novo.lign

veneers

veneer natural beauty

powered by
visio.lign

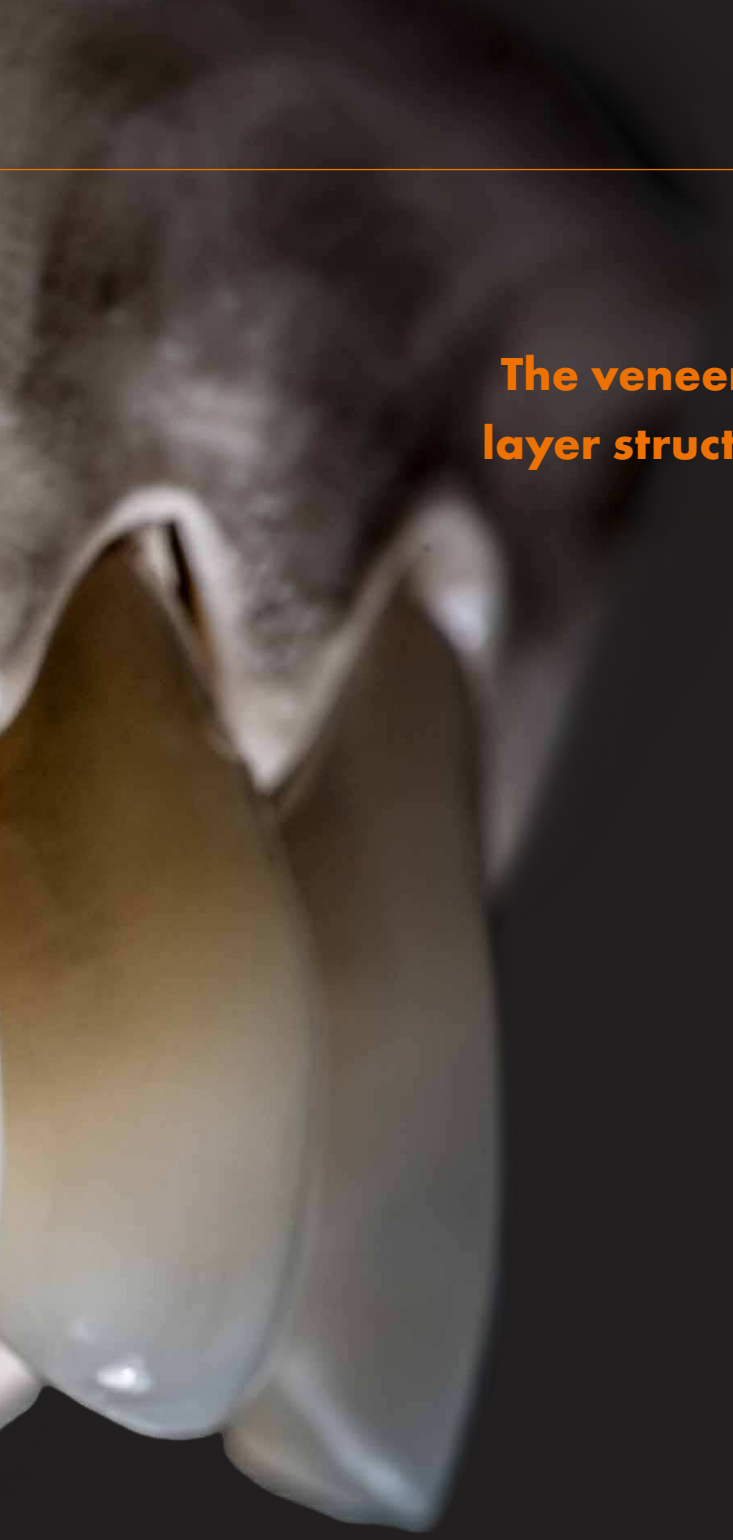
novo.lign

visio.lign

The aesthetic and functional system impresses with the unique freedom it offers to create natural beauty, function and physiology. The open system ensures flexibility and freedom, thanks to 6 compatible components: crea.lign veneering composite, novo.lign veneers, neo.lign denture teeth, visio.CAM composite blanks, visio.paint stains & bond.lign primer/bonder. It provides suitable tools for every workflow and ideal preconditions for perfect implant-prosthetic solutions. visio.lign is the system for stability and reliability. The result: durable, colour-stable prosthetic restorations with a superior load capacity.

ght Design

The perfect combination of light and design in nature's image.



novo.lign –

The veneer with a morphological layer structure for natural beauty

The novo.lign veneers consist of high impact polymer composite filled with microceramic, and can be used for the permanent veneering of metal, ceramic and polymer frameworks.

They are moulded from real rows of teeth and, therefore, give a perfect natural look. The morphological layer structure also ensures the veneer has a natural depth.

Thanks to its exceptional mechanical properties, such as its high flexural strength (140 MPa) and low modulus of elasticity (approx. 3,000 MPa), the physiological veneers have a shock-absorbing effect and are, therefore, perfect for implant prosthetics. The homogeneous and sealed surface ensures long-term colour stability and plaque resistance. Because they have the same shades and shapes, they can be seamlessly combined with neo.lign denture teeth.

AESTHETIC FITTING

From aesthetic fitting to the finished piece: with novo.lign veneers, you work with the final material right from the start. In line with the motto "What you see is what you get", the patient can see the result in situ in advance - at the aesthetic fitting.

Make the most of the advantages of novo.lign veneers

1. Natural beauty

- Natural design, because every novo.lign veneer is moulded from real rows of teeth
- Natural depth effect thanks to the morphological layer structure
- Same shades and shapes as the neo.lign denture teeth
- Homogeneous and sealed surface ensures long-term colour stability and plaque resistance

2. Simple handling

- Extended neck enabling individual setting of tooth length
- Can be thermoformed, and therefore adapted to any situation
- novo.lign veneers can be seamlessly combined with neo.lign denture teeth, and are therefore perfect for the combination technique and for implant prosthetics (same shades and shape)
- Can be individualised with crea.lign veneering composite

3. Reliability

Veneer with a high load-bearing capacity

- **Highly stable bond**:
  The best bonds between novo.lign veneers and framework materials are achieved using the bond.lign primer/bonder (see the Voss shear test conducted by the University of Jena on page 12/13 of this brochure).
- **High-strength, fracture-proof & abrasion-resistant**:
  Thanks to its high impact polymer structure and high flexural strength of approx. 140 MPa, the novo.lign veneers are very strong and fracture-proof.
  The ceramic filler structure also increases its resistance to abrasion.
- **No spalling or cracks** thanks to the similar modulus of elasticity of the interacting novo.lign, BioHPP, combo.lign and crea.lign products.
- **Proven system**: More than 10 million veneers inserted

4. Physiology

- **Perfect for implant prosthetics**
  novo.lign's low modulus of elasticity (approx. 3,000 MPa) ensures that the implant has a shock-absorbing effect.
  The interaction of the similar moduli of elasticity of BioHPP (approx. 4,500 - 5,000 MPa), novo.lign (approx. 3,000 MPa), combo.lign (9,000 MPa) and crea.lign (5,000 MPa) also support the implant's shock absorbing effect and make the whole restoration high physiological.
- **Natural feel in the mouth**
  thanks to the neutral flavour and neutral behaviour in contact with cold and hot food. No chattering of teeth. Does not feel like a foreign object in the mouth.
- **Biocompatible**
  Barely any residual monomer as the veneer is completely polymerised at 250 bar and 120 °C.
- **Protection of antagonists,**
  as no dental glass is used in the material.

Choose from nature's full **novo.lign**

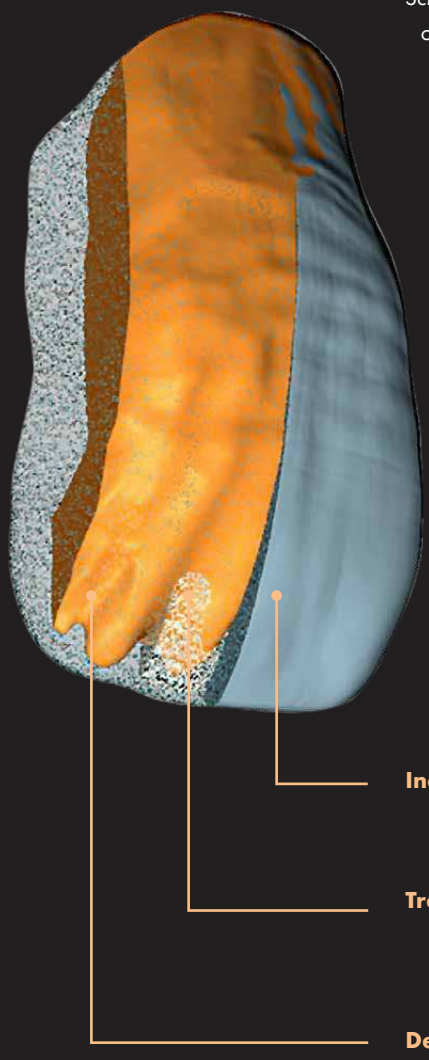
Natural shape and layer structure:

- The design, colour and light effect, and the surface texture have been taken from natural teeth.
- High translucency thanks to the additional transparent layer between the incisal and the dentine layer
- Natural opalescence thanks to the ceramic filler
- Optimal paint coverage even in tight spaces thanks to special colour pigments in the dentine layer. These pigments are activated by the combination of novo.lign and the corresponding colour of the combo.lign bonding composite and the crea.lign opaquer.
- The veneers are coordinated with one another (in terms of texture, angle & natural asymmetry)
- Every design is an individual model (not artificially produced, not scaled, not pre-fabricated in the classic way)

The designs of the novo.lign veneers are inspired by and moulded from natural teeth **Front teeth**: The front teeth designs have been moulded from natural front teeth and perfected using CAM techniques. Very small imperfections have been deliberately kept. **Posterior teeth**: Different occlusion designs have been created for the posterior teeth so they are suitable for the different arrangement concepts.

LAYERING DIAGRAM

3-layer design with a total thickness of 1 mm



Schematic diagram of the material layers using the example of a D49 anterior tooth mould

range!
veneers

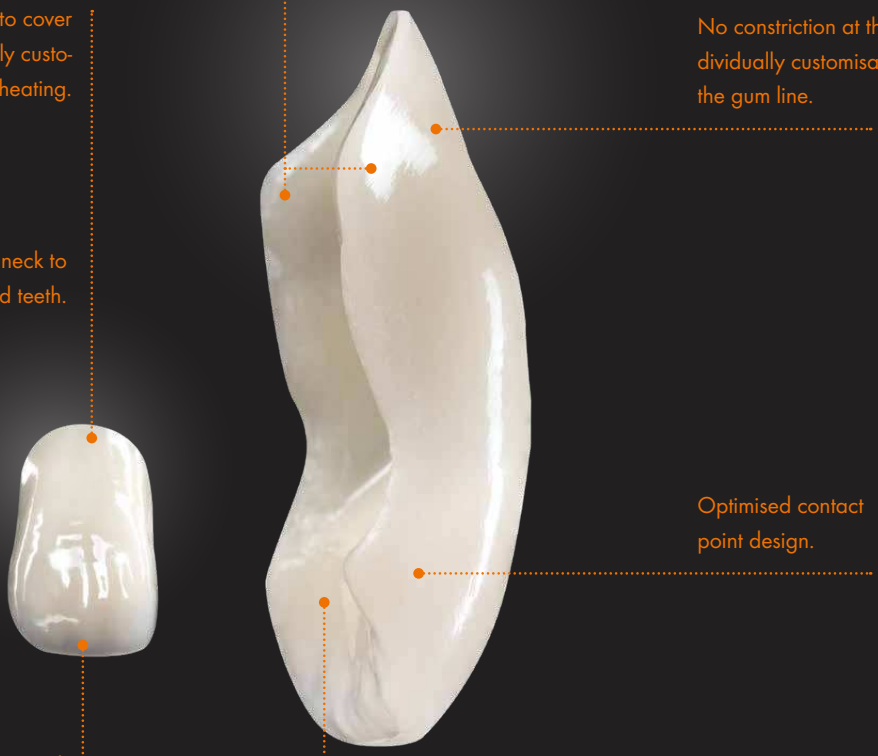
FEATURES

Special wing for closing the interdental space, preventing black holes and dirt recesses.

Wider tooth neck to cover wide crowns. Individually customisable by heating.

No constriction at the neck,individually customisable around the gum line.

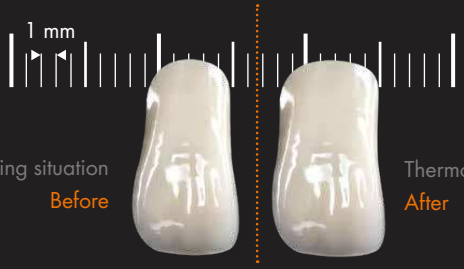
Longer tooth neck to cover elongated teeth.



Optimised contact point design.

Natural mamelon structure and layering, yet only 1 mm thick.

Deep-set incisal edge for optimal transition to the supplementary material.



Starting situation
Before

Thermoplastically formed
After

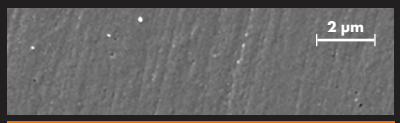
THERMOPLASTICALLY FORMABLE

We recommend using the Thermo-Pen to ensure the right temperature is used: it provides a flameless supply of hot air using piezo technology (→ page 29).

Colour stability and plaque resistance

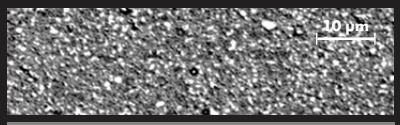
novo.lign – the homogeneous surface makes the difference

The use of opalescent microceramic particles as a filler (no dental glass) in **novo.lign** (veneers), **neo.lign** (denture teeth) and **crea.lign** (composite) creates a homogeneous, sealed surface, ensuring long-term colour stability and plaque resistance: **Surface roughness Ra < 0.03 µm**

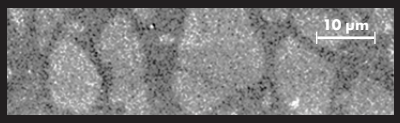


crea.lign

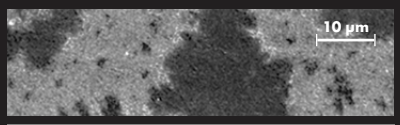
Composite



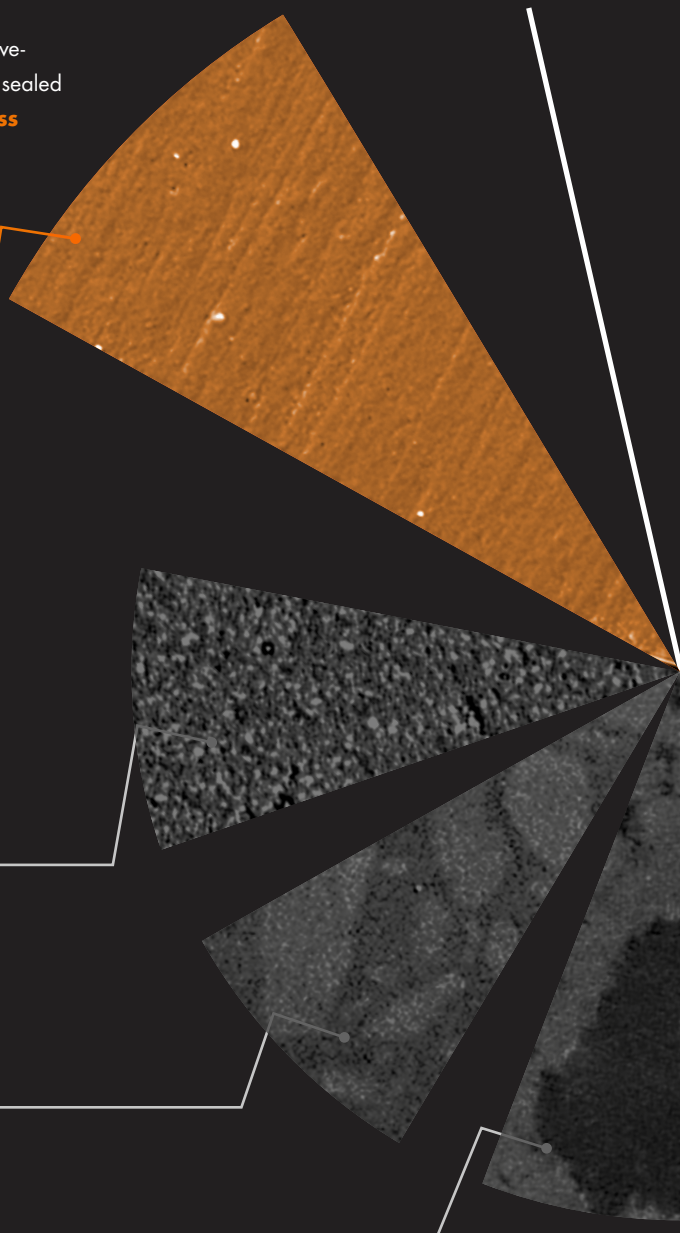
Sinfony™



SR Adoro® (SR Nexco®)



VITA**VM®LC**



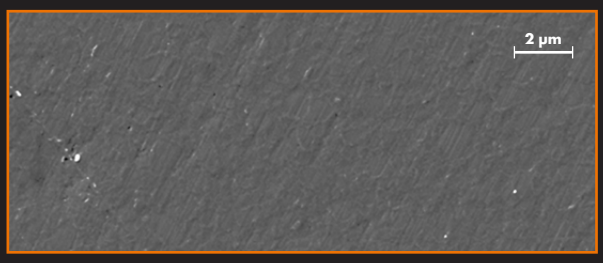
"Staining susceptibility Δ E" images and graphics come from the "Results of materials-science testing of different veneering resins [...]",

© Research report dated 07 May 2012 by A. Rzanny and R. Göbel, Jena University Hospital, Germany

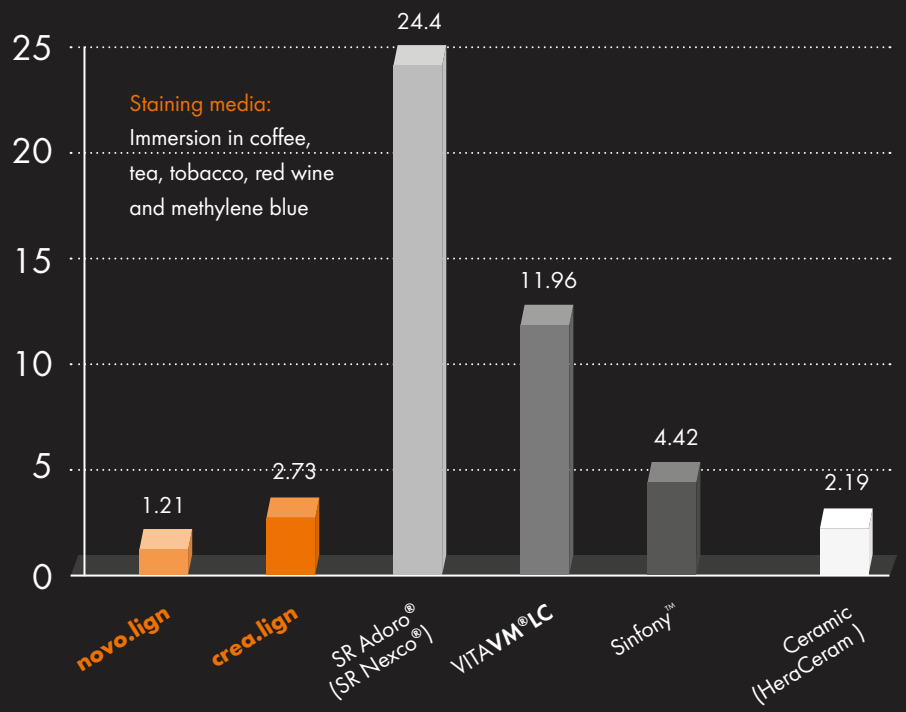
novo.lign

HIPC veneers

High
Impact
Polymer
Composite



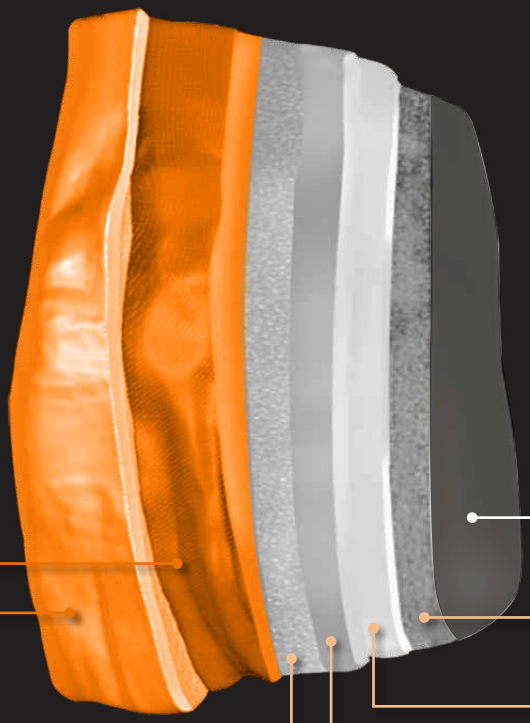
Staining susceptibility [Δ E]



LAYERING DIAGRAM
Bonding system

novo.lign
veneers

bond.lign
primer/bonder



novo.lign – layers

Dentine

Enamel and transparent

Framework material

bond.lign (primer/bonder)

crea.lign opaquer

combo.lign bonding composite

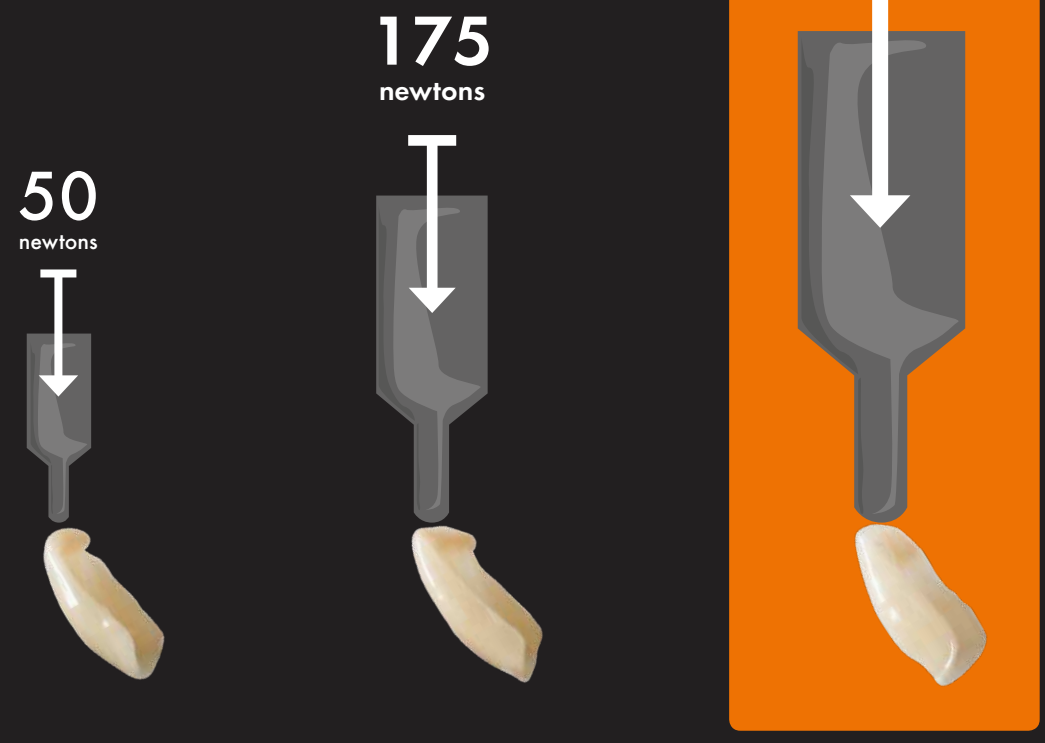
visio.link

Reliable bonding

The bonding system, consisting of the primer, bonder, opaquer and bonding composite, has been developed for the novo.lign veneers and has been specially coordinated with them. A primer/bonder from the bond.lign line can be used to produce a permanent, secure chemical adhesive bond between novo.lign and all common framework materials.

Stable bond:
novo.lign + bond.lign bonding system:

Compression-shear testing by Jena University Hospital (Germany) has proved that the system consisting of a novo.lign veneer and the corresponding bond.lign bonding system withstood the highest loads. In this study, novo.lign performed better than competing products.



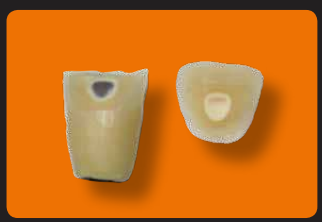
artVeneer®

Merz® Dental GmbH

PalaVeneer®

Kulzer® GmbH

novo.lign



bredent GmbH & Co. KG

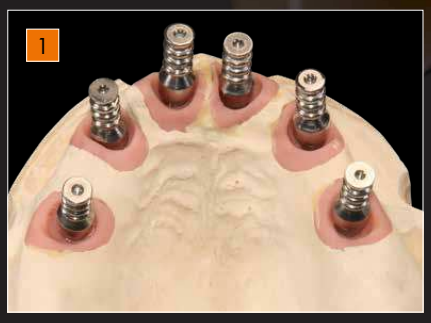
Images and values for the compression-shear test/Voss shear test: © 2017, "Das Verbundsystem als wesentlicher Faktor für die Haltbarkeit von PMMA-Verblendschalen an edelmetall-freien Legierungen" [The bonding system as an essential factor for the durability of PMMA veneers on non-precious metal alloys]: Roland Göbel, Angelika Rzanny, Harald Küpper; University of Jena/Germany. Quintessenz Zahntech 2017;43 (7):936-941

The article, which was published in Quintessenz Zahntechnik, is available as a reprint from bredent GmbH & Co. KG.
German: REF 009933OD
English: REF 009933GB

Long-term temporary restorati

Temporary fixed or permanent re

novo.lign – veneers
&
top.lign professional – tooth-coloured cold-curing resin



Production of models with gingival mask (Multisil Mask) and super-hard class 4 gypsum (Exakto-Rock S).

Unscrewing of the prosthetic copings; it may be necessary to shorten the prosthetic copings. Wax-up with novo.lign veneers and set-up wax. The matrix is then created with Haptosil D & visio.sil fix.

Prepare the novo.lign veneers:
- Sandblast with aluminium oxide (110 µm, 2-3 bar)
- Remove dust with oil-free compressed air - not a steam jet! Wet any hard-to-reach areas with top.lign professional liquid.
  No chemical bonding is required.

ons and permanent work

movable

novo.lign

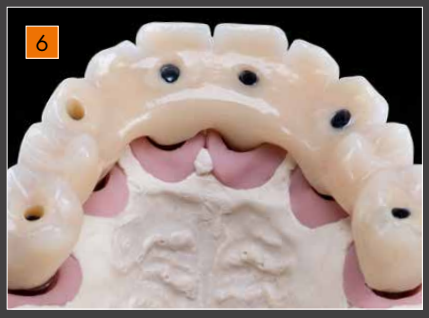
&

top.lign professional

The combination of novo.lign veneers and top.lign professional is the perfect solution for temporary fixed **immediate implant restorations**. The tooth-coloured cold-curing polymer, top.lign professional, is simply added to the veneers in the matrix. The temporary restoration is not just created quickly and easily, it also has a elasticity required in implant prosthetics. The long-term temporary restoration also impresses with its solid aesthetic, plaque resistance and low staining susceptibility. The combination of novo.lign and top.lign professional is also an exceptional solution for permanent removable restorations.

Evenly mix in top.lign professional with a mixing ratio of 10 g to 7 ml and leave to soak for 30 seconds.

Pour top.lign professional into the matrix. The processing time is 3-5 minutes.



Finished temporary restoration, it is then definitively integrated into the patient's mouth.

Permanent restorations
fixed and removable

combo.lign

novo.lign

Light-curing, dual-hardening fixation composite

veneers

crea.lign

veneering composite

Veneer with a high load-bearing capacity

The novo.lign veneers can be fixed to any framework material using the correct primer/bonder from the bond.lign line and the combo.lign bonding composite.
crea.lign veneering composite is then added to the veneer. Thanks to the coordinated moduli of elasticity of novo.lign (approx. 3,000 MPa), combo.lign (approx. 9,000 MPa) and crea.lign (approx. 5,000 MPa), the materials work together perfectly. There is no spalling or cracking thanks to the elasticity of the materials and the high bond strength. The excellent mechanical characteristics increase the veneer's strength and so ensure long-term success.

The veneer can be individualised with the various crea.lign masses.

The matrix (with the novo.lign veneers and combo.lign) is placed on the model and the excess combo.lign is squeezed out.

The veneers are glued to the framework with combo.lign. crea.lign veneer composite is then added.

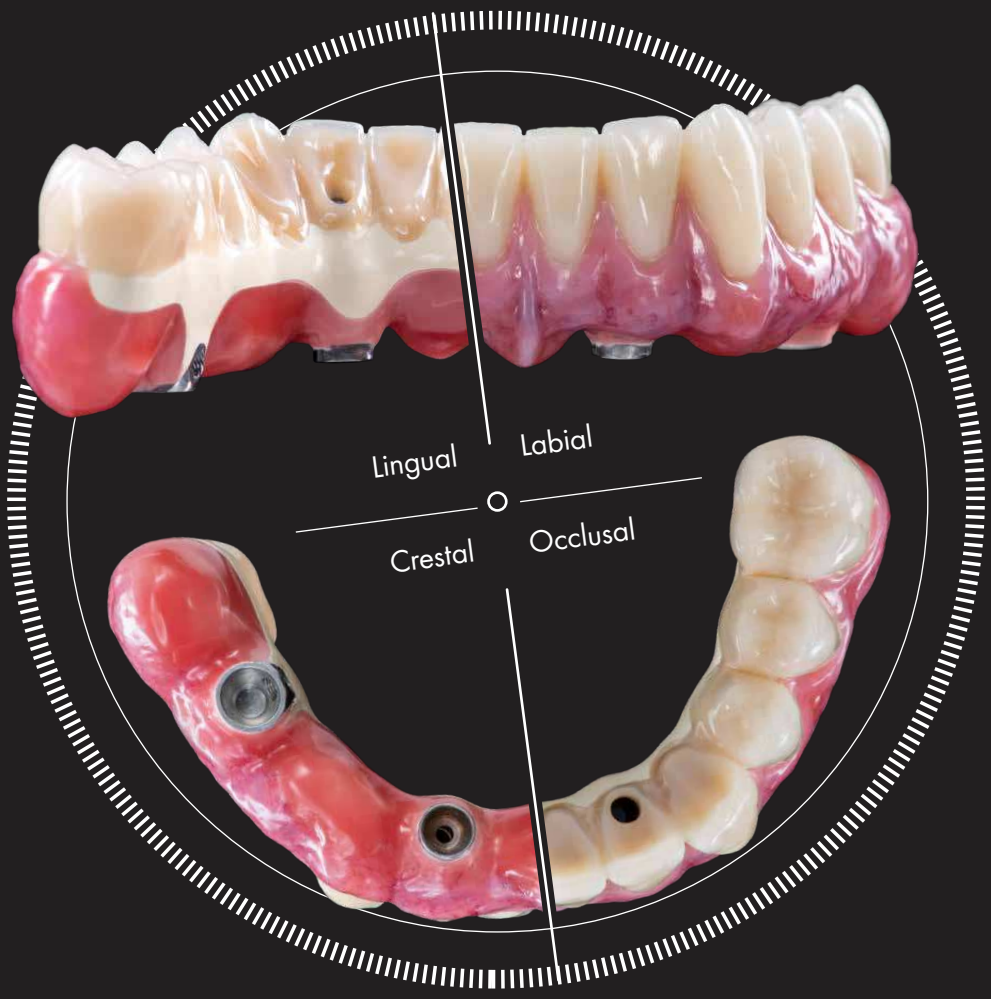
The finished, prepared veneer consists of: novo.lign, bond.lign, combo.lign and crea.lign.

Implant prosthetics

BioHPP - high-performance polymer

The physiological solution

The best mechanical characteristics for a physiological restoration are achieved using the BioHPP high-performance polymer as the framework material. The moduli of elasticity values of BioHPP (approx. 4,500-5,000 MPa), novo.lign (approx. 3,000 MPa), combo.lign (approx. 9,000 MPa) and crea.lign (approx. 5,000 MPa) are perfectly harmonised with each other and create a shock-absorbing effect similar to that of natural teeth. This shock-absorbing effect is a particular advantage for implant prosthetics because it enables the forces acting on the implant to be reduced. Thanks to the high impact polymer structure of novo.lign and its high flexural strength (approx. 140 MPa), a restoration made from BioHPP and novo.lign is not just elastic, it is also strong and fracture-resistant. The restoration's load-bearing capacity is significantly increased, and a long-lasting physiological restoration is ensured.



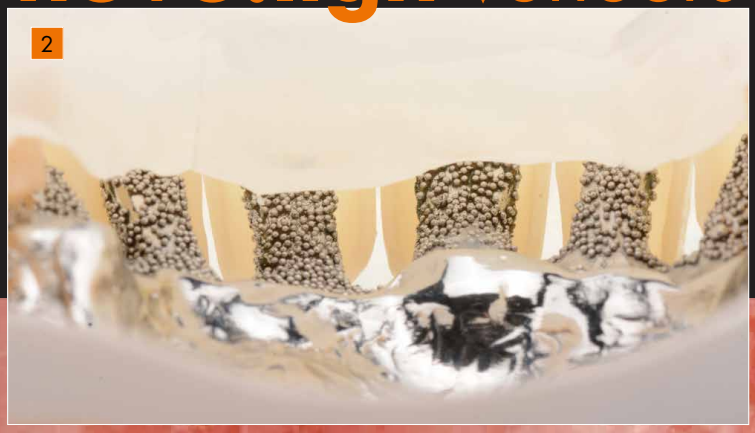
Granulate

Pellets

breCAM.**BioHPP**

Combining novo.lign veneers and

novo.lign veneers (positions 11, 12, 13 & 21, 22 and 23) and neo.lign denture teeth (positions 14, 15, 16 & 24, 25, 26) are placed in the transparent matrix (visio.sil ILT silicone matrix).



novo.lign veneers and neo.lign denture teeth are fixed to the conditioned metal framework using the matrix and cemented with the combo.lign bonding composite. MKZ Primer and visio.link from the bond.lign line ensure an optimal bond between the metal framework and veneers.

Images for the visio.lign combination technique:

neo.lign denture teeth

Occlusal view of the finished work.
It has been finished and customised with crea.lign veneering composite.

Vestibular view of the finished work. To the naked eye, there is no visual difference between the novo.lign veneers and the neo.lign denture teeth.

Combination technique in the system

The novo.lign veneers can be seamlessly combined with the neo.lign denture teeth. novo.lign and neo.lign have the same shade and shape, and are made of the same material, so they are perfectly suited for the combination technique and implant prosthetics. Hard-to-reach spaces, such as the area around the implant position, are no longer a problem. Instead of using a denture tooth, just the corresponding veneer can be used and cemented with the appropriate combo.lign dentine mass. Cumbersome grinding of the denture teeth is no longer necessary.

Can you tell the difference?

Save time.

No open-flame time,
so no sintering loss

The tooth mould is available.
12 upper and 3 lower front teeth moulds as well as 3 upper and lower posterior teeth moulds in different sizes. Further moulds to follow.

Easy to adapt to the shape of the veneer,
because they can be thermoformed (→ Thermo-Pen)

Colour and form stability,
thanks to the predictable results.
In line with the motto "What you see is what you get", you can see the final colours and shapes even during the preparation phase. In contrast to ceramics, the veneers are no longer modified by burning-out in the oven. The patient can also see the result in their mouth in advance during the aesthetic fitting.

High-end aesthetic

thanks to cut-back and customisation with crea.lign veneering composite and visio.paint stains

Aesthetic fitting:
"What you see is what you get"

1 Aesthetic fitting

With novo.lign veneers, you work with the final material right from the start. In line with the motto "What you see is what you get", the patient can see the result in their mouth in advance at the aesthetic fitting. The novo.lign veneers are set-up in wax for this.

2 reproducible aesthetic

After the aesthetic fitting, the veneers are transferred to the permanent restoration. This is when the veneers are fixed to the framework material (in this case to the high performance polymer BioHPP). The unprocessed novo.lign veneers impress with their reproducible aesthetic and are reliable and efficient for the laboratory.

" The aesthetic fitting of
is a vital factor in patient

3 Permanent restoration

The desired treatment result - seen in advance during the aesthetic fitting - has been transferred to the permanent restoration. The silicone key formed from the aesthetic fitting is used for this. The veneers from the aesthetic fitting are also transferred to the permanent restoration.

Images for "aesthetic fitting":

the treatment results
communication. ”

Long-term success

A look back at 10 years of 100% use

2008

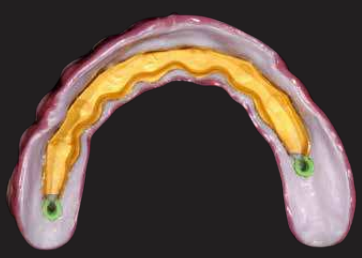
Finished work in the mouth

The patient is 73 years old and a heavy smoker (around 40 cigarettes per day).

He has been treated with a complete upper jaw implant rehabilitation. This involves a zirconium primary bar structure and a superstructure also made of zirconium (electroplating for friction). It was veneered with novo.lign veneers, combo.lign and crea.lign. The veneers have been further customised with crea.lign and visio.paint. In the lower jaw, the patient still has his natural teeth and ceramic crowns on the posterior teeth.

Advantage of using novo.lign:

The novo.lign veneers on the rigid zirconium framework provide the necessary elasticity when chewing, protecting the antagonists in the lower jaw.



2011

3 years later

no "ageing" of the restoration is visible. Due to the patient's heavy smoking, there is a very small accumulation of plaque on the canines of the restoration.

Images for "Long-term success 2008":

10 years later

Despite the rigid zirconium framework, there has been no abrasion of the natural teeth in the lower jaw. Naturally surface abrasion can only be seen on the veneers in the upper jaw. Even the Galvano Gold has changed more between 2008 and 2018 (see picture below) when exposed to nicotine than the novo.lign composite restoration.

2018

Advantage of using novo.lign:

Thanks to their elasticity, the novo.lign veneers have prevented wear of the natural teeth in the lower jaw, and absorbed the shock from the rigid zirconium. There is clearly less plaque and dis-colouration on the novo.lign compared to gold or to the natural teeth.

However, compared to the natural teeth in the lower jaw, it is clear that much more plaque has formed the natural teeth have and that there is much more discolouration. When exposed to nicotine, the novo.lign veneers have been infiltrated much less than the natural teeth.
In terms of colour stability, the novo.lign has behaved as well as ceramic (see the ceramic crowns in the posterior region of the lower jaw).

Images for "Long-term success 2011 & 2018":

Testimonials novo

"The aesthetic fitting enables the patient to see the results in their mouth in advance. I think this is the most important advantage of veneers compared to other veneering materials. The aesthetic fitting helps me and the dentist advise patients, it is therefore a vital factor in our communication with our patients. The novo.lign veneers offer me a reproducible aesthetic. It doesn't matter which member of the laboratory team processes the novo.lign veneers, I always get a top-quality aesthetic result. This gives me certainty and makes my laboratory even more efficient."

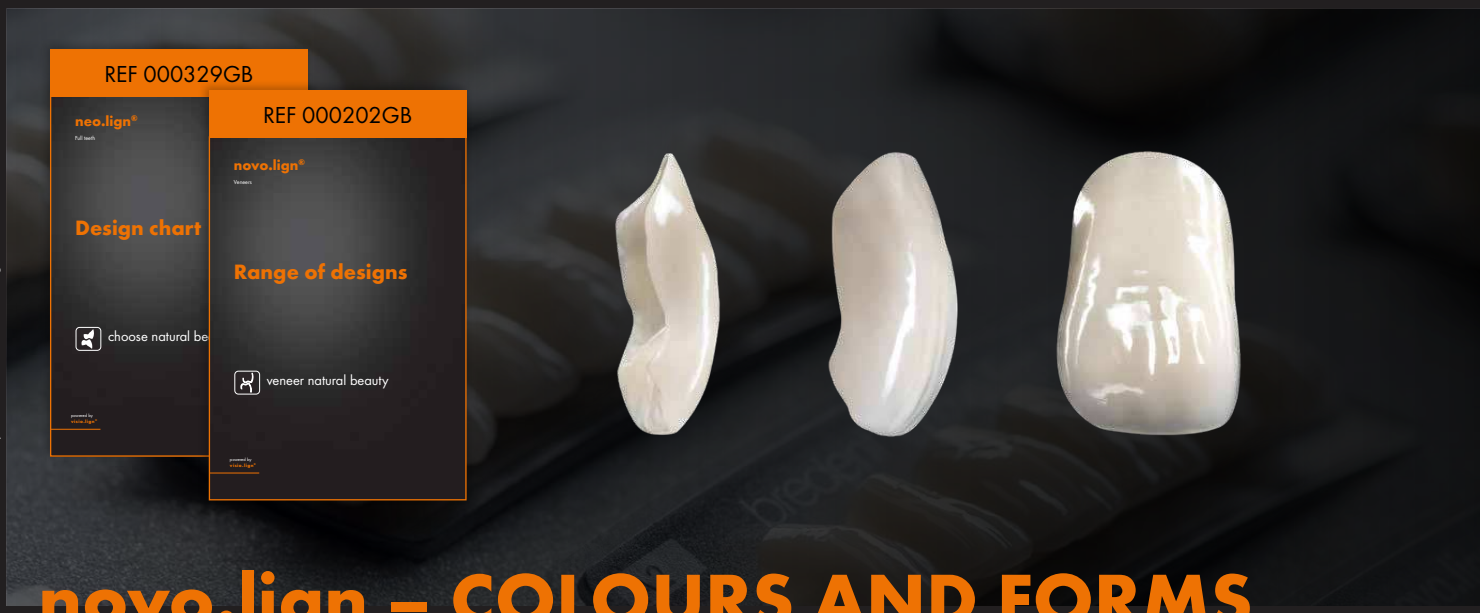
Sebastian Schuldes, Dental Technician, M.Sc.

.lign

“I have been successfully working with novo.lign veneers and neo.lign denture teeth since 2007. The system consisting of novo.lign, the corresponding bonding composite and the corresponding primer / bonder doesn’t just help me achieve a high aesthetic level, it also ensures the long-term success of the restoration due to its high plaque-resistance and low staining susceptibility. For combination work and implant prosthetics, the combination of novo.lign and neo.lign is the perfect solution for me.”

Antonio Lazetera, Dental Technician

All anterior and posterior teeth moulds, sizes and designs for the veneers can be found in the novo.lign "Range of designs" brochure (REF 000202GB) and, for the denture teeth, they can be found in the "Design chart" brochure (REF 000329GB).



novo.lign – COLOURS AND FORMS

BL3	A1 *	A2 *	A3 *	A3.5 *	A4	B1	B2	B3 *	B4	C1	C2	C3 *	C4	D2	D3	D4

* The novo.lign L-designs are only available in the colours A1, A2, A3, A3.5, B3, C3

novo.lign A

Anterior/front teeth

Buccal wall thickness 1.0 mm

- 12 upper moulds
- 3 lower moulds

novo.lign P

Posterior teeth

G-designs

Buccal wall thickness 1.2 mm

- Multi-functional occlusal surface design for all occlusion concepts

Available in sizes

-	G3	G4

small — large

L-designs *

Buccal wall thickness 1.0 mm

- Lingualised occlusal design for full dentures

Available in sizes

L2	L3	-

small — large

W-designs

Buccal wall thickness 0.8 mm

- Multi-functional occlusal design for all occlusion concepts
- Extra-wide tooth design, particularly recommended for veneering crowns and bridges

Available in sizes

W3	W4	W5

small — large

Not all images are to scale.

We reserve the right to make technical modifications, change the dimensions and colour; subject to printing errors and mistakes.

Differences in the colour of the image and the original product are due to the printing process.

bond.lign
primer/bonder

The bonding system for the permanent, secure chemical adhesive bonding of all visio.lign system components to all common framework materials, such as NEM, HIPC (PMMA/composite), BioHPP (PEEK), zirconium oxide, EM and titanium.

MKZ-Primer

MKZ EM-Aktivator

K-Primer

visio.link

combo.lign
opaquer

Light-curing and self-hardening opaquer, whose shade is coordinated with the combo.lign bonding composite and novo.lign. 3 tooth shades cover the whole range of the classic A–D colour system.

combo.lign
Bonding composite

Light-curing and self-hardening luting composite for reliable shade reproduction and perfect bonding of novo.lign veneers and all framework materials. combo.lign is available in the classic A–D shades and BL3 bleached shade.

crea.lign
opaquer

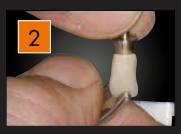
The light-curing crea.lign opaquer offers colour stability for freestyle layering and when using novo.lign veneers. All shades of the classic A–D system are covered with just eight opaquers.

crea.lign
veneering composite

The light-curing ceramic composite for veneering and free-style layering. crea.lign is available as a gel or paste in all shades of the classic A–D colour system as well as in the BL3 bleached shade. There are also various crea.lign enamel, incisal and GUM masses available.

Thermo-Pen
Hot air blower with piezo technique

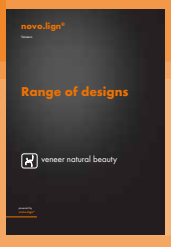
The Thermo-Pen works without an open flame and can feed hot air up to 250 °C into the veneer interior.



visio.lign

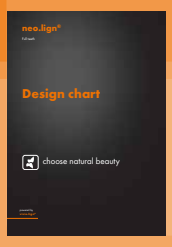
The Aesthetic and Functional System

Overview of visio.lign media



novo.lign
Range of designs
Overview of all novo.lign veneer anterior and posterior tooth designs.

REF 000202GB



neo.lign
Design Chart
Overview of all neo.lign anterior and posterior denture teeth.

REF 000329GB

bond.lign
Primer/bonder
An overview of the primer/bonder - the specialist for the secure bonding of all materials.

REF 009539GB

crea.lign - veneering composite
The light-curing composite features impressive natural opalescence and unparalleled light transmission for natural beauty.

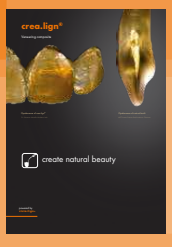
novo.lign - veneers
The novo.lign veneers feature an extended neck and a natural depth thanks to the morphological layer structure. The gold standard in implant prosthetics.

visio.CAM - composite blanks
The materials expertise from the visio.lign system is also available for CAD/CAM processing. The blanks from the visio.CAM line are compatible with the entire visio.lign system.

neo.lign - denture teeth
The neo.lign denture teeth feature the same shades, designs and materials as the novo.lign veneers - optimised for fixed/removable restorations.

bond.lign - primer/bonder
The primer/bonder system for a permanent and secure chemical adhesive bond between all system components and common framework materials – including BioHPP (PEEK).

visio.paint - stains
The visio.paint stains enable fast and simple individualisation of veneers.



crea.lign
veneering composite
Discover the full range of crea.lign light-curing ceramic composites.

REF 000577GB

visio.lign
Manual
Step-by-step instructions of the various processing techniques and possibilities of the visio.lign systems.

REF 000234GB

novo.lign & top.lign
professional
Quick Guide
Quick guide to temporary fixed restorations with novo.lign veneers and top.lign professional.

REF 000754GB

novo.lign

Veneers

veneer natural beauty

bredent group

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