

roeko
GuttaFlow[®]

Dual safety stage.

Safe sealing and filling

- Gutta Percha and sealer in a single application
- Nearly insoluble
- The healing process is supported by increasing the pH value



GuttaFlow[®] bioseal – Not just for filling, also for healing

Supports regeneration in the root canal by increasing the pH value

GuttaFlow bioseal is a state-of-the-art obturation material used for sealing and filling root canals. Hydroxylapatite crystals are formed on contact with the body's own fluids. These in turn are natural components of bone and tooth tissue and support the healing process. This helps ENDO experts as well as beginners to create a lasting solution for their patients.

¹ Study: Maria Giovanna Gandolfi et al. (2016) Properties of a novel polysiloxane-Gutta Percha calcium silicate-bioglass-containing root canal sealer. Dent Mater. 32(5) p 113-126



1. Safety stage

Owing to the slight expansion of GuttaFlow, the canal is sealed tightly.



2. Safety stage

The increase in pH value over several weeks and the formation of the hydroxylapatite crystals support the healing process in the root canal.¹

GuttaFlow[®] 2



GuttaFlow[®] bioseal

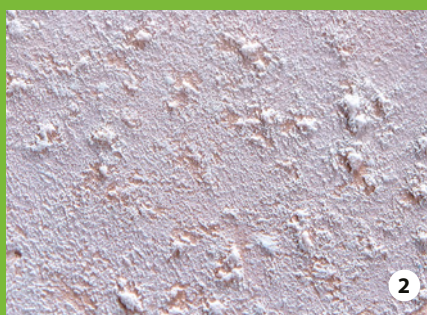


Fig. 1

3.5x magnification of the surface of GuttaFlow2.

Fig. 2

3.5x magnification of the surface of GuttaFlow bioseal. Recognisable formation of hydroxylapatite crystals on the surface.

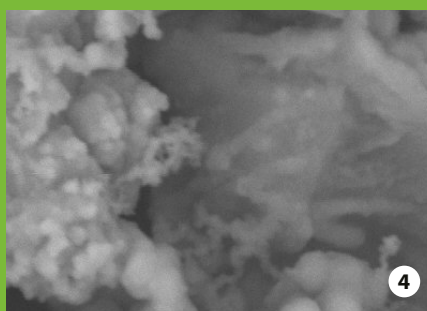
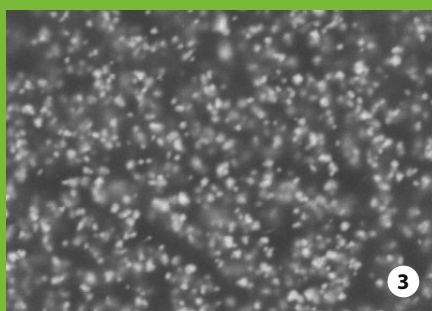


Fig. 3

2500x magnification of the surface of GuttaFlow2 under a scanning electron microscope.

Fig. 4

2500x magnification of the hydroxylapatite crystals on the surface of GuttaFlow bioseal under a scanning electron microscope.

Source: Internal Tests

GuttaFlow[®] – The simple approach to root canal obturation

- Cold filling system – obturation and sealer in one
- Excellent flow properties
- Perfect protection against reinfection due to expansion and tight seal
- Time-saving – as no condensing required
- Excellent radiopacity
- Adhesion to Gutta Percha point and dentine wall
- Nearly insoluble



2-in-1 obturation material

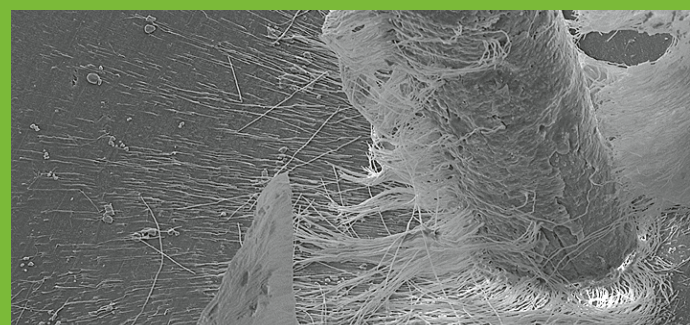
GuttaFlow is a cold filling system for the obturation of root canals which combines two products in one: Gutta Percha in the form of powder in the micrometre range and a sealer, both of which cure quickly together.

Excellent flow properties

ensure optimum distribution throughout the root canal. GuttaFlow is thixotropic whereby its viscosity decreases under pressure and allows the material to reach even the smallest canal and isthmus.

Dentine tubules filled with GuttaFlow and dentine removed with acid.

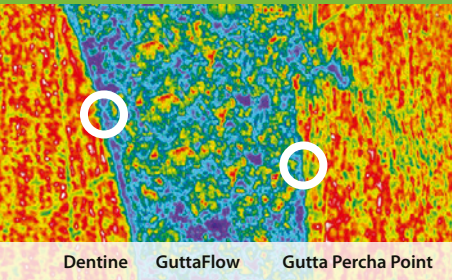
Professor Halina Pawlicka, University of Lodz
Dr Johannes Ebert, University of Erlangen



Expansion meets adhesion!

Tight seal due to expansion and adhesion.

GuttaFlow is the first flowable, non-heated Gutta Percha that does not shrink, but expands slightly. The retention caused by the slight expansion of the material leads to an excellent seal. GuttaFlow also adheres very well to the Gutta Percha point (masterpoint) as well as to dentine.



GuttaFlow demonstrates an excellent marginal fit to dentine and Gutta Percha.

Professor Jorge and Professor Norma Uribe Echevarría,
Faculty of Odontology, Córdoba, Argentina

Nearly insoluble*

Through the contact with body fluids, materials may dissolve over the years, creating space for bacterial colonisation. Conventional root canal sealer materials are soluble to a varying degree. GuttaFlow 2 demonstrates almost no solubility.* This enables dense and dimensionally stable filling of the root canal.

Due to GuttaFlow bioseal's bioactivity, the solubility of this material is higher (0.8%**).

* Source: NIOM Test Reports project No. 10137 GuttaFlow 2 and GuttaFlow bioseal Section 4.3.5 Solubility and Disintegration

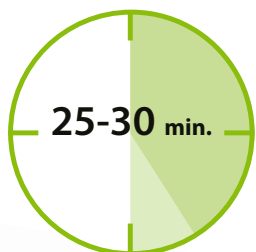
** Source: Internal measurements

Very good biocompatibility

Where endodontic filling materials remain in the body for many years, it is important that there are no adverse effects. In studies, conventional materials demonstrate toxic characteristics ranging from "marginally toxic", "moderately toxic" to "severely toxic", which has an effect on the tissue biocompatibility of the materials. Studies have confirmed that GuttaFlow is extremely biocompatible with tissue.²

² Study: Mar Collado-Gonzalez et al. (2017) Cytotoxicity of GuttaFlow Bioseal, GuttaFlow2, MTA Fillapex, and AH Plus on Human Periodontal Ligament Stem Cells. J Endod. 43(5) p 816-822

GuttaFlow[®] 2



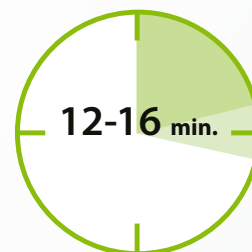
WORKING TIME:

10 min.

CURING:

25-30 min.

GuttaFlow[®] bioseal



WORKING TIME:

5 min.

CURING:

12-16 min.



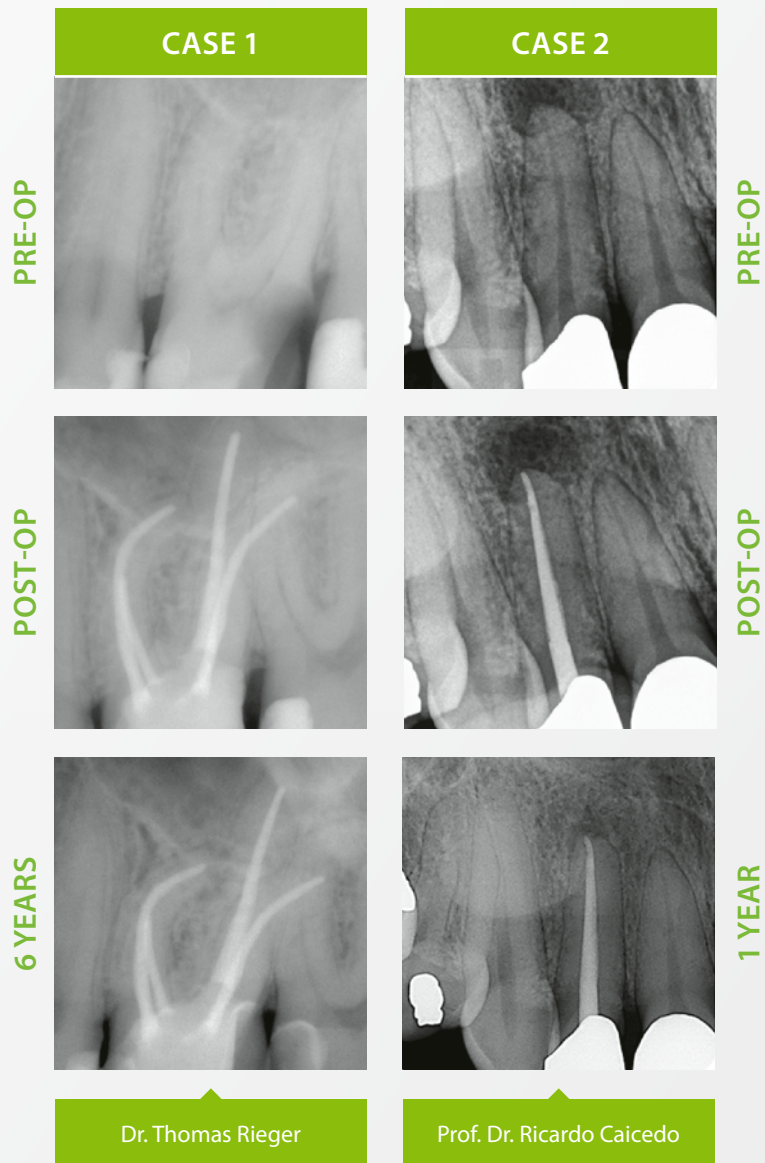
Everything has been **clinically** tested

Successful healing with **GuttaFlow**[®]

Clinical studies

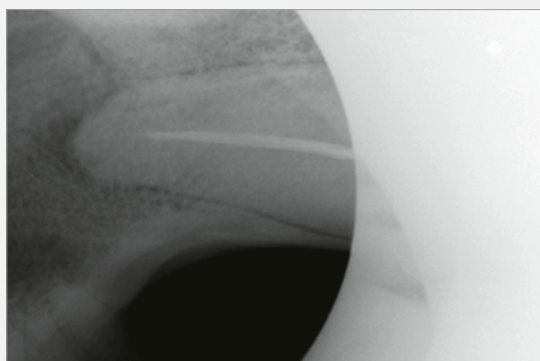
Clinical investigations on conventional GuttaFlow are organised within the context of a multi-centre study under the direction of NIOM (Nordic Institute for Dental Material Testing) and conducted in clinics in Germany, Norway and the USA. The closing study report shows excellent healing results. On the basis of the PAI Scoring system, success rates of 0.7 - 0.8 were measured which were documented over a period of one year.³

³ Huuomonen S, Lenander-Lumikari M, Sigurdsson A, Orstavik D (2003) Healing of apical periodontitis after endodontic treatment: a comparison between a silicone-based and a zinc oxide-eugenol-based sealer. Int Endod J 36, 296-301



Obturation under extreme conditions

Every endodontic treatment is different. But when the patient weighs over 150 kg, the canines are 14 cm long and the treating physician has half an hour to work before he risks his life, GuttaFlow literally saves him from the mouth of the lion.



GuttaFlow® 2

Set and refill packs



Standard set

REF	Quantity	Content
60026870	1	Dual-barrel syringe
	12	Mixing tips
	1	Mixing pad

Refill pack syringe

REF	Quantity	Content
60026871	1	Dual-barrel syringe 5 ml

Refill pack mixing tips

REF	Quantity	Content
60013719	24	Mixing tips

GuttaFlow® bioseal



Standard set

REF	Quantity	Content
60019560	1	Dual-barrel syringe
	12	Mixing tips
	1	Mixing pad

Refill pack syringe

REF	Quantity	Content
60019561	1	Dual-barrel syringe 5 ml

Refill pack mixing tips

REF	Quantity	Content
60019562	24	Mixing tips

Veterinary Extension Tips

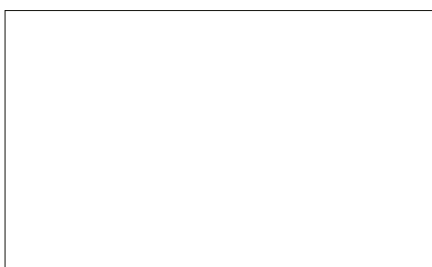
Tips

REF	Quantity	Content
60022768	20	Tips

Tips

REF	Quantity	Content
60023356	20	Tips

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