

# PRESS RELEASE | DENSPLY FRIADENT

## **CERCON ceramic abutments® – naturally attractive**

An esthetically demanding solution that is very compatible to the human body

Mannheim, December 23, 2008 – **CERCON® ceramic abutments manufactured from zirconium oxide, the high-performance ceramic, give patients what they want: naturally white teeth and attractive esthetics. As a material with outstanding dynamic light properties, zirconium oxide provides a naturally brilliant white appearance. CERCON® has the advantage that there are no gray metal components to show through the thin mucosa, making it particularly advantageous for patients with a high smile line or thin and semi-transparent soft tissue.**

**Zirconium oxide is considered the ceramic equivalent of steel. It is extremely resistant to wear. Another advantage of zirconium oxide is its pseudoelastic properties. The crystalline structure begins to change in such a way that it stops the progress of a crack in the ceramic and closes it again. In effect, the material repairs itself. Numerous studies also confirm that CERCON® abutments are very biocompatible. Plaque adhesion and bacterial deposition are significantly reduced compared to titanium abutments.**

### **Always on the safe side with CERCON® ceramics**

The titanium abutments that are the standard solution in implant prosthetics have a significant disadvantage in esthetics. CERCON® abutments manufactured from high-performance zirconium oxide ceramic do not have a metal base.

This property means that a porcelain denture can be placed on implants and it will be visually indistinguishable from natural teeth. Users can also shape the anatomically shaped abutments to a limited degree.

## **Zirconium oxide – mechanically stable and resistant to wear**

Zirconium oxide has been firmly established in human medicine for more than 30 years. More specifically, zirconium oxide is also firmly established in dentistry with its strong resistance to wear, its biological safety and its outstanding esthetics.

In materials science zirconium oxide is considered the ceramic equivalent to steel and it is very resistant to wear. From a biological point of view zirconium oxide is actually superior to steel. In contrast to conventional ceramic abutments, CERCON<sup>®</sup> abutments consist of yttrium-oxide-stabilized zirconium oxide, which is extremely strong and very resistant to fracture and corrosion. These properties allow abutments to be ground with water-cooling.

The pseudoelasticity of zirconium oxide is another important property for dental ceramics. If a crack forms, the crystalline structure of the material changes, the progress of the crack is stopped and can be closed. The material practically repairs itself.

## **CERCON<sup>®</sup> abutments – superior esthetics**

A decisive factor for the success of prosthetic treatment for patients is the visual impression. Ceramic abutments offer a clear advantage here in comparison with implant abutments made of titanium. The use of ceramic abutments means that there are no metal components to show through thin mucosa. Natural-appearing light characteristics are also important, particularly in the front-tooth region.

The interaction of dynamic light features such as opalescence and transparency is a standard feature of zirconium oxide, giving it the appearance of a genuine tooth. CERCON<sup>®</sup> abutments for the ANKYLOS<sup>®</sup>, XiVE<sup>®</sup> and FRIALIT<sup>®</sup> implant systems, unlike products from other suppliers, are available in two different shades (CERCON<sup>®</sup> dentine and CERCON<sup>®</sup> neutral). This is the only way of achieving a result as close to nature as possible, because very few natural teeth are pure white. The abutments can be perfectly adapted to the line of soft tissue and harmonize the crown with the actual tooth color of the patient.

### **Biocompatibility**

When the extended contact with human tissue is considered, the question of the biocompatibility of a material is particularly important. CERCON<sup>®</sup> abutments allow dentures to be completely metal-free. Zirconium oxide abutments can be precision-manufactured because of the stability of the material. The ideal surface characteristics of CERCON<sup>®</sup> are favorable to fast and bacteria-proof deposition of the gingiva. Studies have confirmed that CERCON<sup>®</sup> abutments demonstrate significantly reduced plaque and bacterial adhesion compared to titanium abutments. Therefore, CERCON<sup>®</sup> abutments make a major contribution to effective protection of the peri-implant hard tissue and soft tissue. They are highly biologically compatible and contribute to an attractive prosthetic restoration over the long term.

### **CERCON<sup>®</sup> Abutments: clearly superior to single-component implant solutions**

The CERCON<sup>®</sup> abutments for all three DENTSPLY Friadent implant systems offer clear advantages over single-component implant solutions of zirconium oxide over both the short term and the long term. The long-term success rate of these systems has been clinically proven and documented for many years. The great advantage of two-component systems is that they can be shaped outside the patient's mouth easily and without any danger to the patient. The denture can also be modified at any time if conditions change – such as retraction of soft tissue during the healing phase of the implant.

## **DENTSPLY Friadent company portrait**

DENTSPLY Friadent is the implant division of the American company DENTSPLY International, the world leader in the dental industry with over 9,000 employees in total. At its company headquarters in Mannheim, Germany, the implant specialist employs a staff of around 450 and is one of the most innovative and leading companies in its industry. The company is represented around the world with its own subsidiaries, DENTSPLY sister companies and dealers.

The functionally and esthetically sophisticated implant-based dental solutions allow people a self-confident and natural smile. With its brand implant systems ANKYLOS<sup>®</sup>, XiVE<sup>®</sup> and FRIALIT<sup>®</sup>, as well as its FRIOS<sup>®</sup> line of surgical instruments and bone replacement materials, DENTSPLY Friadent offers a comprehensive portfolio of dental prosthetic solutions with excellent clinical results. Alongside the strong product brands, the successful product range is rounded off with innovative technologies, such as computer-aided implantation with ExpertEase<sup>™</sup>, the surface technology FRIADENT<sup>®</sup> plus or zirconia technology CERCON<sup>®</sup> in association with the world market leader DENTSPLY, and a practice marketing and practice management program tailored to practices offering implantology under the *stepps*<sup>®</sup> service brand.

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