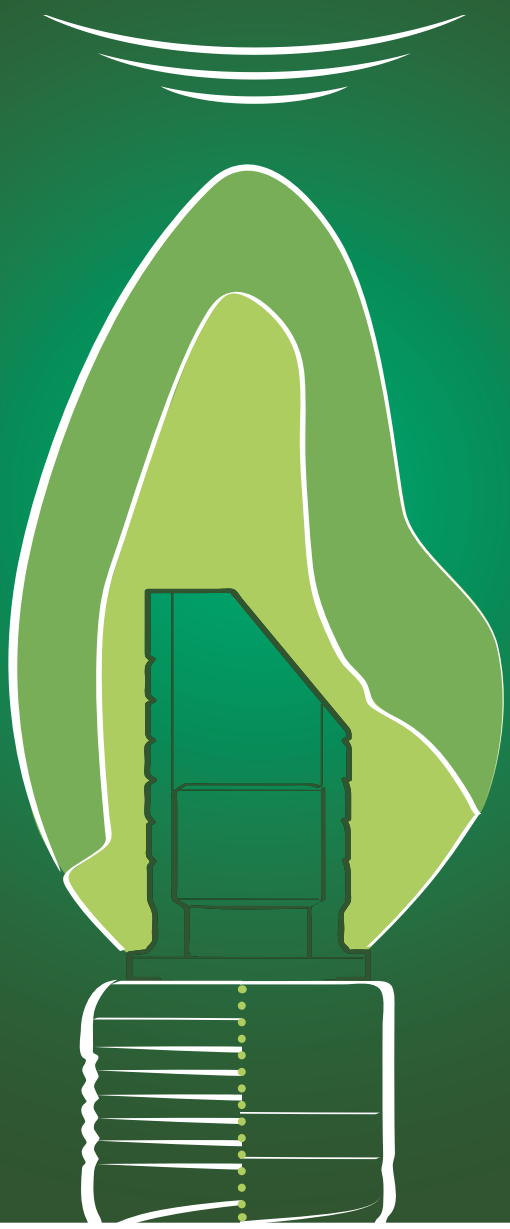
SKYonics
IMPLANTOLOGY MEETS BIONICS

IMPLANT PROSTHETICS

WITH BIONIC HIGH-PERFORMANCE POLYMERS



bredent medical

SKYonics
IMPLANTOLOGY MEETS BIONICS

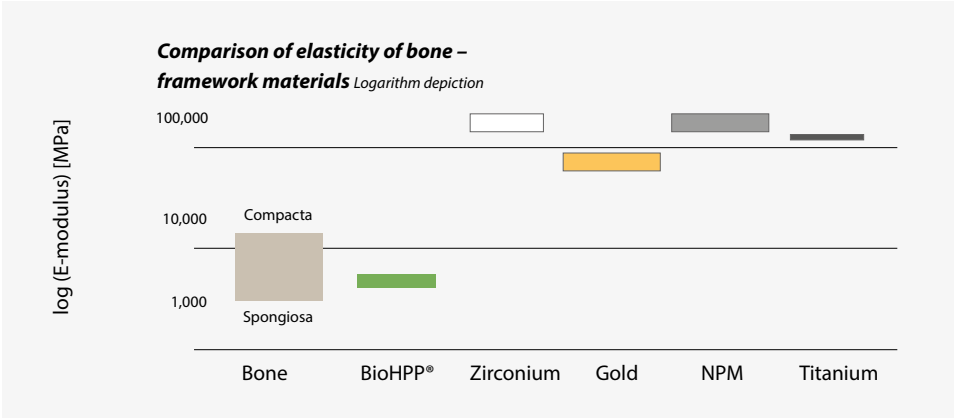
bredent group implant treatments with bionic high-performance polymers

SKYonics covers tissue-related implant management, implant prosthetics with bionic high-performance polymers as well as implant treatments for immediate restoration.

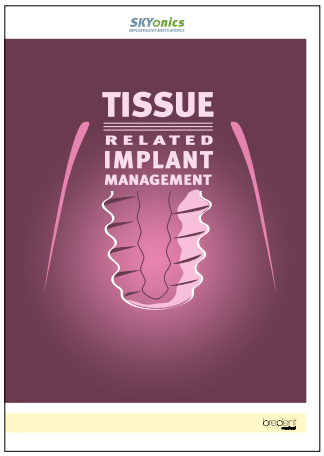
The SKY® implant family forms a basis with high primary stability for cross-disciplinary implant treatments that make optimal use of local bone. They are bonded using high-performance polymers such as BioHPP® and HIPC. This allows ground-breaking restorations that provide patients with a natural-looking and physiological framework, as BioHPP® possesses a similar degree of elasticity to natural bone.

With the aesthetic and functional visio.lign® system, the bredent group is able to offer a host of possibilities for physiological veneering that demonstrates optimal bonding with all framework and veneer materials. These elements underpin the successful application of a host of immediate restoration treatments for cases ranging from single and multiple tooth loss up to total edentulism.

Today, the bredent group is the world leader in combining implantology and bionic prosthesis materials. Thanks to its in-house development and production, the bredent group is a pioneering innovator in optimising implant prosthetics using bionic high-performance polymers.



The bredent group is opening up new avenues for providing patients with even more natural-looking restorations. Improved implant prosthesis solutions from one single source in the interest of patients and our partners – that is the bredent group.



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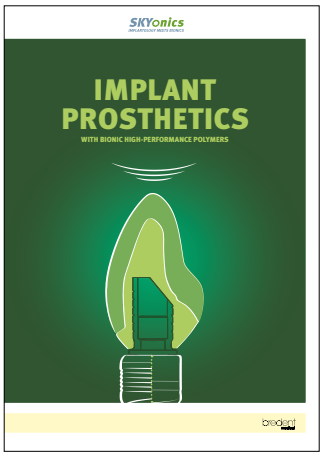

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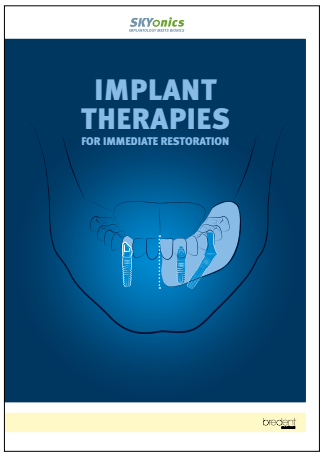

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The SKY® Implant system –

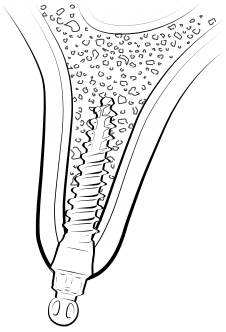
providing a basis with high primary stability for optimal utilisation of local bone[1]

The enhanced primary stability of the SKY® implant system is maintained even after insertion, and the three-dimensional surface structure of the osseo-connect surface (OCS)® results in rapid osseointegration without loss of stability[1)].

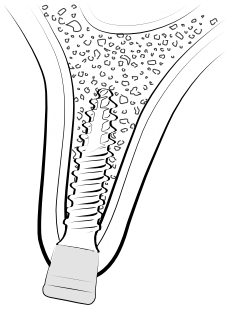
The two types of coronal neck design allow for optimal soft tissue management, which ensures a stable bone level in the case of transgingival and isocrestal implant insertion.

[1)] *Marković et al: Evaluation of primary stability of self-tapping and non-self-tapping dental implants. A 12-week clinical study, Clinical Implant Dentistry and Related Research 2013*

Narrow

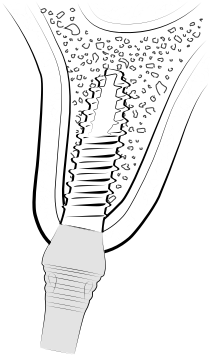


mini[1] SKY 2.8

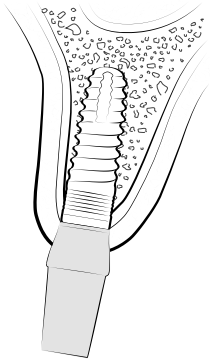


mini[2] SKY 2.8

Reduced diameter

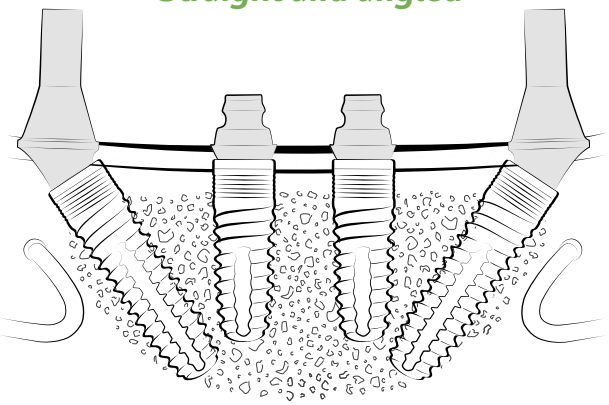


mini[2] SKY 3.2



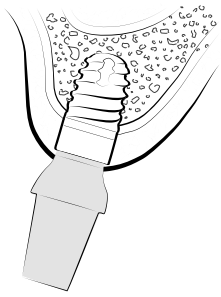
narrow SKY

Straight and angled



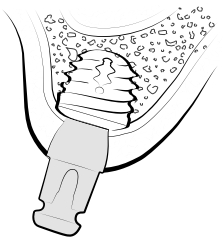
blue SKY

Short



supracrestal

classic SKY (tissue level)



isocrestal

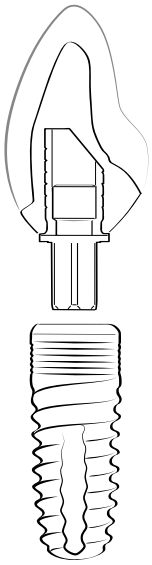
copa SKY

[1)] *For more information on the SKY ® implant system, please call +49 (0) 7309 / 872-600 to request the 'Tissue Related Implant Management' brochure (REF 009913GB).*

▶▶

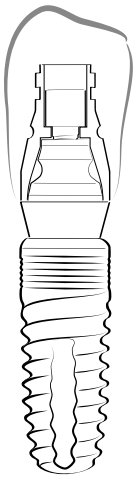
Smart connecting elements

in support of implant prosthetics



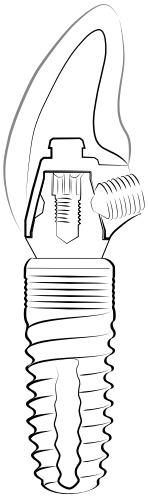
BioHPP® SKY® elegance

The BioHPP® SKY® elegance abutments are hybrid abutments in which the abutment body made of BioHPP® is bonded to the titanium base without a gap. They combine the properties of temporary and permanent abutments, meaning that there is no need for replacement of the abutment. As a result, the gingiva is not subjected to multiple traumas. In addition, the time and costs are reduced.



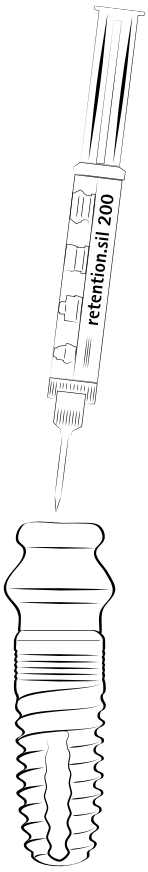
SKY® uni.cone

The SKY® uni.cone reduced-diameter abutment system enables rapid and aesthetic restorations. The abutments can be screwed both occlusally and transversely. SKY® uni.cone is the perfect complement to SKY® fast & fixed and the ideal solution for edentulous jaws.



Transversal screw retention

Self-centring transversal screw retention enables aesthetic restoration, as there are no screw channels to impede construction. This means that even patients with a lower gingiva can receive aesthetic treatment. The screw always remains part of the secondary construction, meaning that threading is not required in the case of intra-oral application. In addition, the screw can be opened and closed with just a few turns.



retention.sil & TiSi.snap

SKY® TiSi.snap abutments are particularly suitable for resilient fixation of prostheses. retention.sil is worked into the prosthesis from the basal direction for restorations using two implants with SKY® TiSi.snap abutments. This enables secure and reliable prosthesis fixation, which guarantees stability and ultimate comfort even when chewing.

Bionic high-performance polymers

have been in use in human medicine for over 35 years

BioHPP® – for a natural jaw movement pattern

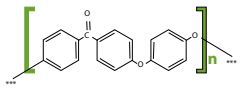
BioHPP® is a temperature-resistant high-performance polymer reinforced with ceramic particles. Treatment with BioHPP® significantly reduces the chewing force peaks in comparison with titanium, zirconium and ceramic. This force-cushioning quality results in a pleasant sensation for patients, reduces functional impairments and technical complications and protects the implants during osseointegration.

visio.lign® – the aesthetic and functional system

visio.lign® boasts a unique degree of flexibility for ensuring natural beauty, functionality and physiology. The open system ensures flexibility and freedom by way of six coordinated components, and is the perfect system component for all conventional framework materials – especially BioHPP®. The result: long-lasting, discolouration-resistant and durable restorations.

2004

bredent is the first company worldwide to introduce a framework material based on PEEK.

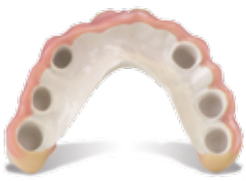


2007

bredent presents the visio.lign® product range for aesthetic restorations and a primer system to ensure secure bonding with a range of materials.

2011

BioHPP® is released as a universal, tooth-coloured framework material for fixed, removable, implant-supported and permanent dentures.



2013

With BioHPP® elegance, bredent is able to offer the first individual hybrid abutment without an adhesive gap as a physiological and technically mature alternative to titanium abutments.

2014

Thanks to breCAM.BioHPP and breCAM.HIPC, the digital benefits can be integrated into the CAD/CAM workflow

2016

Individual hybrid abutments with BioHPP® elegance prefabs can be produced in less than 15 minutes.

SKYonics

in analogue and digital workflows

ANALOGUE

visio.lign®

Image: Sebastian Schuldes (MDT), Eisenach, Germany

copa SKY

narrow SKY

blue SKY

Whether analogue or digital, SKYonics provides the perfect opportunity for optimising implant prosthetics by way of high-performance polymers in any workflow.

DIGITAL

Veneering

Image: Lab. Od. Antonio Lazetera, Savona, Italy

Frameworks

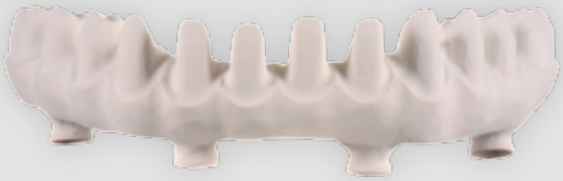
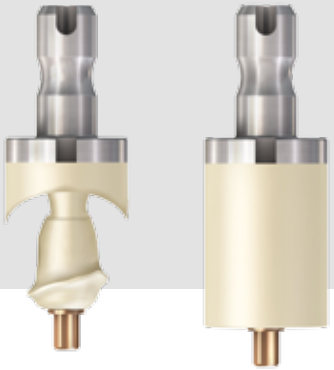


Image: Lab. Od. Antonio Lazetera, Savona, Italy

Abutments



classic SKY

white SKY

Trust SKYonics –

tried-and-tested in practice

Teeth with apical foci before tooth extraction

Soft tissue situation after socket preservation

Intraoral customised BioHPP® SKY® elegance abutments

Insertion of long-term temporary device

Regenerated soft tissue after 8 weeks

One-year recall for permanent treatment

When it comes to implant treatments in particular, the existing bone bed may not always be optimal, and may have been impaired by general illnesses, long-term edentulism or numerous augmentations[1]. In order to guarantee a stable long-term result nonetheless, 'progressive bone loading' is recommended to prevent overloading of the soft bone bed, which can result in increased bone loss around the implant or even loss of the implant[2]. This makes it possible to reduce healing time and carry out successive bone training to enable further differentiated osseointegration. The new BioHPP® elegance abutments combine the benefits of bionic temporary abutments with the titanium screw seat of permanent abutments, meaning abutments no longer need replacement and making one-off treatment a reality. This reduces treatment times and stabilises soft tissue to ensure aesthetic success in the long term[3].

[1] *Palma-Carrio C, Maestre-Ferrin L, Penarrocha-Oltra D, Penarrocha-Diago MA, Penarrocha-Diago M. Risk factors associated with early failure of dental implants. A literature review. Med Oral Patol Oral Cir Bucal 2011;16:e514-517.*

[2] *Appleton RS, Nummikoski PV, Pigno MA, Cronin RJ, Chung KH. A radiographic assessment of progressive loading on bone around single osseointegrated implants in the posterior maxilla. Clin Oral Implants Res 2005;16:161-167.*

[3] *Grandi T, Guazzi P, Samarani R, Maghaireh H, Grandi G. One abutment-one time versus a provisional abutment in immediately loaded post-extractive single implants: a 1-year follow-up of a multicentre randomised controlled trial. Eur J Oral Implantol 2014;7:141-149.*

Images: Dr. Burzin Khan, Mumbai, India

Residual tooth system before immediate restoration

Temporary immediate restoration

Osseointegration check after 3 months

BioHPP® bridge with visio.lign veneer

Axially screwed bridge on angled implants

Hygienic overlaying of the veneers

When performing restoration using extended bridges on a reduced number of implants, achieving a tension-free fit for the suprastructure can pose a major challenge for dental technicians[4]. However, the physiological mobility of the mandibular superstructure or the palate may also lead to discomfort and sensations of tension when too rigid a framework material is used. As tooth loss often arises in conjunction with or as a result of functional impairments, it is important to take these into account during dental technical production of the new dentures[5]. In the case of jaws having already undergone treatment with ceramic veneering in particular, shock absorption through an elastic material is advisable in order to prevent chipping of the veneer[6]. Using a physiological material can reduce the kinds of technical complications commonly associated with conventional dentures[7].

[4] *Katsoulis J, Mericske-Stern R, Enkling N, Katsoulis K, Blatz MB. In vitro precision of fit of computer-aided designed and computer-aided manufactured titanium screw-retained fixed dental prostheses before and after ceramic veneering. Clin Oral Implants Res 2015;26:44-49.*

[5] *Davies SJ. Occlusal considerations in implantology: good occlusal practice in implantology. Dent Update 2010;37:610-612, 615-616, 619-620.*

[6] *Molnar P. Extramasticatory dental wear reflecting habitual behavior and health in past populations. Clin Oral Investig 2011;15:681-689.*

[7] *Manfredini D, Poggio CE, Lobbezoo F. Is bruxism a risk factor for dental implants? A systematic review of the literature. Clin Implant Dent Relat Res 2014;16:460-469.*

Images: Prim. Dr. Rudolf Fürhauser, Prof. Dr. Georg Mailath-Pokorny, Academy of Vienna
Dental laboratory Szlameczka & Prandtner GesmbH, Vienna

The bredent group is there to support you

Treatment, training and services from a single source

Why not accompany experienced users.
In our expert clinic, you can experience clinical and prosthetic interventions for yourself. Your visit is individually tailored to your needs, and will provide you with an insight into the clinical, dental technical and commercial procedures.

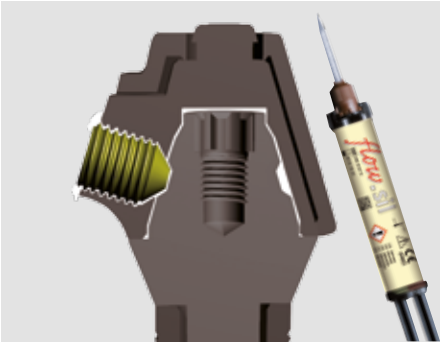
We come to you!
We carry out the surgical intervention together with you, and subsequently support the dental technician in producing the temporary restoration.
Our system advisers provide support in producing the final restoration.

Use our practice-oriented training programme for all indications and therapies. Learn all you need to know about possible approaches and patient marketing. Benefit from applied expertise acquired through professional practice.

Do you regularly carry out treatments? We are here to support you and inform you about improvements. Your success is important to us! The all-round care-free package from the bredent group is your opportunity to increase your business' success, and is unique in the world of dentistry.

Smart solutions

Smart solutions for and from SKYonics



flow.sil – microgap sealing

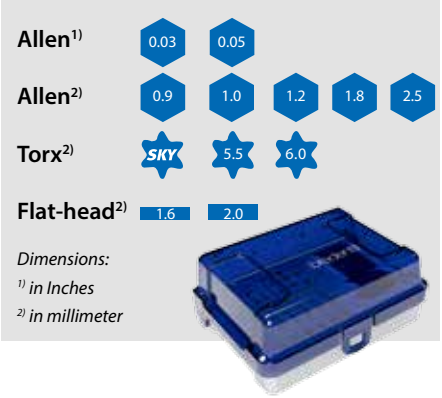
flow.sil seals the gap between abutment and prosthesis. It has antimicrobial properties, and prevents/reduces bacterial colonisation and odour formation.

Full range bonding kit

The full range bonding kit is the clean adhesive solution for all prosthetic materials. Applying the FGP isolation coating to the parts on which adhesive is to be used ensures simple and safe cleaning, rendering infections as a result of residual adhesive a thing of the past.

SKY® fast & fixed bridge kit

The SKY® fast & fixed bridge kit is an all-in-one kit for producing and customising temporary bridges for mandible and maxilla. This handy set contains everything you need for producing stable and aesthetic therapeutic long-term temporary devices.



Full range driver kit

The new screwdriver kit for all conventional implant systems. The most important tools for laboratory and practice in a compact tray. Save a huge amount of space with the handy new design. Easy to clean and including secure compartments for screwdrivers, ratchets and adapters.

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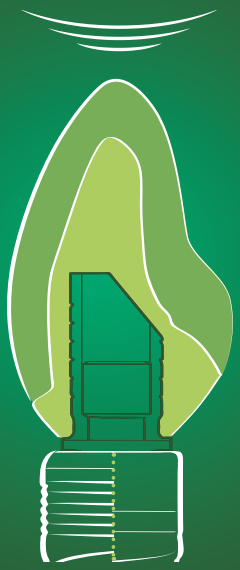

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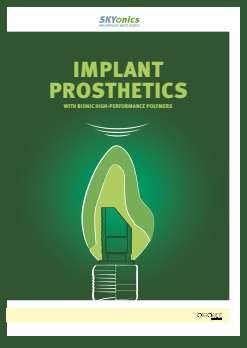

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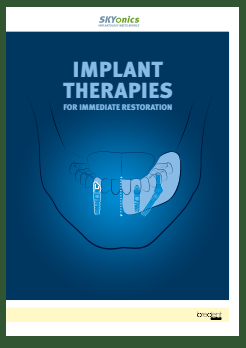

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