

## Expansion meets Adhesion.

## The new GuttaFlow®-generation.

 Two in One – Cold filling system for root canals

Expansion – No time consuming condensation required





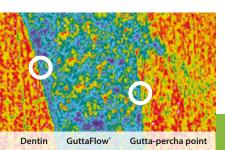




### COLTENE ENDO – Your endo specialist

COLTENE ENDO stands for expertise in the production of essential and reliable endodontic materials. Paper and gutta-percha points, GuttaFlow®, RoekoSeal, ParaPost and ParaCore are clinically proven products that ensure successful endodontic therapy.

## New! With dual effect



GuttaFlow® shows an excellent fit to dentin and gutta-percha. Prof. Jorge and Norma Uribe Echevarría, Faculty of Odontology, Córdoba, Argentina

### Two in One – Cold filling system for root canals

GuttaFlow® 2 is a novel filling system for root canals that combines two products in one: gutta-percha in powder form with a particle size of less than 30  $\mu$ m, and sealer. This new filling system works with cold free-flow gutta-percha.

## Expansion meets Adhesion!

### Tight seal due to expansion and adhesion of GuttaFlow® 2

GuttaFlow® 2 is the first flowable, non-heated gutta-percha that does not shrink but expands slightly. The slight expansion of the material leads to an excellent seal. Furthermore GuttaFlow® 2 shows a very good adhesion to the gutta-percha point (masterpoint) as well as to the dentin wall.

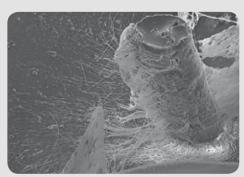
### Qualities of

## GuttaFlow®2

### Excellent flow

### GuttaFlow® 2 has excellent flow properties.

This feature ensures optimum distribution throughout the root canal. The material is thixotropic, the viscosity diminishes under pressure so GuttaFlow® 2 flows into the smallest canals.



Dentin tubules filled with GuttaFlow®.

Dentin had been removed with acid.

Prof. Halina Pawlicka, University of Lodz

Dr. Johannes Ebert, University of Erlangen

### Solubility of 0,0%\*

### GuttaFlow® 2 shows virtually no solubility.

Through contact with body fluids, materials may dissolve over the years, creating space for bacterial colonization. Most standard root canal sealer materials are soluble to a varying degree. The solubility of GuttaFlow® 2 is virtually zero. In fact, tests according to ISO 6876:2001 show a solubility of 0.0%\*. This results in a dimensionally stable and impervious root canal filling.

\* acc. to ISO 6876:2001 Dental root canal sealing materials Source: NIOM Norwegian Institute for Dental Material Testing

### Very good biocompatibility

In the case of endodontic filling materials that remain in the body for many years, it is particulary important that there is no adverse effect on the surrounding tissue. Conventional materials demonstrate toxic characteristics ranging from "nontoxic mildly", "moderately toxic" to "severly toxic". Clinical studies show GuttaFlow® to be extremely biocompatible.

### Optimum protection

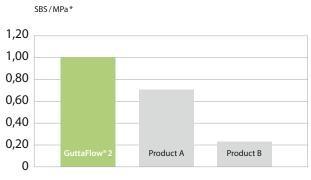
The micro-silver in GuttaFlow® 2 provides optimum protection against re-infection of the root canal. The chemical form and concentration of the silver do not lead to any corrosion or discoloration of GuttaFlow® 2.

## Syringe or capsule

# The simple way to root canal obturation

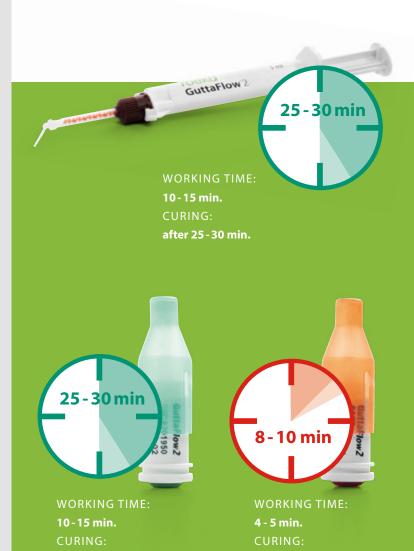
- → Flowable cold filling system
- $\,
  ightarrow\,$  Two in One combines sealer and gutta-percha
- → Expansion no time consuming condensation required
- → Adhesion to gutta-percha point and dentin wall
- → The use of any additional sealers is not required
- → Tight seal of the root canal due to expansion and adhesion
- ightarrow Allows for excellent post preparation
- → Excellent flow properties
- → Solubility is virtually zero
- → Very good biocompatibility
- → Optimum protection against re-infection
- → Excellent radiopacity

# Very good adhesion to masterpoint and dentin



\* Source: Internal measurements

after 25 - 30 min.



after 8 - 10 min.

## Clinically tested through and through

## Successful healing with **GuttaFlow**°

### Clinical study

Clinical investigations on the conventional GuttaFlow® are organised in the framework of a multi-center study under the direction of NIOM (Norwegian Institute for Dental Material Testing) and conducted in clinics in Germany, Norway and the USA. The preliminary 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 have been documented over a period of one year.

#### **Further studies**

A wide range of further studies on GuttaFlow® has already been conducted.

You can find these under www.guttaflow.com.







obturation



2 months

Pictures: Prof. Dr. Ricardo Caicedo, University of Louisville, USA

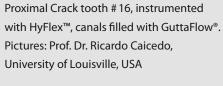
### Clinical Cases



Preop



Postop

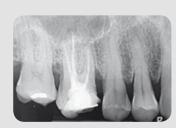














Root canals prepared with HyFlex™ CM and obturated with GuttaFlow®.

Pictures: Dr C A Siddons, North Yorkshire, Great Britain

## Easy, fast and safe in the root canal

## Syringe



STEP 1
Slight pressure on the plunger and premixed material is dis-

pensed from the tip.



STEP 2
Either insert GuttaFlow® 2 into the root canal with the master point (a), the last used apical file (b) or a lentulo spiral (c).



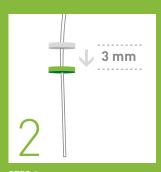
STEP 3

Coat the masterpoint with sufficient GuttaFlow®2 and set the apical stop. Depending on the clinical situation accessory guttapercha points can be coated and inserted. GuttaFlow®2 combines sealer and gutta-percha in one product, the use of any sealers is not required. No lateral or vertical condensation is necessary.

## Capsule



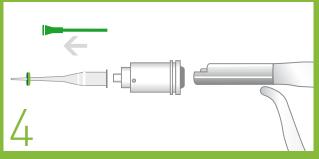
STEP 1
Determination of the working length.



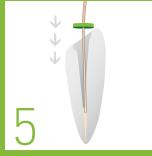
Move the green rubber stop 3 mm down towards the tip opening.



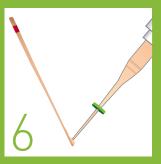
STEP 3
Push the cap right down over the capsule and then remove it. Mix GuttaFlow® 2 (capsule) for 30 sec. in a triturator.



Remove the green activation pin from the capsule, twist the pre-set canal tip with endo stop and insert the capsule into the dispenser.



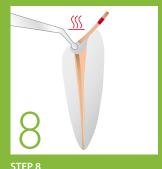
STEP 5
Dispense GuttaFlow® 2 into the canal until you can see the material.



Then coat the masterpoint with GuttaFlow® 2.



Then permanently place the master point and fill the remaining canal space with GuttaFlow® 2.



Finally shorten the master point with a hot instrument.

## **GuttaFlow**® 2 and accessories

## Capsule

### **ROEKO GuttaFlow® 2 Introkit (Capsules)**

REF	Amount	Contents
6001 3702	20	Capsules GuttaFlow® 2
	20	Canal Tips + Stops
	3	Adapters for RotoMix™*
	1	Dispenser
	100	Retention Points ISO 30-60
60 Gui		Gutta-percha points Greater Taper 0.04 20-45

### **ROEKO GuttaFlow® 2 FAST Introkit (Capsules)**

REF	Amount	Contents
6001 3705	20	Capsules GuttaFlow® 2 FAST
	20	Canal Tips + Stops
	3	Adapters for RotoMix™*
	1	Dispenser
	100	Retention Points ISO 30-60
	60	Gutta-percha points Greater Taper 0.04 20-45

### Refill packs capsules and accessories

REF	Amount	Contents
6001 3704	20	Capsules GuttaFlow® 2
	20	Canal Tips + Stops
6001 3706	20	Capsules GuttaFlow® 2 FAST
	20	Canal Tips + Stops
6001 3707	1	GuttaFlow® 2 Dispenser
349 132	20	Canal Tips + Stops
349 134	20	Combi Tips + Stops
349 133	3	Adapters for RotoMix™*



### **NEW!**

### GuttaFlow® 2 Primer

Depending on the clinical situation the GuttaFlow® 2 Primer can be used optionally. Once impregnated with GuttaFlow® 2 Primer, the surface of gutta-percha points is altered so that bonding with sealers is strengthened. This is particularly useful when using GuttaFlow® or GuttaFlow® 2 together with master cones and without lateral and vertical condensation techniques.



## Syringe

### **ROEKO GuttaFlow® 2 Standard Set**

REF	Amount	Contents	
6001 3701	1	Dual-barrel syringe	
	12	Mixing tips	V
	1	Mixing pad	

### ROEKO GuttaFlow® 2 Refill pack dual-barrel syringe

REF	Amount	Contents
6001 3745	1	Dual-barrel syringe

### ROEKO GuttaFlow® 2 Refill pack mixing tips

REF	Amount	Contents
6001 3719	24	Mixing tips

#### **ROEKO GuttaFlow® 2 Primer**

REF	Amount	Contents
6001 3708	1	10 ml in bottle with brush

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