



What your patient expects – and nothing less!

Beautiful teeth and a brilliant smile – this is what most patients desire. Now more than ever, this is the main motivation for the patient's decision for an implant-supported restoration. Well informed patients consult the dentist with high expectations. They require a fast restoration with predictable and excellent esthetic results.

Implant dentistry is considered a successful routine procedure in most dental practices. However, the patients' desire for a naturally appealing smile is a particular challenge for the dentist and the dental technician. Apart from esthetics, an intact implant-supported restoration combines a balanced relationship between function, durability and biocompatibility.

Limits are there to be overcome!

Titanium abutments have become the standard care in implant prosthodontics. However, their limits are shown by the lack of translucency and inadequate adaptation to the gingiva's individual characteristics. A bluish metallic shimmer at the restoration margin leads to unsatisfactory treatment results, particularly in patients with a high smile line and/or thin soft tissue.

CERCON® ceramic abutments require no compromises. CERCON® abutments are manufactured from high performance zirconium oxide and are completely metal free. They offer implant ceramic

restorations which are virtually identical to natural teeth. The anatomical shape of these abutments makes them easy to customize according to the patients' needs.

More than just beauty!

CERCON® ceramic abutments, available for ANKYLOS® and FRIALIT®/XiVE® implants, are a milestone in superior esthetics. They are available in two color shades to match natural teeth: soft ivory (CERCON® dentin) and brilliant white (CERCON® neutral). The abutments can be perfectly adapted to the gingival margins and harmonize ideally with the shade of the surrounding teeth. The development of these high-quality zirconium oxide abutments is the result of the successful synergy between DeguDent and DENTSPLY Friadent. They demonstrate modern dental research and decades of increasing expertise in materials. CERCON® crown abutments have been developed based on the bundled experience with dental ceramics, dental technology and implant prosthetics of the two companies. We at DENTSPLY Friadent are continuously working to improve current technologies to meet the demands of the dental market. We have made it our mission to develop and establish new treatment alternatives and innovative materials. Our goal is to support you in meeting the demands of your patients in the best possible way.



Beauty is in the eye of the beholder ...

As tough as it gets – zirconium oxide!

Zirconium oxide, an extremely durable high performance ceramic, has been established in human medicine for more than thirty years. Its mechanical stability and extreme strength, excellent esthetics and biological safety make it a valuable asset to dentistry. In materials science zirconium oxide is considered the ceramic equivalent to steel. DENTSPLY Friadent has been able to optimize its basic properties for the CERCON® abutments with a specialized manufacturing process and specific additives.

The mechanical properties of ceramic materials are equivalent to those of metals, yet biologically superior. However, conventional ceramics entail the problem of being brittle and tending to crack. This challenge has been overcome with the introduction of the new CERCON® abutments of yttrium-stabilized zirconium oxide.

Zirconium oxide is the only high performance ceramic with such an extremely high component strength. Its bending and tensile strength is extraordinarily high and results in high fracture and corrosion resistance. Another property of zirconium oxide, unique among dental ceramics, is its pseudo-elasticity. If a micro-crack occurs in the material, the crystalline structure is able to transform and to prevent the crack from progressing. These properties allow zirconium oxide to “self-repair” existing cracks or prevent further crack spreading.



SEM CERCON® microstructure: yttriumoxide stabilized, tetragonal zirconium dioxide (Y-TZP). The fine-grained and dense structure allows the production of implant abutments with high fracture toughness, bending and tensile strength.



DeguDent and DENTSPLY Friadent have combined their expertise in close cooperation to develop CERCON® implant abutments.

The benefits of CERCON®:

- Maximum component precision due to high mechanical stability of zirconium oxide ceramic
- Natural appearing crown contours with customizable abutments
- Abutments can be milled safely (water-cooled) due to the material's break and tear resistance
- Extremely high loading resistance offers excellent long-term prosthetic results



A glance at beauty – zirconium oxide!

*Clinical case:
Dr. H.-C. Lauer,
Frankfurt/Germany*

The brilliance of a smile is the result of tooth enamel light refraction. Light dynamics of teeth is determined by the reflection and transmission of light at the tooth structure. Their natural beauty is the result of an interplay of light characteristics such as opalescence, transparency, translucence and fluorescence.

The optical properties of full-ceramic restorations offer a decisive advantage when compared to titanium abutments. Ceramic abutments hold no risk of dark metal shining through thin peri-implant soft tissues. Ceramics and their natural light behavior are essential for the fabrication of highly esthetic restorations; in particular in the cosmetically relevant anterior region.

However, not all ceramics are alike. The particular feature of zirconium oxide is its reflection and transmission of light. With its brilliance and vitality it offers

an equivalent appearance to that of the natural dentition. By using CERCON® porcelain abutments you place your patients in the right light. FRIADENT® CERCON® abutments are available in two shades of white – soft ivory (CERCON® dentin) and brilliant white (CERCON® neutral). The wish for natural esthetics becomes true!

The benefits of CERCON®:

- Natural soft tissue profile with metal-free ceramic abutments
- Individual color selection in two shades of white
- Predictable success with superior esthetics of full-ceramic abutments
- Brilliant light characteristics of zirconium oxide meet all patients' demands





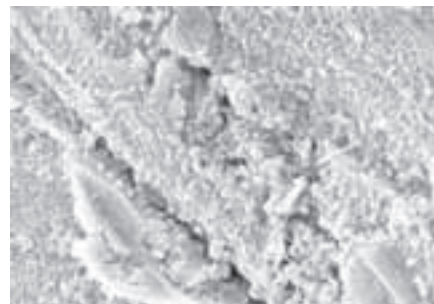
Patients are increasingly aware of possible allergies or electrical potentials of metallic restorations. The tissue compatibility of a dental material plays a significant role in patient acceptance. With CERCON[®] you are always on the safe side. Metal-free CERCON[®] implant abutments and corresponding veneer ceramics now allow the precise fabrication of full ceramic implant restorations with extraordinary component stability.

Material behavior is of particular importance with regard to the long-term biocompatibility of a prosthetic restoration. The main concern is plaque adhesion and bacterial colonization. Zirconium oxide ceramic is exemplary in this respect. The excellent surface properties of CERCON[®] abutments favor an expedite and bacteria-sealed gingival attachment. Recent studies confirmed a reduced plaque and bacteria adhesion on CERCON[®] ceramic compared to titanium.

With these properties FRIADENT[®] CERCON[®] abutments actively contribute to the protection of the peri-implant hard and soft tissues. They are extremely biocompatible and ensure a durable, cosmetic restoration, thus meeting your patients' expectations.

The benefits of CERCON[®]:

- Completely metal-free implant restorations
- Reduced plaque adhesion due to ideal surface characteristics of zirconium oxide
- Biological safety and clinically proven biocompatibility
- Maintenance of healthy peri-implant tissue due to bacteria-sealed gingival attachment



*Titanium.
A homogeneous layer of cocci or filamentous bacteria covers the titanium surface (by courtesy of A. Scarano).*



*CERCON[®].
A small number of bacteria covers the zirconium oxide surface (by courtesy of A. Scarano).*

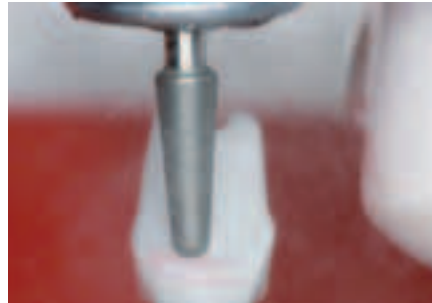
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Implant-supported single crown – Step-by-step



1__The correctly fitting CERCON® abutment is selected.



2__A special grinding set is available for customizing CERCON® abutments (DeguDent, Ceramic Line).



3__ CERCON® abutments must be water-cooled during preparation.



4__Following preparation, the customized CERCON® abutment is tried-in.



5__The full ceramic crown is seated following cleansing and disinfection.

The superstructure is preferably fabricated with the CERCON® Smart Ceramics® System from DeguDent. The framework can thus be fabricated from zirconium oxide. Press ceramic techniques such as Cergo® may also be used.

*Clinical case:
Dr. C. R. P. Araujo, São Paulo/Brasil*

... and in the selection of the appropriate material

Products are not available in the United States.

Order No. 6-002021/001

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