



Strong. Aesthetic. Metal-free.

ZERAMEX®



# Ceramics – a confident choice!

ZERAMEX® is a pioneer among modern two-piece ceramic implants. As a passionate innovator, ZERAMEX® is constantly working on developments in implantology. In doing so, it builds on the Swiss tradition of processing hard zirconia, called the “white diamond,” from which the implant is produced. As a long-term partner, ZERAMEX® allows you a range of options and can enhance your practice through reliable products that are easy to use and are tailored to the needs. What this means:

- **Key expertise in ceramic processing and Swiss quality**
- **An established implant system with an impressive performance record**



10 years of experience in two-piece ceramic implants



ZERAMEX® life-long guarantee of implants\*



ZERAMEX® 10-year guarantee of secondary components\*



Over 25,000 implants sold



FDA approval



Focus on ceramic



Customer consultation by ceramic experts



Innovative

\* The current warranty conditions apply. These can be found on our website [www.zeramex.com](http://www.zeramex.com).

# For maximum patient satisfaction.

The requirements placed upon dental implants have increased in recent years. First and foremost is the patient's wish to have both a healthy and attractive solution. ZERAMEX® is synonymous with a high quality of life thanks to the metal-free ceramic implants. The clinical use of ZERAMEX® implants can boast of an impressive success rate of over 96 percent<sup>9</sup> healing. Ceramic's high resistance to corrosion combined with the low plaque affinity minimizes the risk of inflammation<sup>11</sup>. In addition, blood flow to the gums around the implant is retained: One study found that the ceramic implant has characteristics similar to those of a natural tooth<sup>2</sup>. The benefits of ZERAMEX®:

> **Long-term aesthetics**

> **High compatibility**



Metal-free and corrosion-resistant<sup>4</sup>:



Simply attractive<sup>1</sup>



Minimize risks<sup>4,11,12,14</sup>



Swiss made



Gums love ceramic<sup>2,11</sup>



Clinically successful<sup>9,17</sup>

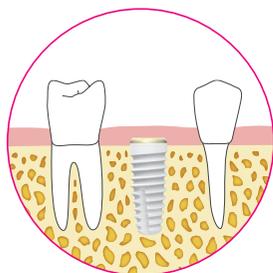
# The ZERAMEX® implant family.

## ZERAMEX® OFFERS YOU THE IDEAL SOLUTION!

The new ZERAMEX® XT implant is the latest member in the family of two-piece, reversible screw-in ceramic implants. The successful ZERAMEX® P6 implant with a soft tissue level design is ideal in the posterior area and offers easy access to the implant. The root-shaped design of the ZERAMEX® XT implant achieves high primary stability, and high prosthetic flexibility is ensured thanks to the new internal connection.



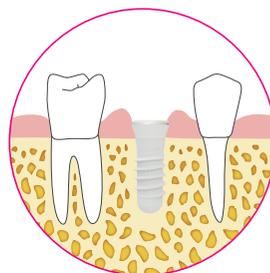
ZERAMEX® XT



- Conical implant shape (root-shaped)
- Bolt-in tube internal connection
- Variable placement depth (optional up to 0.6 mm supracrestal)
- ATZ ceramics
- VICARBO® screw



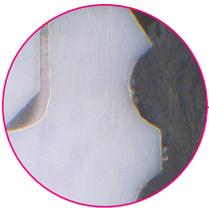
ZERAMEX® P6



- Tissue Level Design
- Hexagon head
- Variable placement depth (optional up to 0.8 mm supracrestal)
- ATZ ceramics
- VICARBO® screw

# Strong.

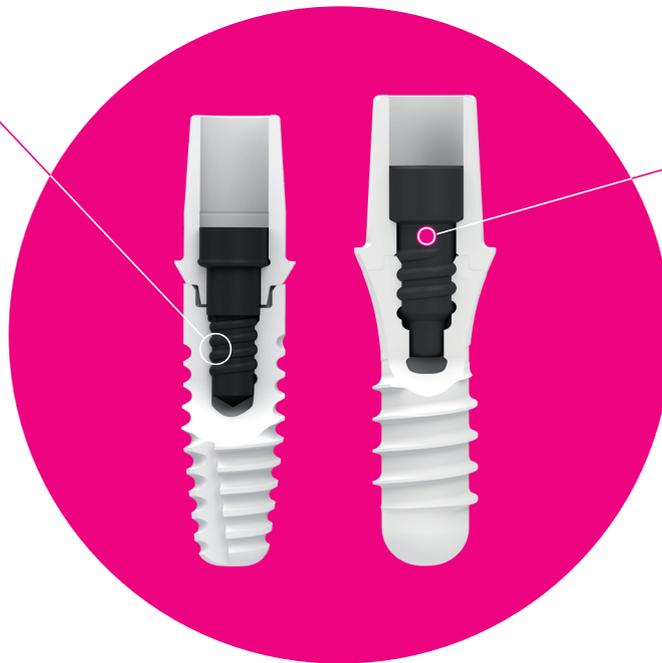
The latest generation of ZERAMEX® ceramic implants achieves strong connections thanks to the carbon-ceramic technology. The key component is the VICARBO® screw made of carbon-fiber-reinforced high-tech plastic. This material has excellent isoelastic properties and fits tightly against the existing contour. It creates a high-strength and form-fitting, albeit tension-free screwed ceramic-ceramic connection. The design of the connection was developed with the aim of minimizing bacterial colonization and accumulation.



The VICARBO® screw precisely fits the existing contour of the thread upon tightening, thanks to the very different E-modulus.



The continuous, form-fitting carbon fibers consistently absorb tensile forces and give the VICARBO® screw its high tensile strength.



## VICARBO® HIGH-PERFORMANCE CARBON TECHNOLOGY

The carbon-fiber-reinforced plastic has excellent isoelastic properties and obvious strengths: Metal-free, biocompatible in compliance with ISO10993 for long-term implants. Modulus of elasticity: >160 GPa., tensile strength: 2000 MPa.<sup>15</sup> (compared with Grade 5 titanium: Modulus of elasticity: 114 GPa., tensile strength: 1100 MPa.<sup>16</sup>)

## OUTSTANDING MATERIAL STRENGTH

ZERAMEX® ceramic implants have a high fatigue strength. Implants and abutments are made from highly compressed, hot isostatic post-compacted (HIP) zirconium dioxide ATZ blanks (hard zirconia). The result is high strength, biomechanical stability and a precise fit.

No thermal process (sintering) and no finishing occur after the final shaping of the external and internal implant geometry. This ensures a high level of precision, and no more changes can occur in the material structure. This manufacturing process is very elaborate and requires much experience and know-how.

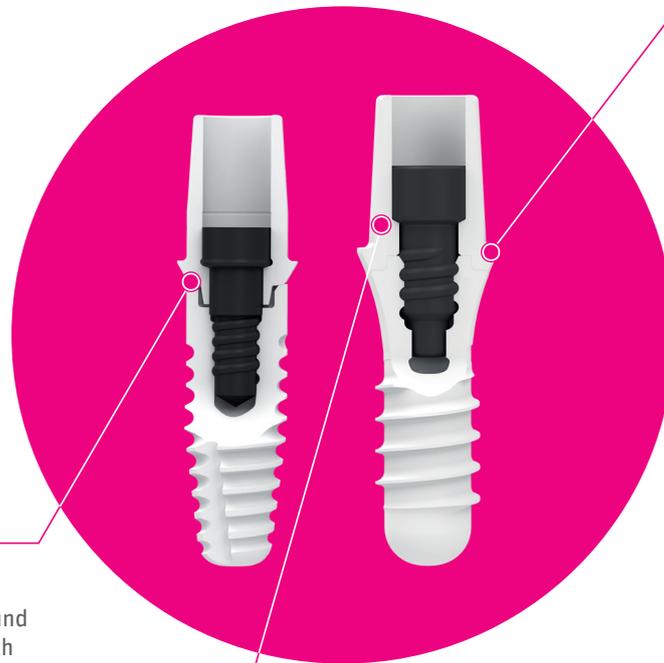
## FATIGUE STRENGTHS IN COMPARISON (according to ISO 14801)<sup>17</sup>



- A** ZERAMEX® P6, ø 3.3 mm, SN, and ZERAMEX® P6 Abutment SN Straight
- B** ZERAMEX® P6, ø 3.3 mm, SN, and ZERAMEX® P6 Abutment SN Angular

# Aesthetic.

The patient demand for ceramic implant solutions is continuously increasing. The megatrend towards white, metal-free dentistry, which started years ago, continues to grow. The two-piece, reversible screw connection can facilitate unhindered healing of the implant and optimize accommodation by soft tissue. Together with the white color and favorable tolerability by the gums<sup>11</sup>, long-lasting aesthetics are ensured.

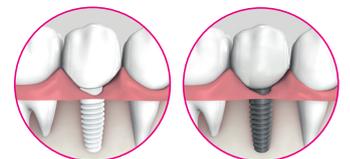


## OPTIMUM GINGIVAL BLOOD FLOW

Blood circulation in the gingiva around zirconium dioxide is comparable with that around a natural tooth, while blood circulation in the gingiva around titanium is significantly lower.<sup>2</sup> The reduced build-up of plaque makes hygiene easier for patients and promotes inflammation-free gums.<sup>11</sup>

## NATURAL AESTHETICS

The white tooth color of zirconium dioxide is visually superior to gray titanium because there are no gray edges, and a dark implant core does not shine through.<sup>1</sup> In the case of thin gingiva or gingival retraction, ceramic implants have an advantage with their white tooth aesthetics.



Situation after potential recession of gingiva.

Left: Restoration with ZERAMEX®.

Right: restoration with a conventional titanium implant.

## PROSTHETIC FLEXIBILITY

Thanks to the two-piece, reversible screw-in design, ZERAMEX® implants have high prosthetic flexibility, yet remain simple and well-designed systems. Use common procedures and provide full-ceramic, screw-in restorations. Through familiarization with the CAD/CAM systems of Exocad and 3Shape (ZERAMEX® P6), you will also benefit from the advantages of a digital workflow.

# Metal-free.

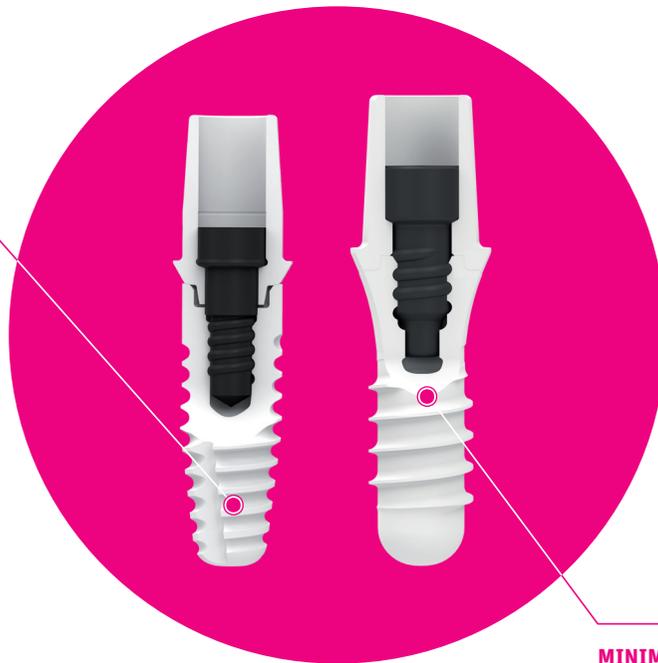
The 100-percent metal-free ceramic implants closely approximate the natural tooth root in terms of aesthetics and function. They are well tolerated, are completely free of metallic corrosion, and conduct neither electricity nor heat. Titanium can release titanium ions, which accumulate in the surrounding soft tissue and can cause inflammation.<sup>5</sup> Likewise, titanium's resistance to corrosion can decrease due to surface bacteria.<sup>14</sup> The use of metal-free ceramic implants precludes these effects.

## OUTSTANDING OSSEOUS INTEGRATION

The surface structure is optimized through sandblasting and etching to permit osteoblasts to grow directly on the implant, allowing a solid attachment to the surface of the implant.<sup>13</sup>



Sectional view after eight weeks: successful osseous integration of the hydrophilic ZERAFIL™ surface to ceramic. Working group of Prof. D. Buser, University of Bern, Switzerland<sup>13</sup>



## MINIMIZING RISK FACTORS

Long-term studies demonstrate that peri-implantitis is a risk associated with implant treatments.<sup>3</sup> If left untreated, peri-implantitis can result in the loss of the implant. The ZERAMEX® P6 implant can help minimize certain risk factors of peri-implantitis:

Plaque<sup>12</sup>:

→ Low plaque affinity of ceramic<sup>11</sup>

Metallic corrosion<sup>4,14</sup>:

→ Ceramic cannot succumb to metallic corrosion

**Our recommendation:**

IMPLANT TYPE	ZERAMEX® P6	ZERAMEX® XT
Anterior region	+	++
Posture region	++	+
Thin mucosal biotype	++	++
Vertical/lateral bone growth with simultaneous implant insertion (at least 5 mm residual bone height)	+	++
External sinus lift	possible	++
Covered healing	+	++
Open healing	++	+
Immediate implant insertion in extraction alveoli	+	++

+ recommended ++ highly recommended

**You can use ZERAMEX® to treat the following indications:**



**Single tooth**



**Partial bridge**



**Full bridge**

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