bond.lign

bonding system

DTK adhesive

secure natural beauty

NEW COLOUR

All colours with integrated fluorescent pigments.

powered by
visio.lign

DTK adhesive
safe – sterilisable – strong

Stability

DTK adhesive is a dual-curing adhesive that is either light-curing or self-curing. When cured without light, full bonding strength is achieved even at room temperature. The two-component paste consists of a base of methacrylates, inorganic fillers and initiators and is an amine and peroxide-free system. DTK adhesive impresses with its very low water absorption and colour stability. Thanks to its balanced elasticity/extension and low shrinkage, DTK adhesive ensures longevity and stability, particularly of ceramic restorations on implants.

Flexibility

DTK adhesive is available as both a transparent and an opaque dentin-coloured variant and is stable for 2 years at room temperature. It offers maximum flexibility as it can be used intraorally and extraorally. As a result, clinically safe bond strengths are achieved on titanium and zirconium oxide even after conditioning with 50 µm corundum jets and 1 bar pressure!

Certainty

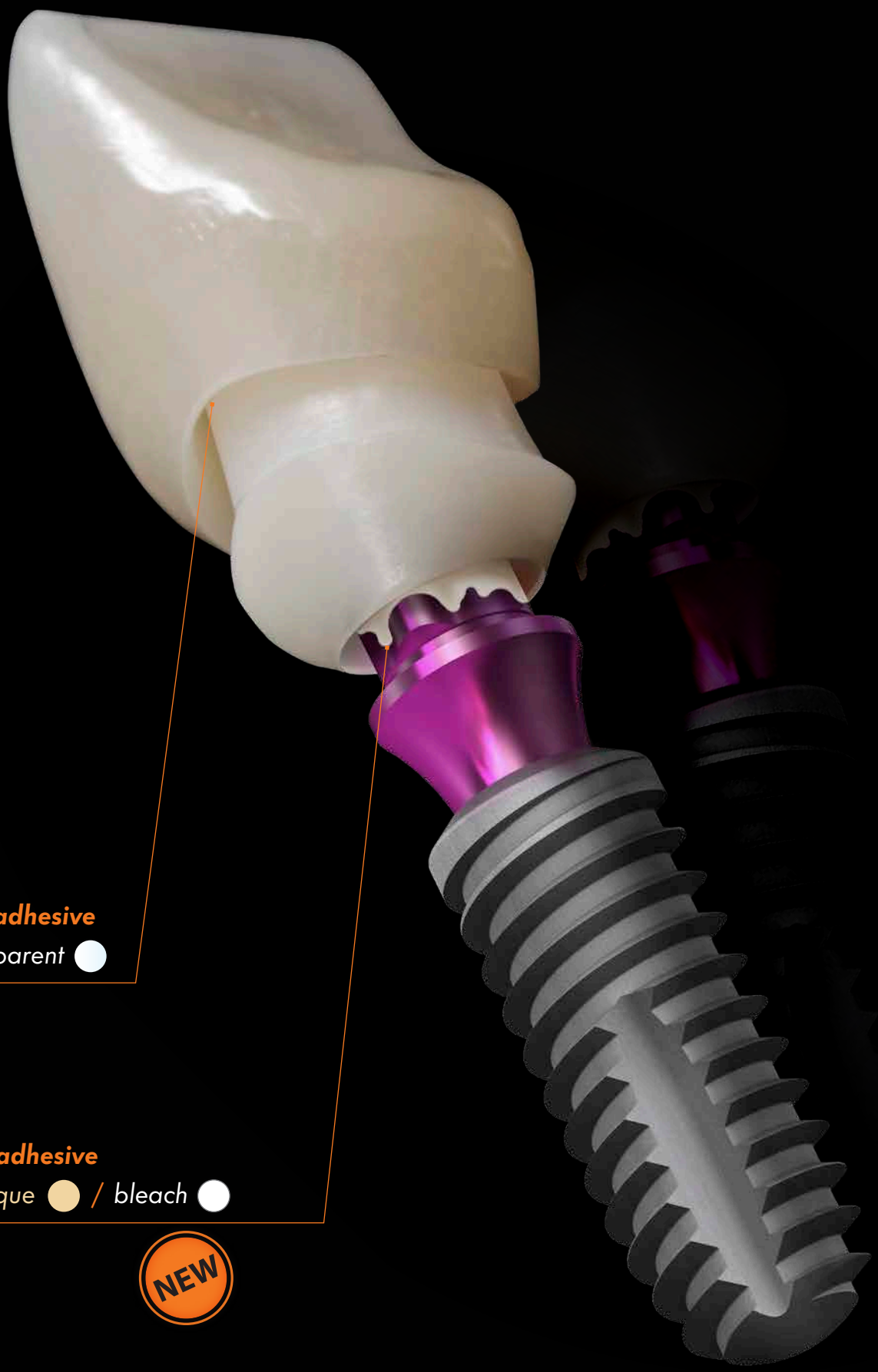
DTK adhesive enables a durable and secure adhesive bond between all prosthetic materials. Individual abutments and prosthetic restorations (material combinations: ZrO_2/ZrO_2, ZrO_2/Ti, Ti /Ti, Ti/NEM, Ti/lithium disilicate ceramic, BioHPP/ZrO_2, BioHPP/Ti, composite/Ti) can be bonded in conjunction with the corresponding primer. For titanium, non-precious alloys and zirconium dioxide, MKZ primer is used as a bonding agent, for BioHPP and Composite visio.link and for Li-(Di) silicate ceramics, K primer is used.

Excess DTK adhesive is very easy to blast off after polishing.
DTK adhesive is also very easy to polish as it is not filled with sharp-edged glass. This means there is no roughness leading to gum irritation and deposits. DTK adhesive has been clinically proven for over 10 years in this application (bonding of hybrid abutments) and in the laboratory for over 25 years for the bonding of metal-to-metal structures. For the post-processing of the adhesive joint and the abutment surface, we recommend Fibro+ to enable optimal soft tissue attachment.

Sterilisation & strength

Abutments bonded with DTK adhesive can be sterilised in an autoclave at 138 °C. Thanks to its sterilizability, contamination is avoided and maximum hygiene is possible. An abutment bonded with DTK adhesive exhibits even higher tensile strength and higher bond values after its sterilisation than before its sterilisation. Sterilisation is therefore highly recommended. See the University of Kiel study on page 4/5.

Images are not to scale.


DTK adhesive
transparent
DTK adhesive
Opaque / bleach
NEW

Clinically proven
by the Universities of Jena and Kiel

Sterilisation increases the tensile strength of zirconium hybrid abutments

A clinical study by the University of Kiel* showed that a zirconia abutment bonded with DTK adhesive had (significantly) higher bond values after its sterilisation. Sterilisation of titanium/zirconia abutments in an autoclave not only has a positive impact on hygiene and thus reduces the inflammation potential of periimplant tissue, sterilisation of a zirconia hybrid abutment bonded with DTK adhesive also results in a higher tensile strength and higher composite values. Sterilisation is therefore highly recommended.

The laboratory study at the University of Kiel also showed that the sterilisation of zirconia hybrid abutments (bonded with DTK adhesive) has a positive effect on tensile strength, regardless of whether temperature load changes were performed afterwards or not. The study also shows that very good clinical bond values are achieved by conditioning using either 50 µm or 100 µm corundum blasting at a pressure of 1 or 2 bar.

In vitro study

Image*: Components of the zirconium oxide hybrid abutment with implant analogue

Image*: Test setup – tensile strength test (crosshead speed of 2 mm/min)

Advantages of sterilisation of zirconium hybrid abutments bonded with DTK adhesive

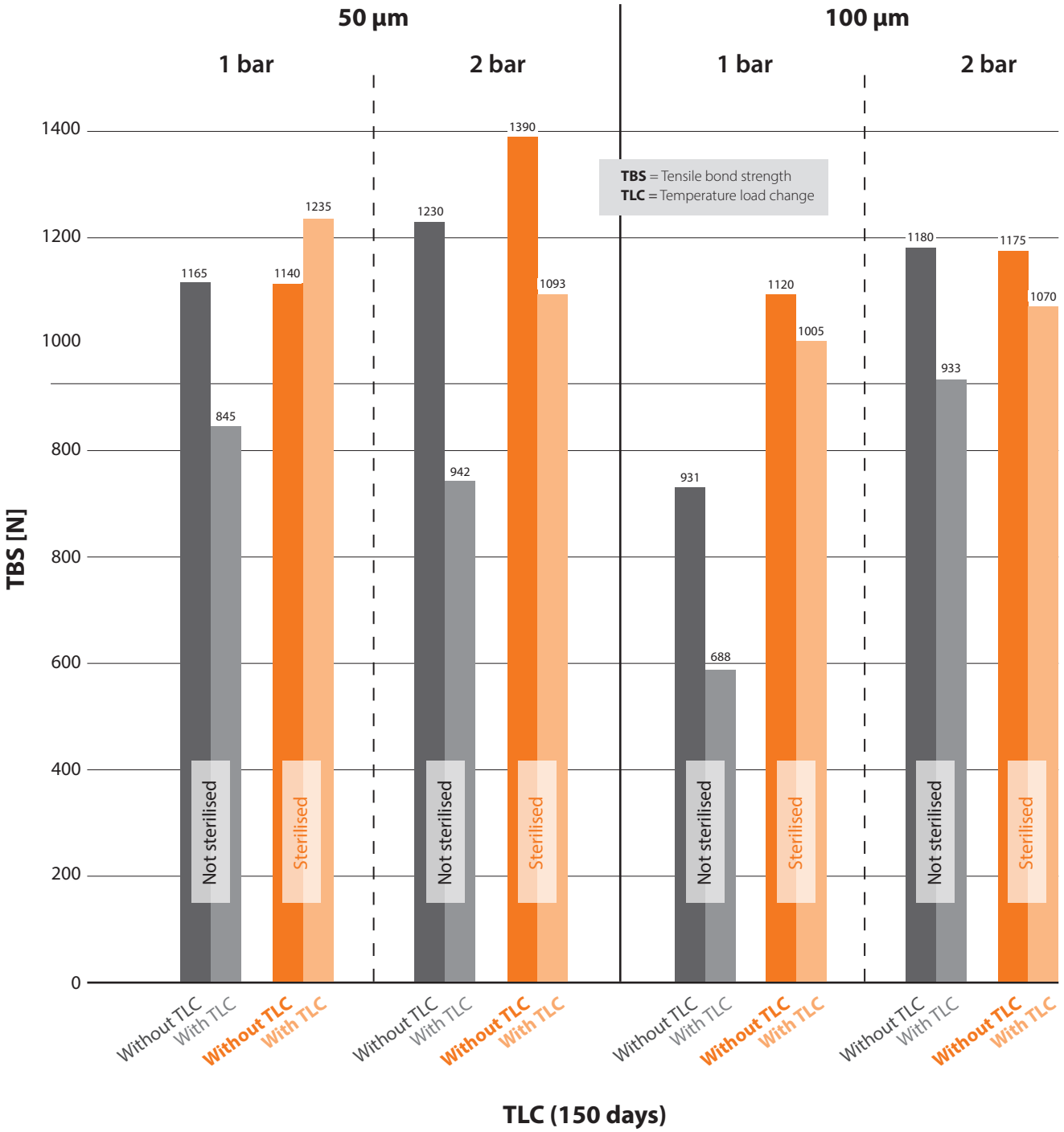
1st Hygiene:
Reduces the inflammation potential of periimplant tissue and thus increases the implant's healing chances
→ According to the study by Canullo et. al**, the use of sterilised individual abutments is recommended, as the study showed that the argon plasma treatment of implant abutments leads to significantly lower marginal bone loss after an follow-up period of 2 years.

→ Safety, less risk of bone or implant loss

2nd Safety:
Higher tensile strength and higher bond values between the prosthetic materials.

Images are not to scale.

Tensile strength



Source references:

* Dr. Nalah Alghanaim, Prof. Dr. Matthias Kern, Dr. Christine Yazigi, Dr. M. Sad Chaar: "Effects of sterilisation, conditioning, and thermal ageing on the retention of zirconia hybrid abutments: A laboratory study", a laboratory study at the Christian-Albrecht University of Kiel, Clinic for Dental Prosthetics, Propaedeutics and Materials Science, dated 29 April 2024

** Canullo L, Penarrocha D, Micarelli C. Hard tissue response to argon plasma cleaning/sterilisation of customised titanium abutments versus 5-second steam cleaning: results of a 2-year post-loading follow-up from an explanatory randomised controlled trial in periodontally healthy patients. Eur J Oral Implantol 2013; 6:251-260.

All colours with integrated

For a natural appearance of the restoration that alre

Assortments

REF 54001185

DTK adhesive assortment
(5 parts)

transparent

Mixing cannulas
1 x10

Double-mix cartridge
DTK adhesive transparent, 8 g
1 x

Syringe plunger
1 x

Disposable brush
1 x 10

Brush holder
1 x

REF 54001285

DTK adhesive assortment
(5 parts)

opaque

Mixing cannulas
1 x10

Double-mix cartridge
DTK adhesive opaque, 8 g
1 x

Syringe plunger
1 x

Disposable brush
1 x 10

Brush holder
1 x

REF 54001485

DTK adhesive assortment
(5 parts)

bleach

Mixing cannulas
1 x10

Double-mix cartridge
DTK adhesive bleach, 8 g
1 x

Syringe plunger
1 x

Disposable brush
1 x 10

Pinselhalter
1 x

Images are not to scale.

fluorescent pigments.

ady works from within.

Refill packs

REF 54001195 DTK adhesive 8 g

transparent

REF 54001295 DTK adhesive opaque, 8 g

opaque

REF 54001495 DTK adhesive bleach, 8 g

bleach

Post-processing

REF 53001018 Fibro+ set (3 parts)

We recommend Fibro+ (grain: 0.35 µm)
for removing adhesive residues.

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The Aesthetic and Functional System

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