













Bifix® QM

DUAL-CURE RESIN CEMENT SYSTEM WITH DUAL-CURE SELF-ETCH BONDING





VERSATILITY – ONE CEMENT FOR ALL CEMENTATION INDICATIONS AND ALL SUBSTRATES

Dentistry today offers a variety of substrates for indirect restorations such as Zirconia, Ceramic, Gold, Palladium and other metals and composites. It becomes more and more confusing which cement can be used with which substrate. Bifix QM can be used with all substrates giving you the confidence that your prosthetic will last.

Bifix® QM is indicated for the adhesive cementation of:

- Inlays and onlays
- · Crowns (full and partial)
- Veneers, facets
- Pins and posts
- Bridges and adhesive bridges (Maryland bridges)

Made out of:

- All Ceramic (incl. Leucite and Aluminum oxide)
- 7irconia
- Metal (precious and non-precious metal)
- PFM (Porcelain fused to metal)
- Composite

With over 10 years of proven clinical success Bifix QM with Futurabond DC and Ceramic Bond are the perfectly matched tools that allow you to cement all of your restorations with maximum confidence.



The Bifix QM system includes the award winning dual-cure self-etch adhesive Futurabond DC. Compared to traditional resin cement systems with total-etch adhesives, the one-step dual-cure, self-etch adhesive Futurabond DC cuts your procedure time in half and reduces the steps required. Futurabond DC in combination with Bifix QM provides the high bond strength security of a traditional system but offers the speed of the newer self-adhesive resin cements.

Futurabond DC has a very low film thickness of only 9 microns. This ensures the perfect fit of your restoration without spending extra time for occlusal adjustments.

VOCO's patented *SingleDose* System prevents solvent evaporation; a common problem in a variety of other bonding systems. This ensures reliable bond strengths for each and every use. The one-step activation blisters will not spill in any position. A new *SingleDose* application for every patient prevents any concerns regarding contamination. Futurabond DC is also available in Easy-Drip bottles.



Futurabond DC cures without any light in the self-cure mode. This is a big advantage for endo applications like root canal post cementation with Bifix QM. Futurabond DC eliminates the problem of the "pooling effect", the blocking of the root canal caused by cured bonding agent. Special Endo Tims allow an easy application of Futurabond DC in the root canal. The material will not start to cure until it is in contact with a dual or self-cured resin cement or core build-up composite.

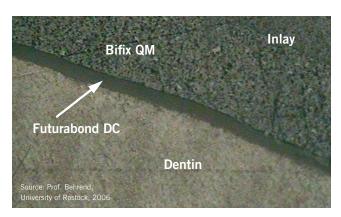
EASY CLEAN UP – SAVES TIME

The Bifix QM cement has a long elastic gel setting phase. This differs from most other resin cements that possess a snap set, which allows users of Bifix QM more time for clean-up of the interproximal area and margin. The elastic gel phase ensures that material does not slump and allows the user, without rushing, plenty of time to tack-cure the cement and then easily remove the excess material. This feature saves time and avoids headaches.



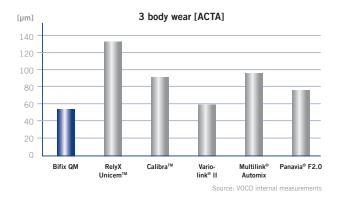
LOW FILM THICKNESS SAVES OCCLUSAL ADJUSTMENT TIME

Bifix QM's low film thickness of only 10 microns gives you several advantages. It avoids the "jack up" of your restorations and will save valuable occlusal adjustment time. For inlays a small film thickness means that you will not experience the "halo" effect of stained margins around the restoration. The lower film thickness also contributes to Bifix QM's excellent bond strength.



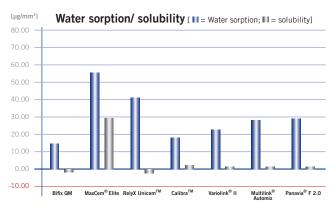
HIGH WEAR RESISTANCE FOR ESTHETICS AND LONGEVITY

Bifix QM shows significant lower wear rates than other materials. This ensures a better marginal integrity especially important for the esthetics and longevity of inlays.



LOW WATER UPTAKE AVOIDS SHADE SHIFTING AND BOND FAILURES

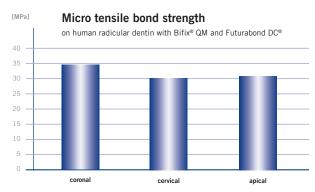
Water absorption is a critical measurement for cements. Water absorption not only affects the cement's level of shade shift which would compromise esthetics but even more important, over time it can break down a cement and cause a restoration failure. Bifix QM has a very low water sorption and water solubility rate, which will significantly assist in avoiding long term failures of your expensive restorations.



Source: VOCO internal measurements

HIGH BOND AND FLEXURAL STRENGTHS FOR LONG LASTING RESTORATIONS

For long lasting results it is important that the cement and bonding agent have high bond strengths to all substrates. The combination of Futurabond DC and Bifix QM guarantees high bond strengths on the most critical substrates (human dentin and ceramic) giving you peace of mind with each restoration.



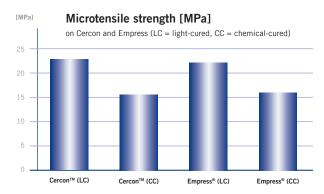
Source: C. Rettig, A. Rother, H-G. Schaller, C.R. Gernhard, University Halle, Germany, IADR, 2009, abstract 1839

The micro tensile strength of the combination of Futurabond DC and Bifix QM resin cement system on two different ceramics was ascertained in a study at the University of Halle-Wittenberg, Germany. In addition to light-curing, pure chemical-curing was also evaluated. The adhesion was determined under simulation of natural perfusion in this study. Cercon (zirconium dioxide ceramic) and Empress (Leucite glass-ceramic) were used as ceramics.

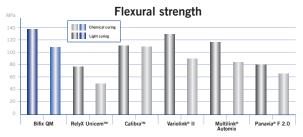
The adhesion values are outstanding on both materials, and chemical-curing also achieved a secure bond in the areas inaccessible to light.

The combination of Futurabond DC® and Bifix® QM is a safe way to permanently cement ceramic restorations.

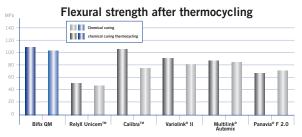
A high flexural strength will produce better longevity by increasing and ensuring the cement's ability to withhold deformation under a bending load. Bifix QM's immediate and long term flexural strength (simulated by thermocycling) whether lightcured or self-cured has proven superior to competitor's.



Source: T. Mohs, P. Wappler, K. Bekes, H.G. Schaller, C.R. Gernhardt, Martin-Luther-University Halle-Wittenberg, Germany, CED / IADR 2007 / 0183



Source: VOCO internal measurements, data on file



Source: VOCO internal measurements, data on file



Futurabond DC +++++

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Description

Futurabond DC is a dual-cured, self-etching bonding agent (7th-generation) that is reinforced with nanoparticles. It is indicated for use with direct light-, dual- or self-cured composite restorations and core build-ups plus cementation of posts and indirect restorations (inlays, crowns and bridges) with light-, dual-, or self-cured resin composite cements. The system includes two liquids - the self-etching bonding agent and the dual-cured activator. Futurabond DC is available in SingleDose blister packs or in 4-ml bottles. To use the blister pack, press the blister to allow mixing of the two liquids. Puncture the foil with the applicator brush and stir. Apply to the tooth for 20 seconds, air dry and light cure for 10 seconds. Futurabond DC SingleDose was evaluated by 18 Editors in over 370 cases. This product received a 96% clinical rating.

Suggested Retail Cost

- \$112.95/ kit of 50 SingleDose
- \$339.95/ kit of 200 SingleDose

Evaluation Protocol

 Futurabond DC SingleDose was evaluated by 18 Editors in over 370 cases.

Editors' Observations

Manufacturer Instructions and Packaging

The *SingleDose* packets are compact and provide an adequate amount of material for multiple restorations. The product is packaged with an illustrated instruction card. Room temperature storage enhances the convenience of *Futurabond DC*, allowing it to be stored in the operatory, rather than under refrigeration.

Ease of Application/ Surface Wettability and Viscosity

The *SingleDose* blister is easy to activate and mix with the applicator brush included, but there is no way



Editors' Comments

- "SingleDose design is relatively easy to use."
- "Good wettability of the tooth surface."
- "Futurabond DC SingleDose provides fresh material for each case."
- "Versatile adhesive system."
- "Does not have a strong odor."

to determine visually if the product is adequately mixed. *Futurabond DC* consistently earned high ratings for its viscosity and wettability. Editors reported that it was easy to wet the tooth surface with the material and it was easy to apply. The entire bonding process is time-efficient.

Time Required for Bonding Procedure/Usefulness for Various Procedures

Editors reported that *Futurabond DC* was quick to use, with a 35-second total procedure time: 20 seconds for application, five seconds for air dispersal, and 10 seconds for light curing. The system is versatile in its compatibility with common restorative and cementation procedures.

Lack of Patient Sensitivity

No postoperative sensitivity was reported during the evaluation period.

Clincial Tips

- ◆ To avoid bending the brush head, puncture the foil of the *SingleDose* with the handle end of the applicator brush if you do not use the *VOCO Single Tim* brush.
- ◆ When using *Futurabond DC* for post cementation, do not light cure the bonding agent in the post space. ■

Bifix® QM

DUAL-CURE, UNIVERSAL, EASY CLEAN-UP RESIN CEMENT SYSTEM

Advantages

- Easy gel phase clean-up
- Truly universal for all luting indications and all substrates
- · Low film thickness saves occlusal adjustment time
- Low water uptake avoids shade shifting and bond failures
- Fast bonding with dual-cure self-adhesive Futurabond DC
- High radiopacity for easy x-ray identification



Presentation

REF 1217	Kit 10gm QuickMix syringe universal, 4ml each Futurabond DC Liquid 1 and 2, 5ml Ceramic Bond, mixing tips type 11, intraoral tips type 4, accessories
REF 1218	QuickMix syringe 10gm universal, mixing tips type 11, intraoral tips type 4, accessories
REF 1219	QuickMix syringe 10gm transparent, mixing tips type 11, intraoral tips type 4, accessories
REF 1759	QuickMix syringe 10gm white-opaque, mixing tips type 11, intraoral tips type 4, accessories
REF 1106	Ceramic Bond, bottle 5ml

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BIFIX QM – TECHNICAL DATA		
Flexural strength:	138 (LC) / 113 (CC) MPa	
Compressive strength:	297 MPa	
Curing depth:	4 mm / 10 s	
Working time:	2.5-3.5 min	
Setting time:	3 min after inserting the restoration	
Film thickness:	< 10 µm	

*with Futurabond DC



Futurabond DC

REF 1163 $\,$ 4ml Liquid 1 / 4ml Liquid 2, accessories

REF 1164 50 SingleDose, accessories REF 1165 200 SingleDose, accessories

