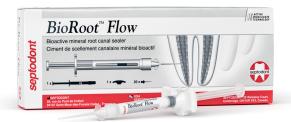
Obturation Success for Everyone





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



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)

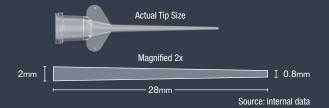
Easily retreatable⁽³⁾

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

> Technical Insights

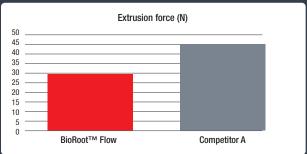
Innovative tip allows direct & precise placement in the root canal

- 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

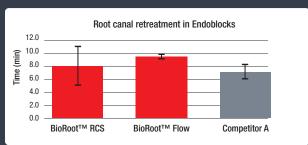
- BioRoot[™] Flow requires only 30N
- Product extrusion is easy and comfortable



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[®]

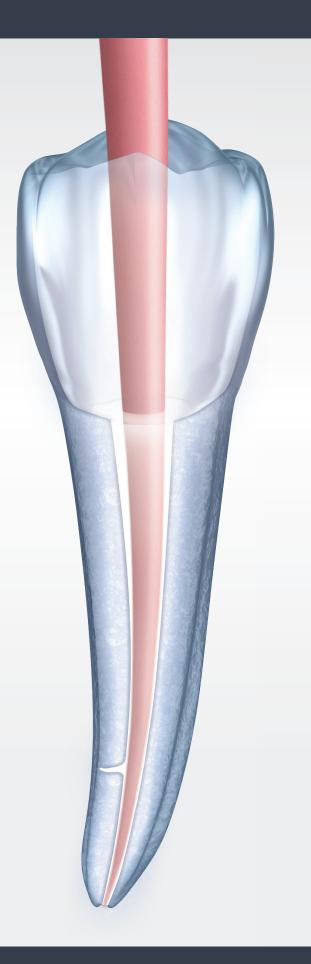
- ▶ Resin-free formulation
- ► Hermetic seal of the root canal (2)
- ► Allows best results even with single cone technique (3)

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)



⁽¹⁾ Internal data. Pr Colon report

⁽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

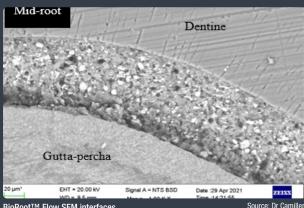
Allows best results even with single cone technique

- ▶ 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

(8) Bioactivity and mineralization

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

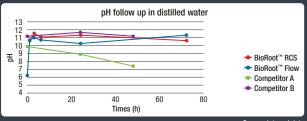


Image shows BioRoot Flow is immersed in Phosphate Buffered Saline (PBS - left picture) vs. water (right picture)

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



⁽¹⁾ Internal data. Pr Colon report

⁽²⁾ Drukteinis & Camilleri : Bioceramic materials in clinical endodontics. Springer 2020

⁽³⁾ 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
Setting time	5 to 6h00
Extrusion Force	30N
рН	8.5 - 11.5
Calcium release	High

Radiopacity	6.3 mm Al
Flow	23.2 mm
Film Thickness	20.8 μm
Solubility	1.5%
Source: internal data; Dr Camilleri	



Product information

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

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