visio:lign

crea.lign freestyle Manual

Natural aesthetics

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Framework material

BioHPP	Zirconium oxide NPM/Titanium	Precious metal (High gold content/gold reduced)

Adhesive

visio.link

MKZ Primer

MKZ Primer + MKZ EM-Activator

Veneer material

Opaquer combo.lign (for retentions)

crea.lign opaquer

crea.lign paste (dentine)

crea.lign (dentine)

crea.lign Modifier	crea.lign GUM	visio.paint

crea.lign Enamel	crea.lign Incisal	crea.lign Transpa

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1. Framework conditioning

MKZ Primer

Preparation of the adhesive bond of composites:

- CoCr (EMF/NPM) alloys
- Titanium alloys
- Zirconium dioxide (aluminium oxide/spinel ceramic)

Conditioning of metal and zirconium frameworks (CoCr/NPM/titanium/ zirconium)

Sandblast with aluminium oxide with a 110 µm grain at a pressure of 3 to 4 bar for metal frameworks, or 2 bar max. for zirconium frameworks.
The framework must not be cleaned with the steam blaster after sandblasting;
remove any impurities using alcohol and a clean brush.
Then apply the MKZ primer and wait until this evaporates.

MKZ Primer + MKZ EM-Activator

(mix at a ratio of 1:1)

Preparation of the adhesive bond of composites:

- Precious metal alloys (Au/Ag/Pt/Pd)
- eco-alloys (precious metal-reduced alloys)

Conditioning of precious metal frameworks (palladium-based/ silver-based alloy)

Sandblast metal frameworks with aluminium oxide with a 110 µm grain at a pressure of 2 to 3 bar.
The framework must not be cleaned with the steam blaster after sandblasting;
remove any impurities using alcohol and a clean brush.
Then mix the MKZ primer and the MKZ EM-activator at a ratio of 1:1, apply and wait until the mixture evaporates.

visio.link

Preparation of the adhesive bond of composites:

- Composites (veneer composite/composite teeth)
- PMMA materials/teeth
- High-performance polymers (Bio XS/BioHPP)

Conditioning of plastics (Composite/PMMA materials/ highperformance polymers such as Bio XS/BioHPP):

Sandblast plastics/plastic frameworks with aluminium oxide with a 110 µm grain at a pressure of 2 to 3 bar. The framework must not be cleaned with the steam blaster after sandblasting; remove any impurities using alcohol and a clean brush.
visio.link is then applied thinly and cured in a light polymerisation device for 90 seconds (wavelength range 370 nm - 400 nm).
The conditioned area should have a semi-matt finish after light hardening, then the layer thickness is perfect.

Sandblasting

Waiting time

Light hardening time

Maximum layer thickness

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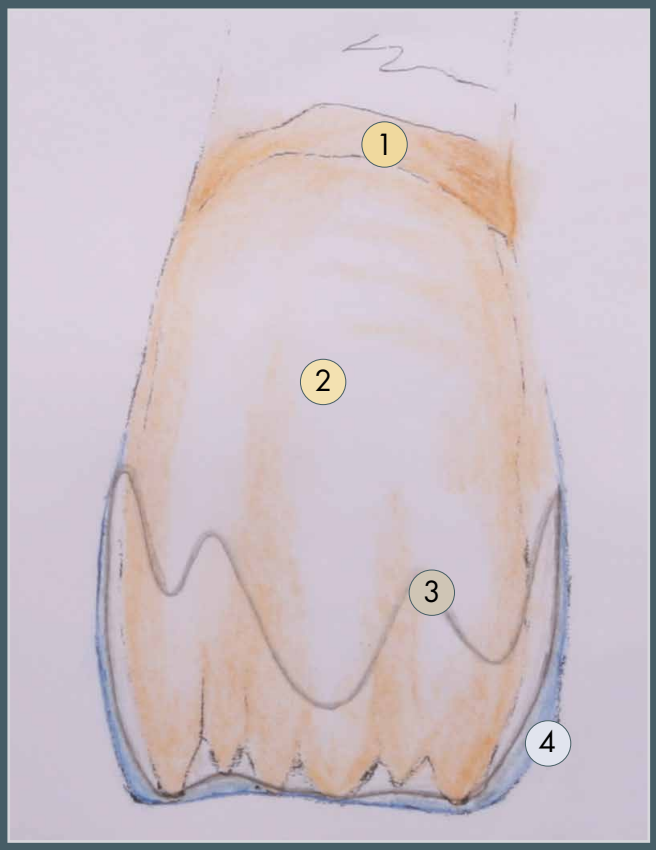
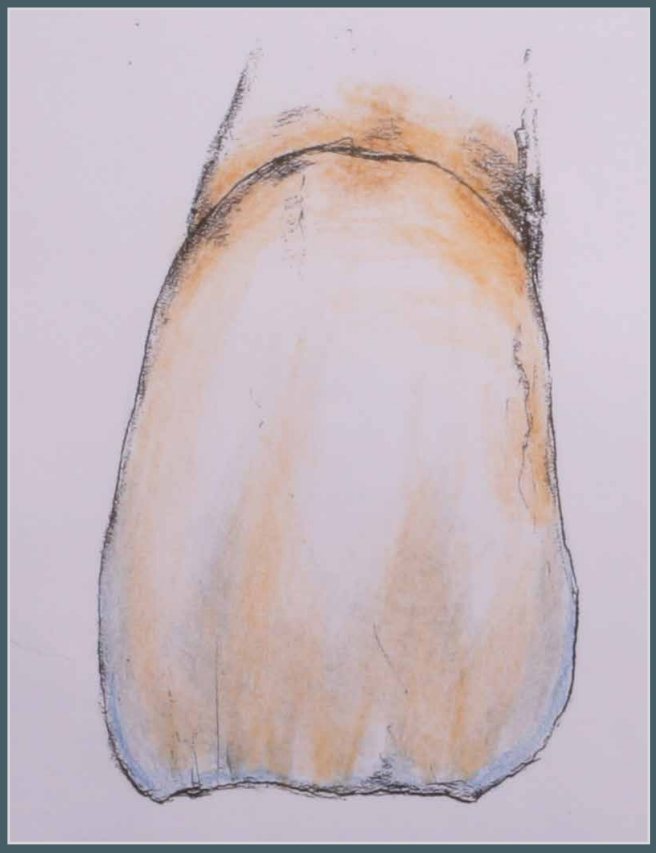
2. Layering instructions / Customisation

Standard layering



1. The neck of the tooth is coated with the dentine mass A3.5 or beige modifier – one degree darker than the subsequent tooth colour.
2. The body of the tooth and mamelons are coated with the dentine mass A3.
3. Almost the entire edge is built up with Enamel E2.
4. The form of the cutting edge is completed with Incisal opal.



Standard layering

1

Sandblast the metal framework with a pressure of 3 to 4 bar with 110 µm aluminium oxide. Do not steam blast, and do not blast with compressed air.

2

Apply MKZ primer with a clean single-use brush and allow to evaporate.

3

For mechanical retentions, the dual-hardening combo.lign opaquer should be applied as a first layer (wash opaquer).

4

Apply crea.lign opaquer.

5

The body of the tooth is coated with crea.lign paste A3, the neck of the tooth with A3.5.

6

The edge is coated with Enamel E2.

7

Apply crea.lign Modelling Liquid to reduce the dispersion layer. Remove the remaining dispersion layer with crea.lign surface cleaner.

8

The veneer finished and polished with the visio.lign Toolkit.

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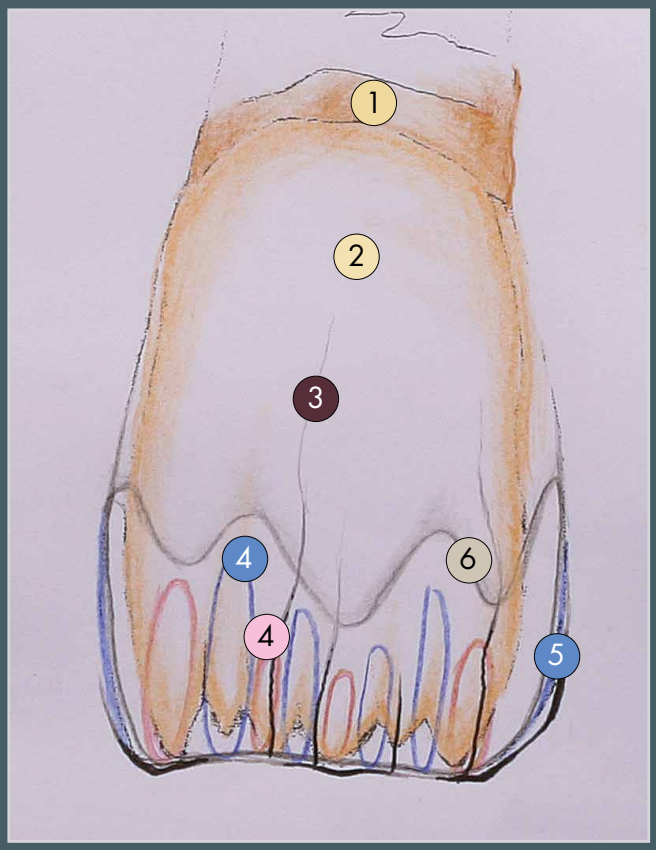
2. Layering instructions / Customisation

Customised layering



1 The neck of the tooth is coated with the dentine mass A3.5 or beige modifier – one degree darker than the subsequent tooth colour.

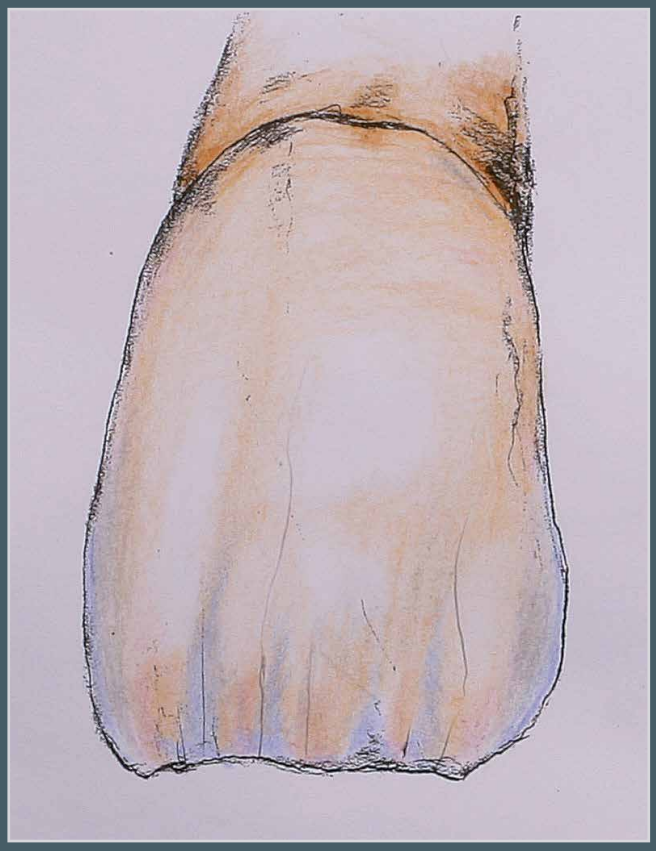
2 The body of the tooth and mamelons are coated with the dentine mass A3.

3 Add thin enamel cracks using visio.paint ebony.

4 Place alternating layers of Incisal blue and Incisal rose over the mamelons.

5 Apply Incisal blue in a mesial and distal direction from the cutting edge.

6 The entire edge is built up with Enamel E2.



Customised layering

180 sec | max. 2 mm

Coat the body of the tooth with crea.lign paste A3.

180 sec

Coat the neck area with crea.lign A3.5.

180 sec

Apply visio.paint for special effects, such as enamel cracks.

180 sec

Coat with alternating layers of crea.lign Incisal blue and rose.

180 sec

Incisal blue is applied in a mesial and distal direction.

180 sec

The cutting edge is completed with Enamel E2.

180 sec

Apply crea.lign Modelling Liquid to reduce the dispersion layer and polymerise. Remove the remaining dispersion layer with crea.lign surface cleaner.

The veneer finished and polished with the visio.lign Toolkit.

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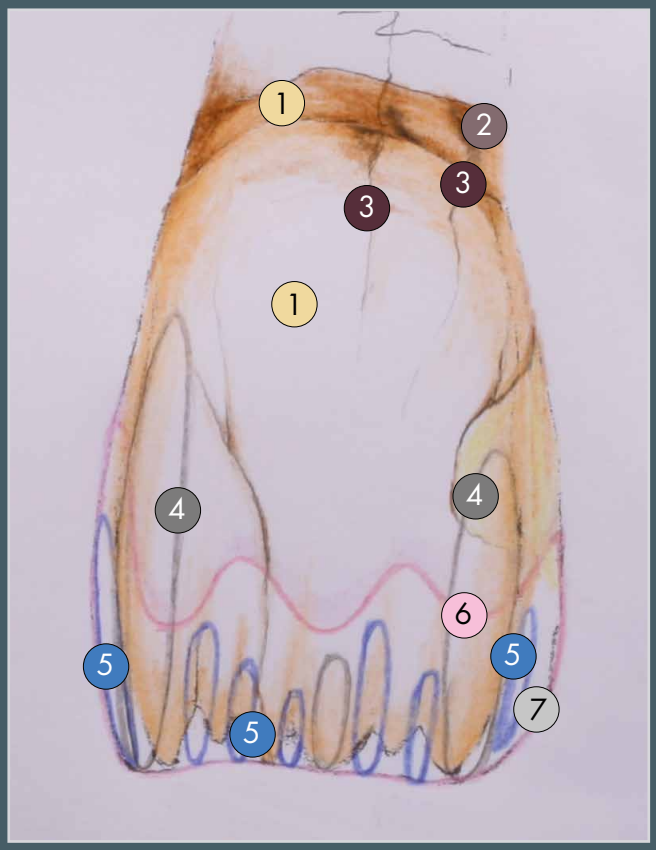
2. Layering instructions / Customisation

Pronounced customised layering



1. The neck of the tooth and the body of the tooth with mamelons are coated with the dentine mass A3.
2. Dark contrasts are ground into the neck area with orange Stains and brown Stains, which is also mixed with visio.paint ebony.
3. Add thin cracks using visio.paint ebony.
4. Marginal ridges are built up with Incisal universal.
5. Place Incisal blue over the mamelons and on the marginal ridges.
6. Complete the cutting edge area with Incisal rose.
7. Complete the marginal ridge with crea.lign Transpa Clear in a distal direction and laminate the veneer.

Pronounced customised layering

Wash opaquer, dual-hardening combo.lign opaquer on BioHPP copings.

11 BioHPP copings, 21 NPM copings.

Wash opaquer, dual-hardening combo.lign opaquer on NPM copings.

No colour variation discernible, despite the use of different framework materials.

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2. Layering instructions / Customisation

neo.lign plastic tooth

Abrade and sandblast the neo.lign full tooth down to the dentine.

90 sec

Then apply visio.link thinly and polymerise.

180 sec

crea.lign Incisal blue is applied in a mesial and distal direction.

180 sec

crea.lign Transpa emphasises the mamelons.

180 sec

The incisal area is completed with crea.lign Enamel.

180 sec

Apply crea.lign Modelling Liquid to reduce the dispersion layer and polymerise. Remove the remaining dispersion layer with crea.lign surface cleaner.

Before

Plastic tooth finished and polished with the visio.lign Toolkit.

After

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Milled plastic crown (monolithic)

1

Crown conditioned according to the instructions on p. 3.

2

90 sec

The crown is coated thinly with visio.link.

3

180 sec

The crown is painted on the surface with visio.paint stains.

4

The visio.paint stains can be thinned with crea.lign Modelling Liquid, in order to create smooth transitions.

5

180 sec

The crown is now covered with crea.lign Transpa Clear, in order to protect the paint from wear and plaque accretion.

6

180 sec

Apply crea.lign Modelling Liquid to reduce the dispersion layer and polymerise. Remove the remaining dispersion layer with crea.lign surface cleaner.

Before

7

After

The crown was finished and polished to a high gloss with the visio.lign toolkit.

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3. Corrections

Sandblast or roughen with coarse diamond, do not steam blast, do not blast with compressed air.

90 sec

Apply visio.link thinly.

180 sec

Apply crea.lign to correct the form of the tooth.

180 sec

Apply crea.lign Modelling Liquid to reduce the dispersion layer. Remove the remaining dispersion layer with crea.lign surface cleaner.

The veneer finished with the visio.lign TOOLKIT.

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4. Processing with the visio.lign Toolkit

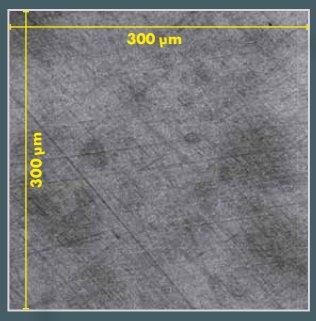
Process the surface with the mills from the visio.lign Toolkit.

The transition to the framework material and the veneer is smoothed using the rubber lens.

Pre-polishing is carried out using a goat hair brush and Acrypol polishing paste.

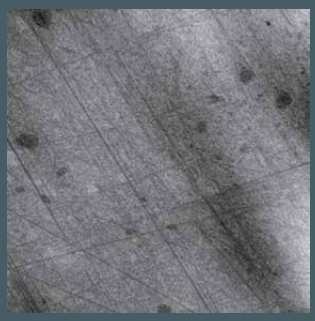
High-gloss polishing is carried out using a cotton buffing wheel and Abraso Starglanz.

Surface roughness



crea-lign 0.024 µm

Thanks to the visio.lign Toolkit and the polishing strategy outlined above, surface roughnesses of the crea.lign composite of only 0.024 µm (Ra value of crea.lign) and 0.030 µm (Ra value of crea.lign paste) can be achieved.



crea-lign paste 0.030 µm

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5. Polymerisation devices and times

Suitable light-polymerisation units

Polymerisation times for visio.link, combo.lign and crea.lign

* manufacturer's data ** new set of lamps is recommended

Manufacturer	Product name	Wavelength in nm *	Polymerisation time visio.link	Polymerisation time combo.lign	Polymerisation time crea.lign/Opaquer combo.lign/ crea.lign Opaquer
bredent	bre.Lux Power Unit	370 - 500	90 s	180 s	180 s
Dentsply / Degudent	Triat, Triat 2000 Eclipse	400 - 500 n.s.	3 min 60 s	6 min 180 s	6 min 180 s
Heraeus Kulzer	Dentacolor XS, Uni XS Heraflash	320 - 520 320 - 520	90 s 90 s	180 s 180 s	180 s 180 s
GC	Laboligth LV-III	380 - 490	2 min	5 min	5 min
Ivoclar Vivadent	Targes Power Ofen Lumanat 100	400 - 580 400 - 580	4 min 4 min	180 s 180 s	180 s 180 s
Schütz Dental	Spektra 2000	310 - 500	2 min	180 s	180 s
Shofu Dental	Solitilite EX	400 - 550	90 s	180 s	180 s
Kuraray Dental	CS 110	n.s.	2 min	5 min	5 min
Hager & Werken	Speed Labolight	320 - 550	90 s	180 s	180 s
3M ESPE	Visio BETA (new P1 - P4) Visio BETA (old U0)	400 - 500 400 - 500	> 4 min. (P2) 7 min. (U1, U3)	7 min. (P2) 15 min. (U0)	15 min. (P1) 15 min. (U0)

bre.Lux polymerisation times

		bre.Lux LED N (manual lamp)		bre.Lux Power Unit (stationary unit)		
Manufac-turer	Product name	Final polymeri-sation	Fixation/ Prehardening	Intermediate polymerisation (layers)	Final polymerisation	Prepolymerisation function/Reduction
bredent	visio.link	30 s	–	-	90 s	40 s 50%)
bredent	combo.lign	X	15 s	120 s	180 s	-
bredent	crea.lign	X	15 s	180 s	360 s	20 s (50%)
bredent	crea.lign paste	X	15 s	180 s	360 s	-
bredent	Opaquer combo.lign	X	15 s	180 s	180 s	-
bredent	crea.lign Opaquer	–	30 s	180 s	180 s	-
bredent	visio.paint	–	40 s	90 s	90 s	-
bredent	crea.lign Stains	–	30 s	90 s	90 s	-
bredent	novo.nect	30 s	-	-	90 s	40 s (50%)
bredent	novo.temp	X	15 s	120 s	180 s	-
bredent	Ropak UV	X	-	180 s***	360 s	-
bredent	Compact opaquer	X	-	180 s***	360 s	-
bredent	Compact opaquer tooth-coloured UV	X	-	180 s	360 s	-
bredent	compoForm UV	30 s	15 s	-	180 s	-
bredent	Tray material UV*	X	X	90 s	2 x 180 s	40 s (50%)
bredent	Suitable light-polymerisation units	30 s**	15 s	90 s	180 s	20 s (50%)
bredent	SERACOLL UV	15 s	15 s	-	90 s	-
bredent	Qu-connector	30 s	-	-	90 s	40 s (50%)
Heraeus	Signum	X	-	180 s	360 s	20 s (50%)
Heraeus	Palatray XL	X	-	90 s	2 x 180 s	40 s (50%)
Shofo	Solidex	X	-	180 s	360 s	20 s (50%)
GC	Gradia	X	15 s	180 s	360 s	20 s (50%)
Wegold	S-Lay	-	-	180 s	360 s	20 s (50%)
VITA	VITA VM LC Opaque	-	30 s	-	2 x 360 s	-
VITA	VITA VM LC Compos.	-	30 s	180 s	Pontics up to max. 2 mm: 360 s	fix up to 1.5 mm, 180 s (50%)
Degudent	in:joy	-	-	180 s	360 s	20 s (50%)

180 s Polymerisation time
- not intended
X Contraindication

* If UV tray material is used, polymerisation is carried out from both sides for 180 seconds each. Optionally, prehardening for 90 sec. may be carried out (upper side); during final polymerisation, the bottom side is polymerised first
** for a single application
*** Apply opaquer in two layers

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6. Colour assignment and colour ring

Colour assignment

Enamel / A-D Combination	BL3	A1	A2	A3	A3.5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
E1	Univ.	X					X				X				X		
E2			X	X				X									
E3					X				X	X		X	X			X	X
E4						X								X			

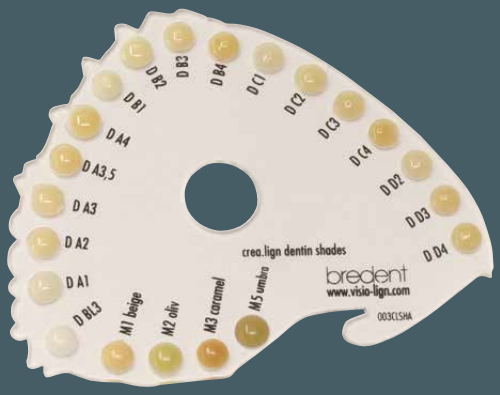
Combination tables

crea.lign opaquer	1	2	3	4	5	6	7	8	Gum	Z
A-D colours	A1 B2	A2	A3 D3	BL3/B1 C1	C2/C3 D2/D4	B3 B4	A3.5	A4 C4	Gum	Zirconium liner

combo.lign opaquer	light	medium	intensive	Gum
A-D colours	A1-A3 / B1 / B2 C1 / C2	A 3.5 / B3 / B4 D2 / D3	A4 / C3 / C4 D4	Gingival colours

Colour ring

crea.lign Incisal Stains & GUM shades



crea.lign dentine shades

We would like to thank MDT Jürgen Freitag, Bad Homburg (DE), for the images and active support provided during the preparation of the crea.lign freestyle Manual.

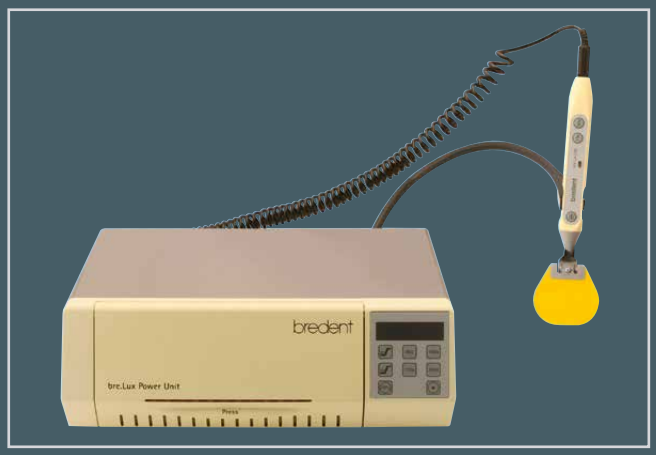
visio.lign system components

Composite processing kit

The visio.lign Toolkit has been optimised for processing composite and visio.lign veneers and ensures a perfect finish.

The combination of the materials of the visio.lign veneering system and the visio.lign Toolkit results in surfaces featuring plaque resistance and shade stability and their quality and resistance is identical to those of a ceramic material.

- Burs with relief produce smooth surfaces and reduce the time needed for polishing
- Prepolishing and high-gloss polishing paste included in the kit
- Tools arranged at different heights to ensure easy access and grasp
- Removable glass jar to avoid drying out of the high-gloss polishing paste
- Pictograms and reference numbers printed on the tools for better visual control
- Three empty spaces for additional tools



bre.Lux Power Unit

Versatile polymerisation unit for practices and laboratories.

In the past, several devices were necessary for processing veneer and dental materials. With bre.Lux, the concept of processing all current materials with one single device has become reality for the first time.

Performance

- Fixation / Hardening / Intermediate polymerisation and final thorough hardening directly in the workplace and with one single device
- 370 - 500 nm covers the required wavelength range, for the manual lamp as well
- Performance delay and reduction maximise the properties and results of dental materials
- Start-up delay and polymerisation time can be easily combined
- Large volume for 2 models, optimally and uniformly illuminated

Energy

The bre.Lux Power Unit consists of one LED light polymerisation device with 21 power LEDs in 3 different capacities, from 370 nm to 500 nm. The LEDs have a useful life of 20,000 hours. The bre.Lux LED N manual lamp (with spiral cable) features a capacity ranging from 370 nm to 500 nm.

The flexible hose – with receptacle ring for the manual lamp – serves as third hand and allows two-handed work.

crea.lign surface cleaner

crea.lign surface cleaner is a surface cleaning agent to remove the dispersion layer. Thanks to the special mixture of the crea.lign surface cleaner, the dispersion layer is dissolved and removed entirely from the surface. Surface cleaning needs to be carried out carefully and a toothbrush should be used to thoroughly clean indentations, such as fissures, for example.

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