

**MIMIX<sup>®</sup> & MIMIX<sup>®</sup>QS**

**Bone Replacement System**



**BIOMET<sup>®</sup>**  
MICROFIXATION  
Anticipate. Innovate.™

# Innovative Products For The Repair Of Cranial Defects.

Anticipation and innovation. These two qualities have made Biomet Microfixation an industry leader. Founded by Walter Lorenz more than thirty years ago, Biomet Microfixation offers instrumentation, plating systems and related products for a wide range of surgical procedures.

Biomet Microfixation is proud to offer Mimix and Mimix QS, a hydroxyapatite (HA) based mixture of tetracalcium and an alpha ( $\alpha$ )-tricalcium phosphate material ideal for the repair of cranial defects. Both share the same proven quality, but Mimix QS sets in less time, providing the surgeon with quicker closure.

The optimal handling properties of both Mimix and Mimix QS include fast, easy mixing and implantation in a moist field. The indications for both are for the repair of neurosurgical burr holes, craniotomy cuts and restoration and augmentation of bony contour in the craniofacial skeleton. All Mimix material is easily moldable, biocompatible and designed to maintain consistent volume and size once the product has set.

In general, the longer working time of Mimix allows for better contouring of large defects (25cm<sup>2</sup> size) while the shorter setting time of Mimix QS allows for quicker closure.

## Mimix® & Mimix® QS Features

- Exhibits excellent biocompatibility
- More radiopaque than natural cranial bone and will not undergo any change in volume or size
- Mixed in an open bowl and sets in a typical surgical environment
- Sets at an isothermal temperature that will not damage surrounding tissue
- Easily shaped and molded for augmentation of small cranial defects as well as for onlay applications
- Can be placed directly on the dura

## Properties

|                       | Mimix®            | Mimix® QS                 |
|-----------------------|-------------------|---------------------------|
| Rapid Mixing:         | 30-45 sec         | 30-45 sec,<br>30 sec wait |
| Working Time:         | 2-4 min           | 1-2 min                   |
| Setting Time:         | 3-4 min           | 1-2 min                   |
| Hardening Time:       | 4-6 min at 37°C   | 4-6 min at 37°C           |
| Compression Strength: | 3,300 PSI at 37°C | 3,250 PSI at 37°C         |
| Sizes:                | 5, 10, 25 grams   | 5, 10 grams               |

Times are approximate and determined by simulated clinical use



## Mimix® Mixing Instructions

It is important to note that Mimix material should not be mixed with hands because the working time can be reduced significantly. Also, for optimal use, the Mimix powder should not be mixed with any liquids other than the dilute citric acid provided.

1. After opening the sterile packaging, take the vial of Mimix powder and pour it into the disposable bowl.
2. Next, take the vial of dilute citric acid, which is appropriately sized for the powder it is packaged with, and pour all the liquid into the same mixing bowl.
3. Using the mixing spatula, blend the powder and liquid together until they form a dough-like paste.
4. When the correct consistency has been achieved, begin applying Mimix material from the mixing bowl directly onto the defect site.

## Mimix® Handling Instructions Spatula Dip Test

After the Mimix material has been mixed, insert the spatula into the paste and retract. When the spatula end leaves an impression in the material without the material filling in, it is ready to be applied to the field. If the indentation fills in too quickly, or the material is too runny, continue mixing, then try the dip test again. If the material is too firm to indent with the spatula, you have mixed it beyond the working time and must start over.

Another alternative is to place the mixed Mimix material on the side of the bowl and tilt the bowl sideways. If the material slides easily down the side, it is too runny. If the material stays in place, it is the desired consistency.



## Mimix® QS Mixing Instructions

1. Open the sterile blister pouch and remove the Mimix QS bottles. Control hemostasis at the surgical site.
2. Open the bottle tops and empty the contents into the mixing bowl, taking care not to spill any liquid or powder. Ensure that all contents of bottles have been extracted.
3. Rapidly mix materials together for 30 seconds. Wait another 30 seconds and then apply the Mimix QS material to the defect. Complete all contouring within the one-to-two minute working time.
4. Mimix QS is an HA material that must be allowed to cure. While the material is setting, it must not be disturbed, because it could crack if manipulated. Allow the material to completely set before closing and do not attempt to drill directly into the implant, as this may cause the implant to shatter.

Note: For quality purposes, no more than 10 grams of Mimix QS should be mixed together at one time, or handling properties could be significantly altered.

## Mimix® Ordering Information

Each package of the Mimix formulation includes one pre-measured vial of powder, one pre-measured vial of dilute citric acid, disposable mixing container, a mixing spatula and four patient labels. Please contact your Biomet Microfixation distributor or our Customer Service Department to place your order.

Mimix Bone Replacement System is available in three convenient sizes and includes everything you need for mixing.

| Item #  | Description     | Volume   |
|---------|-----------------|----------|
| 02-2005 | 5 gram package  | 3.45 cc  |
| 02-2010 | 10 gram package | 6.9 cc   |
| 02-2025 | 25 gram package | 17.25 cc |

## Mimix® QS Ordering Information

Mimix QS is available in two convenient sizes and includes everything needed for mixing.

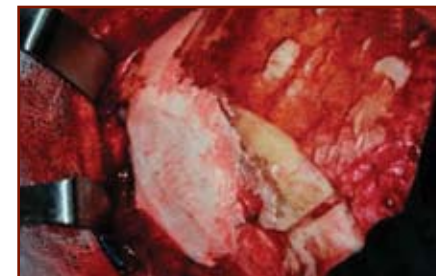
| Item #  | Description     | Volume  |
|---------|-----------------|---------|
| 02-1105 | 5 gram package  | 3.45 cc |
| 02-1110 | 10 gram package | 6.9 cc  |

## Cranial Augmentation Repair



### Pre-Operative

50-year-old male with left temporal unilateral hollowing due to muscle atrophy and flap settling.



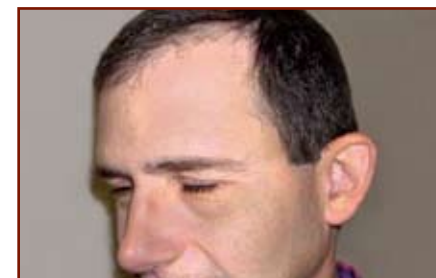
### Intra-Operative

Titanium plate was removed and cranium was augmented with the Mimix material.



### Post-Operative: 1 year

Frontal view



### Post-Operative: 1 year

Side view

*"I am very impressed with Mimix Bone Cement. Mimix is fast, predictable, sets quickly and is easy to handle. The results have always been excellent and it can be used to fix the smallest defect to the largest cranioplasty."*

Alexander Zouros, MD, FRCS(C)  
Pediatric Neurosurgeon,  
Loma Linda University Medical Center

**BIOMET®**  
MICROFIXATION  
Anticipate. Innovate.™

What fascinates you about the body is also what drives us. That's why we're always pushing the boundaries of engineering to make products that help you keep the human form as glorious as it was intended. To learn more about our breadth of products, call 800-874-7711 or visit us online at [biometmicrofixation.com](http://biometmicrofixation.com). We'd love to join you in a conversation about the future.

**BIOMET®**  
**MICROFIXATION**  
**Anticipate. Innovate.™**

For more information on Mimix® or Mimix® QS, please contact us at:

**GLOBAL HEADQUARTERS**

1520 Tradeport Drive • Jacksonville, FL 32218-2480  
Tel (904) 741-4400 • Toll-Free (800) 874-7711 • Fax (904) 741-4500 • Order Fax (904) 741-3059  
[www.biometmicrofixation.com](http://www.biometmicrofixation.com)

**EUROPE**

Toermalijnring 600 • 3316 LC Dordrecht • The Netherlands  
Tel +31 78 629 29 10 • Fax 31 78 629 29 12  
e-mail: [europa@biomet.com](mailto:europa@biomet.com)

As the manufacturer of this device, Biomet Microfixation does not practice medicine and does not recommend this product or surgical technique for use on a specific patient. The surgeon who performs any implant procedure must determine the appropriate device and surgical procedure for each individual patient. Devices shown in this brochure may not be cleared or licensed for use or sale in your individual country. Please contact your local distributor for information regarding availability of this product. Information contained in this brochure is intended for surgeon or distributor information only and is not intended for patient distribution.

All surgeries carry risks. For additional information, please see package insert or visit our web site at [www.biometmicrofixation.com](http://www.biometmicrofixation.com) or call 1-800-874-7711.

Mimix® is a registered trademark of Biomet Microfixation.