



# Komet **BioRepair.**

The evolution of endodontic treatments:  
the power of our ready-to-use bioceramic reparative material.



## Komet Dental. Your partner in excellence.

Founded in 1923 by the Brasseler brothers, Komet Dental grew from a small company in Lemgo, Germany, into one of the most renowned providers in the dental sector. Throughout our company's history, our actions, developments, and innovations have all been driven by one goal: to turn your vision of a perfect treatment into reality. With more than 100 years of experience, we create high-quality solutions, instruments, and services that you can rely on – for optimum results and smooth practice processes.

Improving existing solutions and developing new ones is in our DNA. We believe that things can always be a little better, that we can help you go further, make your work easier, and achieve the best possible results. So, we never stop innovating.

We value the close collaboration with dental professionals: Their insights and our expertise merge into a deep understanding of treatment processes and preparations. This synergy is the key to our success when it comes to developing high-quality products and services that are optimized to meet the requirements of a dental practice.

Today, Komet Dental is not only a trusted brand but also the gold standard when it comes to rotary instruments. Whether it's crown-cutters or the iconic "round bur", we have solutions for almost every general dentistry treatment. And there's even more: We have also developed a system for endodontics, including files that are easy to use and enable a particularly safe treatment.

**Komet. In love with better.**



# Komet **BioRepair**.

Taking dental excellence to the next level and discover the ready-to-use solution for vitality preservation.

In the past 100 years, Komet has proven to be a reliable and important partner for dentists around the world, providing excellent quality and innovative solutions for their daily tasks. With the new Komet BioRepair Putty, we further enhance endodontic treatments and top off our existing portfolio.

When treating patients, the preservation of their natural teeth is a top priority for every dentist. However, there are many factors that make treatment more difficult: Some have a weakened bone structure, while others require solutions that do not impair their root growth.

With Komet BioRepair Putty, Komet now offers a solution for eight different indications that is specially tailored to these challenging cases. Thanks to its bio-ceramic formula, the material induces periradicular cementum neoformation and stimulates the repair process in damaged periradicular tissues - allowing dentists to perform treatments that were previously unthinkable.

What's more, Komet BioRepair Putty is supplied as a ready-to-use solution, saving both time and money. As the material does not need to be mixed at the dental practice, you can immediately benefit from the consistently high Komet quality with every application.



# Komet **BioRepair**.

The allrounder for your endodontic treatments.

Treating all patients for 8 different indications with just one easy-to-use solution – Komet BioRepair truly lifts endodontic treatments to the next level. Discover the remarkable properties of Komet BioRepair and find out how you and all your patients will greatly benefit from it.

## **8 different indications a single all-in-one solution.**

Komet BioRepair is ideally suited for the effective treatment of 8 different indications - and each treatment can be carried out with the same solution.

### **Easy-to-use application.**

Komet BioRepair Putty is supplied as a premixed solution, which not only ensures easy application, but also enables faster treatments.

### **Preserved vitality & stimulates regeneration.**

The superb vitality-preserving and tissue stimulation properties of Komet BioRepair make it a particularly suitable solution for the treatment of challenging patients.

### **No discoloration despite extensive teeth repair.**

Another advantage of Komet BioRepair lies in its aesthetic properties, as the color of the treated teeth is not affected even in case of extensive repairs.

#### → **Hydrophilic material**

The material of our putty needs moisture to start the setting process. This reduces stress for the dentist, as the cavity no longer needs to be completely dried before application.

#### **All-in-one solution**

Komet BioRepair can be used for eight different indications. It can therefore replace other materials and facilitate your storage management

#### → **Inhibits bactericidal growth**

The bactericidal action by strong alkaline pH value of ~12 help to prevent early-stage infections – a feature which is further enhanced by using a material that does not shrink during the setting process, leaving no space for bacterial infiltration.

#### → **Bioceramic formulation**

Komet BioRepair Putty is composed of calcium silicates and does not contain any heavy metals.

#### **Ready-to-use solution**

Komet BioRepair is already mixed when it reaches your dental practice. This saves you costs and eliminates the need for staff training.

#### **Consistent quality**

The pre-mixed putty rules out user errors, enabling you to benefit from the consistently high Komet quality every time you use it.

#### **Long-term effect**

The long-term prognosis of endodontic treatment improves. Thanks to its vitality preserving properties, our putty not only opens the door to new treatment options for average patients, but is also particularly suited for treating challenging patients.

#### **Excellent aesthetics**

The ingredients of Komet BioRepair do not cause any discoloration, thus ensuring an aesthetically pleasing result and satisfied patients.

#### **High radiopacity**

Thanks to its high radiopacity, Komet BioRepair is easy to detect on X-ray images. This makes it easier to check the correct application.

# 1 solution for 8 indications:

Komet BioRepair's superb versatility.

With Komet BioRepair putty material,  
8 different endodontic indications can  
be tackled with ease!

Our innovative all-in-one solution stream-  
lines your practice, offering consistent,  
high-quality results for every patient.

Simplify your toolkit, maximize your  
efficiency!

**1** Pulpotomy  
(see page 8–9)

**2** Root resorption  
(see page 7)

**3** Apexification

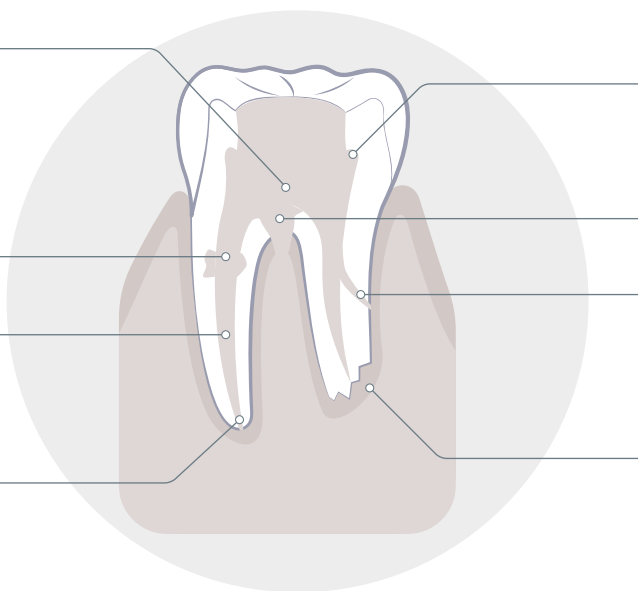
**4** Apexogenesis

**5** Pulp protection

**6** Furcation perforation

**7** Root perforation

**8** Retrofilling





# Step-By-Step: Root Resorption

Learn how to use it in your daily treatments.

## Treatment of internal resorption surgically or by root canal

1. Anesthetize and install the absolute isolation
2. Remove the granulation tissue of the reabsorption area
3. Neutralization of the medium with calcium hydroxide paste
4. Remove the calcium hydroxide paste in the following session and execute endodontical treatment in the conventional way until the height of the reabsorption
5. Apply Komet BioRepair in the place of reabsorption, condensing it against the walls with specific instruments or a sterile ball of cotton slightly moistened
6. Execute the coronal sealing with glass ionomer and restoration with the material preferred
7. X-ray and execute preservation for at least two years



# Case study: Partial pulpotomy.

Komet BioRepair connects highest quality with ease-of-use.

## **Komet BioRepair putty for highly successful endodontic treatments**

The priority of the dentist is to preserve his patients' natural teeth. In challenging cases like partial pulpotomy, conservative treatments are often crucial to successfully prevent endodontic treatments and tooth loss. Komet BioRepair offers general dentists and endodontists an effective and user-friendly solution that effectively supports them in treating these particularly sensitive cases where the preservation of tooth vitality and regeneration properties play a key role.

## **Treatment procedure**

Georg Benjamin started the partial pulpotomy therapy with a local anesthesia and the application of a rubber dam to prevent

unwanted moisture from penetrating the treatment area. He then removed the old filling material using a diamond bur, before he removed the secondary caries with an EndoTracer.

First of all, Benjamin created an access cavity to treat the infected but still viable dental nerve. As a next step, he performed a millimeter accurate excision of the pulp horn. It is important that this is done evenly to create a levelled surface area for the Komet BioRepair putty filling material that is applied later. Benjamin then removed any infected debris from the treatment area by constantly rinsing the pulp horn with sodium hypochlorite for disinfection. To prepare the sealing process, Benjamin has precisely etched the tooth enamel with

an etching gel to ensure that the filling material will hold better.

Benjamin used the Komet BioRepair putty material to cover the treatment area and seal the cavity. To create an optimal bonding effect, he applied a self-adhesive flow to the Komet BioRepair material and then sandblasted the whole treatment area. After selective etching and the composite shaping took place with hand instruments and a small brush. As a last step, he polished the treated area and performed a bite test to confirm the treatment success.

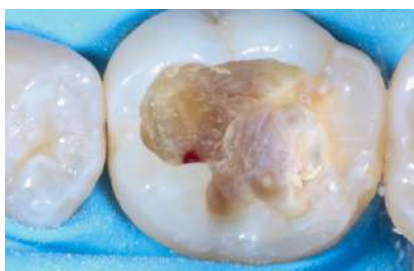
## **Komet BioRepair: providing major advancements for endodontics and general dentistry**

Endodontics is a field that requires utmost precision and care, especially when it

## **Step-By-Step. Pulpotomy.**



1. Removal of secondary caries and creating the access cavity.



2. Opening of the mesial pulp horn and performing the millimeter accurate excision of the pulp horn.



3. Desinfection with NaOCl 2%.





*"There are not that many putty products on the market. And among those few products, Komet BioRepair shares lots of great benefits: Starting with the intuitively usable dispenser over the pre-mixed condition to tremendous features such as great adhesive and resistant properties during application. All in all, with Komet BioRepair endodontists and dentists don't have to bother about anything."*



Georg Benjamin, Endodontist, Germany

comes to challenging cases. In this regard, the success of each endodontic treatment also depends on having the most efficient putty material at your disposal.

Komet BioRepair offers a flexible solution to dentists and endodontists that can be used for almost every patient group and a total of 8 different indications. Thanks to

its special formula, Komet BioRepair efficiently supports tooth regeneration and preserves tooth vitality.

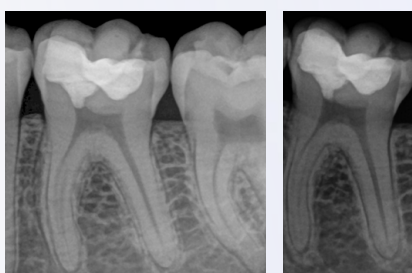
#### **Follow-up examination after 12 months**

The digital volume tomography (DVT) and the photographic clinical documentation taken during the follow-up examination after 12 months show a stable situation of

tooth 36 having undergone a partial pulpotomy. The sensitivity test, the percussion test and the circular probing of the retaining gingival tissues confirm the successful preservation of the vitality of the tooth nerve and the surrounding periodontium thanks to Komet BioRepair.



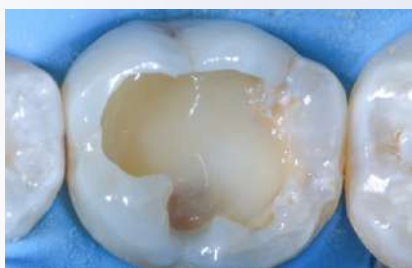
Radiograph of the patient's tooth **before** the treatment.



Radiograph of the patient's tooth **after** the treatment and **after 12 months**.



4. Application of Komet BioRepair.



5. Application of transparent, fiberglass-reinforced flow.



6. Finishing of the filling using tooth colours.

# Komet **BioRepair.**

Technical data.

Physical-Chemical Characteristics		Product specifications		Formulation/Composition	
ISO 6876:2012					
Setting time	≤ 120 min	ID/REF	10022114 / BCR1 (syringe) 10024314 / BCR2 (capsule)	Component	Fuction
Radiopacity	> 7,0 mm Al	Presentation / Content	1 syringe of 0.5 g 10 capsules with 0.15 g each	Tricalcium Silicate (C3S)	Mechanical resistance over time Calcium ions release
PH	12	Applications*	~ 10 per syringe and capsule	Dicalcium Silicate (C2S)	Mechanical resistance over time Calcium ions release
Expansion at setting time	0.092 ± 0,05 %	Description	Ready-to-use bioceramic reparative material (putty)	Tricalcium Aluminate	Initial setting
Solubility	< 3 %	Shelf life	2 years from production date	Calcium Oxide	Calcium ions release
Strength	7,933 ± 3,284 MPa	Storage	<ul style="list-style-type: none"> <li>Keep the product in a dry and well ventilated location between 15 and 30°C with relative humidity below 60%</li> <li>Do not store in a refrigerator</li> <li>Do not store the product near ammonia, ammonium nitrate and products containing chlorine. Avoid the use of disinfecting solutions containing any of these ingredients</li> <li>Confirm that the silica sachet inside the envelope remains blue</li> </ul>	Zirconium Oxide	Radiopacity
Particles size	< 2 µm			Silicon Oxide	Rheology agent
				Polyethylene Glycol	Dispersing agent
				Iron Oxide	Pigmentation

\*The number varies depending on the indication

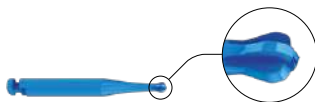
# Complementary products

perfectly coordinated.



## BCS1 - Komet BioSeal

- Bioceramic Sealer
- Root filling material based on calcium silicate with bactericidal effect and excellent biocompatibility
- Indication step – Rootcanal treatment after perforation or resorption



## PolyBur - P1.204.014/018/023

- Excavation in the vicinity of the pulp
- Ideally suited for minimally invasive excavation near the pulp thanks to its self-limiting properties
- Indication step – Pulp Protection



## TD3709 - Kit Pulpotomy Dr. Grégory Fejz

- Specific pulpotomy set for vital pulp treatments
- Developed with Dr. Grégory Fejz - France
- Indication step – Pulpotomy and Pulp Protection



## SonicTips - SF55/16-17/20-21/56-57.000

- Sonic tips for the retrograde preparation of the root canal during apicectomies
- Minimally invasive approach without preparation of large bone windows
- Indication step – Retro-Filling (apicectomies)

**Komet Dental**

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