Naturally biocompatible

Ensuring practice workflow

Aesthetics in perfection!

Fulfill your patients' wishes for aesthetic restorations and eliminate the unfavorable properties of metals! whiteSKY which is exclusively made from "brezirkon" is fully biocompatible and also perfectly suited for particularly sensitive patients.

Advantages for the patient:

- Utmost biocompatibility
- Very easy to clean
- Natural tooth shade
- Ideal for allergy patients

Dr. Jörg Neugebauer,
University of Cologne/Germany

During our studies1), we have detected that zirconium implants perform just like titanium implants, which means the same safety precautions should be taken as a basis. For that reason, we insert one-stage implants in the same way as immediate load implants.

- Very precise preoperative planing
- Sufficient amount of bone
- Two-step augmentative method, if necessary
- Primary stability of 30 to 45 Ncm

We pay particular attention to temporaries and proceed as follows:

- Large contact areas to the adjoining teeth
- No occlusal contact, not even under load
- Blocking with adjoining teeth through acid etching technique
- Tight recall during the first 6 weeks to check blocking

1) Neugebauer J, Weinlaender M, Lecovic V, Buzug T, Vizethum F, Zöller JE. Immediate loading of ceramic implants with various surfaces and designs Poster 179 Proceedings of the Annual Meeting of the Academy of Osseointegration AO'07, San Antonio, TX, March 8-10, 2007

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Sizes of whiteSKY

Ø	Length	REF
3.5 mm	10 mm	SKY3510C
	12 mm	SKY3512C
	14 mm	SKY3514C
	16 mm	SKY3516C

Ø	Length	REF
4 mm	8 mm	SKY4008C
	10 mm	SKY4010C
	12 mm	SKY4012C
	14 mm	SKY4014C
	16 mm	SKY4016C

Ø	Length	REF
4.5 mm	8 mm	SKY4508C
	10 mm	SKY4510C
	12 mm	SKY4512C
	14 mm	SKY4514C

OP-Tray

REF SKYX0T21

Set for grinding zirconium whiteSKY

REF 580 E006 C

whiteSKY
Prosthetic cap
Ø 3.5 mm and 4.0 mm
REF SKYCPK40
Ø 4.5 mm
REF SKYCPK45

whiteSKY
Impression cap
Ø 3.5 mm and 4.0 mm
REF SKYCA40L
Ø 4.5 mm
REF SKYCA45L

whiteSKY
Implant analogue
Ø 3.5 mm and 4.0 mm
REF SKYCIA40
Ø 4.5 mm
REF SKYCIA45

We thank our reference dentists Dr. Igor Borrmann, Dr. Jörg Neugebauer and Dr. Bernd Siewert for their assistance in creating this leaflet.

08/11 168 GB 2 Subject to changes

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white SKY
IMPLANT SYSTEM

white SKY

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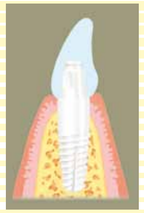
whiteSKY: Natural Beauty

Your patients‘ demands on the esthetic appearance of prosthetic restorations are growing. The new tooth-colored whiteSKY zirconium dioxide implant made by bredent medical meets your patients‘ high demands on esthetics. No dark shades will affect the beauty of the restoration. Perfect results will be achieved even in cases of low gingiva height. Lasting satisfaction of your patients with whiteSKY implants is ensured and your patients will recommend you - there is no bigger compliment patients can pay!
A growing number of patients have developed allergies to metals; the whiteSKY zirconium implant represents a reliable alternative for this group of patients. The absence of metals protects your patients against undesired negative reactions.



whiteSKY:
The innovative zirconium implant

- High primary stability thanks to bone condensation
- Optimal adaptation of soft tissue
- One-piece implant – only a single surgery required

Three times as stable as titanium

The stability of unground brezirkon is 3 times higher than that of titanium and twice that of aluminum oxide, and the breaking resistance is even increased by industrial grinding.
Grinding the implant within the mouth reduces the stability just marginally, so that long-term success is guaranteed.

Ideal elasticity

At the same time, brezirkon features excellent elastic properties, which means it is less brittle than aluminum oxide and therefore less inclined to break, and it is more stable than titanium and therefore less deformable.

Long-term fracture stability

In addition, brezirkon facilitates a kind of built-in defect blocker. This means that micro fractures are stabilized through phase transformation from tetragonal to monoclinic, which prevents the fracture's progressive movement.

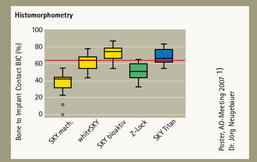
In summary it can be said that zirconium is an ideal implant material.

Physical properties of brezirkon	
Flexural strength	1250 MPa +/- 120 MPa
Modulus of elasticity	200 GPa
Fracture toughness	6-8 MPa/m

Radiation properties	
α-radiation	0.131- 0,0004 mBq/cm^2
β-radiation	<0.32 Bq/g
γ-radiation	not detectable

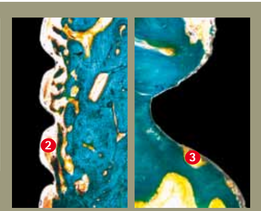
brezirkon features a very low radiation level so that any risk to the health of patients is excluded.

Scientifically confirmed

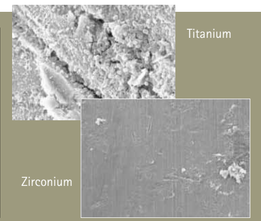


Osseointegration of zirconium and titanium surface

A study conducted with dogs and carried out by the Universities of Cologne/ Germany and Belgrade/Serbia showed that the bone-implant contact of the sandblasted whiteSKY zirconium implants is at the same level as that of sandblasted SKY titanium implants. On the other hand, the level was significantly above that of turned titanium implants without surface treatment and of a competitor's zirconium implant.



A study conducted with minipigs and carried out at the University of Dresden/ Germany shows excellent results regarding osseointegration of whiteSKY zirconium implants. The newly formed bone (2) is clearly recognizable, as are the osteoblasts (3) adsorbed directly to the surface.



Long-term success through lesser plaque adsorption[1)]

A study conducted by Scarano et. al. shows very clearly that the plaque adsorption to zirconium surfaces is significantly lower than it is to titanium surfaces under the same conditions. From this we can deduce that the periimplantitis risk is additionally reduced by the lower number of possible pathogenic germs in the biofilm.

1) Literature: Scarano A, Piattelli M, Caputi S, Favero GA, Piattelli A. Bacterial adhesion on CP titanium and zirconium oxide disks: An in vivo human study. J Periodontol February 2004; Vol. 75, No. 2, 274-280

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Pictures: Dr. Igor Borrmann

Dr. Igor Borrmann, Kornwestheim

Unfortunately, the patient returned only sporadically for check ups and prophylaxis appointments, which surely was not beneficial for his state of oral hygiene. Nevertheless, two years following prosthetic rehabilitation, the situation is very satisfying in regard of red and white esthetics. It is clearly visible that the papillae have nicely reestablished.

Dr. Bernd Siewert, Madrid

If an implant is not supplied with a temporary, the impression can be taken only once the gingiva is removed with an Eletrotom. Work is conducted very easily with the new prosthetic caps here, because they make precisely fitting foundations for the temporaries. Impression and model are made with the new prefabricated impression caps and laboratory analogues; these work for circularly ground whiteSKY implants as simply and precisely as for two-piece implant systems.

The new prosthetic parts fort whiteSKY implants make your work significantly easier:

- **whiteSKY Prosthetic Cap**
  serves as base for temporaries and prevents the implant abutment from getting grown over by very tight gingival tissue.
- **whiteSKY Impression Cap and Implant analogue**
  simplify impressions and increase precision, because they are optimally coordinated to the implant. They may be used for original as well as individualised abutment.