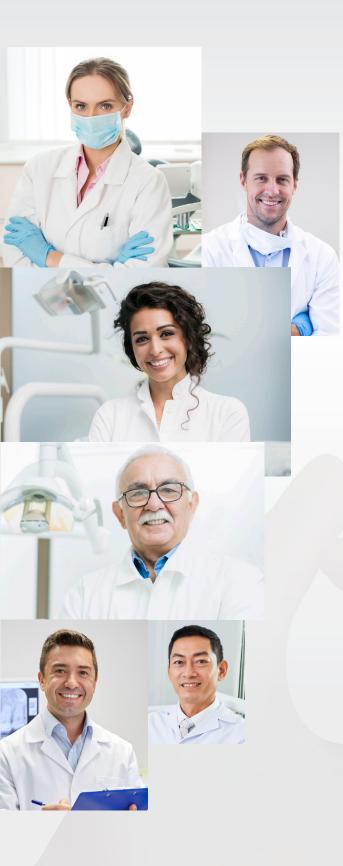
- ▶ No shrinkage ensuring no gaps or voids⁽¹⁾
- Excellent flow to penetrate accessory canals without compaction⁽²⁾
- Tight adhesion to dentin and gutta-percha for lower risk of bacterial infiltration⁽³⁾

Warm Technique

- Thin film thickness contributing to the clinical performance of the obturation
- Material remains stable while heated



Internal data. Pr Colon report
Drukteinis & Camilleri : Bioceramic materials in clinical endodontics. Springer 2020
BioRoot™ flow SEM interfaces. Dr Camilleri



Whatever your practice

General dentistry or endodontics, BioRoot[™] Flow is designed for you

General Dentistry

- ► BioRoot[™] Flow takes single cone technique to the next level
- Allows you to save chair time with each endo patient
- Giving you the confidence with quality obturation⁽⁴⁾

Endodontics

- BioRoot[™] Flow penetrates areas that are hard to reach with a heated plugger (e.g. complex root canal anatomy)
- Consistent sealing quality whatever the obturation technique used ⁽³⁾
- ► BioRoot[™] Flow helps you save teeth by avoiding extractions

Technical Features

Working time	>60 min	Radiopacity	6.3 mm Al
Setting time	5 to 6h00	Flow	23.2 mm
Extrusion Force	30N	Film Thickness	20.8 µm
рН	8.5 - 11.5	Solubility	1.5%
Calcium release	High	Source: internal data; Dr Camilleri	



Product information

- 1x2g syringe
- 1x finger grip
- 20 intra-oral tips
- Item #01E0510

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