



DUAL-CURING SELF-ADHESIVE COMPOSITE-BASED LUTING SYSTEM







# Bifix® SE

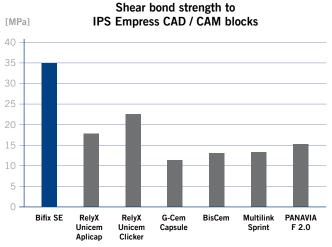
## **RELIABLE HOLD**

Bifix SE, VOCO's composite-based dual-curing, self-adhesive luting system, is used for fast and reliable luting of indirect restorations (crowns, bridges, inlays, onlays) and endodontic posts. It is suitable for various materials such as ceramic, zirconium dioxide, composite and metal. No additional primer or conditioner is needed when Bifix SE is used, as all the necessary system components are already included. This renders time-consuming etching and bonding work unnecessary, allowing you the dentist and your patient alike to benefit from considerable time saving and added convenience.

Bifix SE allows problem-free application directly into the prepared root canal using the enclosed fine endo-tips and as such is ideal for luting endodontic posts. Quick and simple luting of an endodontic post with a predictable, successful result considerably reduces your chairside workload. Additional instruments, such as lentulos or other assistance tools, are no longer necessary.

Endo-tip for luting endo-dontic posts

# Bifix SE offers reliable adhesion in both the light-curing and self-curing modes. A durable bond to dentine and enamel is guaranteed.



Source: Dr. John Burgess, University of Alabama, 2009

## Outstanding adhesion values

Bifix SE produces excellent adhesion values for various materials such as metal, composite, ceramic and zirconium dioxide and also displays strong adhesion to CAD / CAM blocks.

The material is very easy to apply with a slim layer thickness of less than 10  $\mu$ m, which does not affect the accurate fit of the restoration.

## What our users say

## Dr. Skaletz, Hattersheim (Germany), dentist:

"[...] Restorations luted with Bifix SE can be exposed to loads immediately, which is a particularly convenient secondary effect for the patient. Our experience in over six years has shown that Bifix SE is a progressive, reliable means of luting. With Bifix SE we have so far not encountered any of the hypersensitivities that cause serious problems when using similar products. I can recommend trying Bifix SE in the practice to any dentist."

#### Dr. med. dent. Tim Übermuth M.Sc, Celle (Germany), dentist:

"In Bifix SE you have a universal, self-adhesive luting cement with excellent physical properties coupled with outstanding cost-efficiency. I highly recommend it!"

#### Practice of Dr. Willenbockel, Soltau (Germany):

"The broad range of applications (metal and ceramic restorations) offers a high level of comfort for both the patient and the practitioner. The error-free mixing system also increases the quality of luting. It simplifies working as no additional materials are required. This is why I have been routinely using Bifix SE in my practice for a long time without any problems."

# Bifix® SE

## SIMPLE REMOVAL OF EXCESS MATERIAL

## Easiest removal of excess material with Bifix® SE









Source: Dr. Walter Denner, Fulda / Germany

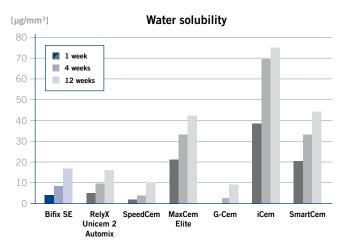
Bifix SE offers optimal flow properties, which result in complete wetting of the cavity and the restoration. This greatly simplifies application and also removal of excess material. Any excess material can be removed using a scaler or similar instrument during the gel phase after exposure to the polymerisation light for just 1 - 2 seconds per surface. Outstanding chemical curing properties make Bifix SE especially suitable for thick-walled or opaque restorations and for any depth of cavity.

The oral environment poses a major challenge for dental luting composites. Masticatory loads, temperature changes and acid attacks are just some of the factors to which the materials can be exposed. Even the omnipresent saliva can have a detrimental effect on dental materials.

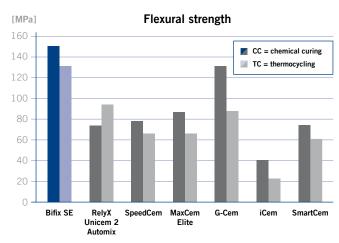
For this reason, the water solubility test offers a good indication of the long-term stability of a luting material. To illustrate this, the water solubility of different self-curing luting composites is determined for periods of 1, 4 and 12 weeks in accordance with ISO 4049. All materials display an increase in water solubility the longer they are immersed in water. The greater the solubility the greater the loss of material strength.

Bifix SE guarantees the reliable bond between the restoration and hard dental substance with its high degree of stability, which only diminishes slightly even after being subjected to the so-called thermocycling, i.e. fluctuations in thermal load between water baths of 5 °C and 55 °C. The thermocycling simulates a retention time of 10 years. Even after this exposure to stress, Bifix SE still displays considerably higher

stability compared with other materials on the market in terms of flexural strength.



Source: VOCO in-house measurement, VOCO GmbH, 2014



Source: VOCO in-house measurement, VOCO GmbH, 2014

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## **DUAL-CURING SELF-ADHESIVE COMPOSITE-BASED LUTING SYSTEM**

## **Indications**

Definitive luting of inlays, onlays, crowns and bridges (not Maryland bridges) made from ceramic, zirconium dioxide, composites and metal

Definitive luting of metal, ceramic, zirconium dioxide and fibre-reinforced posts



## **Presentations**

REF 1784 Set QuickMix syringe 3 x 5 g (universal, transparent, white-opaque), accessories

REF 1785 QuickMix syringe 5 g universal, accessories

REF 1786 QuickMix syringe 5 g transparent, accessories

REF 1787 QuickMix syringe 5 g white-opaque, accessories

REF 2194 Mixing tips type 14, 50 pcs.

REF 2195 Mixing tips type 15 (with intraoral tips type 1), 50 pcs.

RelyX Unicem Aplicap, RelyX Unicem Clicker, RelyX Unicem 2 Automix, G-Cem, G-Cem Capsule, BisCem, Multilink Sprint, PANAVIA F 2.0, SpeedCem, MaxCem Elite, iCem and SmartCem are not registered trademarks of VOCO GmbH.

#### **Advantages**

- Secure adhesion to tooth and restoration
- · Fast working: no etching, no bonding
- Odourless
- Easy handling
- · Long-term durability
- Simple removal of excess material
- Minimal film thickness of 10 µm for precisely fitted luting without elevating the bite
- · Also suitable for zirconium dioxide
- Endo-mixing tips in each package for the most precise application even in the root canal

## Available in a choice of three colours

T = transparent, U = universal and WO = white-opaque for the ideal match to the restoration to be luted

## **Technical data**

Flexural strength: 160 MPa (LC – light-curing),

150 MPa (CC – chemical-curing)

Adhesion to dentine: 12,8 MPa Film thickness:  $10 \mu m$  Working time: 90 s Setting time: 4:00 min

Full-curing time:  $2 \text{ mm} / 20 \text{ s} (\geq 500 \text{ mW} / \text{cm}^2)$ 

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