



## **Ceramics connects** - Tradition with innovation

Do you know what oxide ceramics are? These high-tech materials have been serving people well for a long time now, due to their outstanding characteristics.

Today, we live and work with oxide ceramics in the form of practical and esthetic objects that often make our lives significantly easier, for example the various possibilities for (a variety of prosthesis) implants. Oxide ceramics are also suitable for the application in decorative elements such as in the watch-, jewellery- and automotive industries, where these materials impress with their exceptional optics and haptics. You are familiar with this world of so-called technical ceramics. And so are we.

The production of ceramics initially requires clay. So, it is no surprise that the roots of our company originate in the Thayngen clay works founded in 1914. At that time, the material was predominantly processed for roof and wall products.

On the basis of our history and experience, further development of the natural clay resulted in today's oxide ceramics.







# **High performance ceramics** with history and future

Our unwavering fascination of ceramics resulted in the foundation of today's Metoxit AG in 1978, and since this time we have been committed to specialize in oxide ceramics in connection with increasingly innovative products. Heading into the future backed by tradition (and know how) so-to-speak.



## Our most important innovations

- 1983: Femoral heads produced from ultra-pure aluminium oxide Al999 for the first time, and first use of the BIO-HIP® method for products made from oxide ceramics
- 1985: First hip joint balls produced from zirconium oxide TZP
- 1986: First high quality watch case produced from black zirconium oxide TZP
- 1989: FDA approval of hip balls made from zirconium oxide TZP
- 1991: First ceramic dental root pins on the market
- 1993: First dental CAD-CAM materials
- 1997: Introduction of the ISO 9001 quality management system
- 1997: First hip joint balls produced from zirconium oxide TZP-A
- 2003: First axial pressed CAD/CAM discs for milling dental prosthetics

- 2005: Introduction of Z-CAD HTL 3Y discs with higher translucency in group colors
- 2009: First Ziraldent Implantats and burs from zirconium oxide
- 2011: Development of new colors for the luxury industry segment
- 2014: Introduction of Z-CAD Smile 5Y discs, hightranslucent zirconium oxide
- 2015: Progression of Z\_CAD Smile 5Y discs in 16 primary colors
- 2018: Introduction of Z-CAD One4All 4Y discs in white and 19 primary colors
- 2019: Progression of Z-CAD One4All 4Y discs, as multilayer version in 16 primary colors





Nowadays we work with around 70 employees on a wide range of products, in large quantities.









No matter if it is for dentistry or medical engineering, for watches, machine construction or chemical industries – the basis is always our high-performance oxide ceramics. Virtually the entire value-added chain remains in Thayngen. Swiss workmanship, which guarantees optimum quality controlling (, consistency) and allows us to react in a quick and reliable manor to fulfil all customer expectations. Today, we work with around 70 employees to manufacture products for a wide range of applications in high unit quantities.

#### www.metoxit.com

The Swiss Pioneer of Dental Zirconia #metoxit



## Oxide ceramics for dentistry and orthopaedics

The optical effect of the tooth is defined by the combination between colour intensities, translucence, opalescence and fluorescence. When it comes to dental implantology and orthopaedics, our customers can rely on the

40 years of expertise of Metoxit AG. The bio-compatible and esthetically sophisticated materials, which are undergoing constant further development, are setting new benchmarks and standards on the market.

#### **Materials** that are used:

Aluminium oxide Al999-HIP, ZTA-HIP Zirconium oxide TZP-A-HIP, ATZ-HIP, Z-CAD® family 3Y, 4Y und 5Y

#### Femoral heads and hip sockets

Strong materials, bio-compatible and reliable. Available in a wide variety of colours due to a unique process.

#### Wrist prostheses

Highest standards with regards to shape and position tolerances, with ultra-fine polished surfaces.



#### **Dental implants**

Inert bio-compatible materials with the highest esthetic standards.



CAD/CAM Scheiben

Höchste Transluzenz, kombiniert mit optimaler Festigkeit bringt Schönheit im CAD/CAM.





Nozzles

Metal/ceramic connections through adhesion, shrinkfitting, screwing or clamping. Our structures **hold fast!** 



Intervertebral discs

Precision due to high production quality, tight dimensional tolerances and optimised surface machining.



## Oxide ceramics for industry

Are are based on ultra-pure aluminium and zirconium oxides and are therefore not just a substitute for other materials, but an extremely multifaceted material. Working together with you, we achieve a win-win situation:

You know the application conditions and requirements applicable to your daily work with oxide ceramics – we know the diverse possibilities and the outstanding technical properties.

Thanks to wear and pressure resistance, high application temperatures, optimum corrosion resistance, excellent compatibility and not least esthetic adaptability, we manufacture products that you can rely on.

Working together with you, in addition to our renowned range for a wide variety of sectors - which has been tried and tested a million times over - we also develop the precise solutions that you are looking for. Future-oriented products that go with the dynamics of your market. In the spirit of: Ceramics connect. We look forward to working with you.

#### Materials that are used:

Aluminium oxide Al998, Al999, Al999-HIP, ZTA, ZTA-HIP Zirconium oxide TZP, TZP-HIP, TZP-A, TZP-A-HIP, PSZ, ATZ-HIP, FSZ



High pressure pistons

Precision due to high production quality, tight dimensional tolerances and optimised surface machining.



Cores

Perfect wear resistance combined with high reproducibility results in optimum increased productivity.



Watch cases

Our coloured zirconium oxide impresses with brilliant esthetic and stunning haptics. And the precision will meet all your requirements.

## Quality, we are certified!



Certification of Metoxit AG in accordance with the current valid standards:

ISO 9001 ISO 13485 + AC

Directives for food products in accordance with 2005/31/EC and 1935/2004/EC The bio-ceramic materials are according to the current valid standards for:

Aluminium oxide Al999 ISO 6474:1 Aluminium oxide ZTA ISO 6474:2 Zirconium oxide TZP-A ISO 13356

Metoxit supplies all documents required for the registration of your products in accordance with the requirements per Annex II of the directive 93/42/EEC and FDA 510 (k).











Metoxit AG is an innovative Swiss company with a dynamic team. We look forward to working together with you on your next project!