#### DIRECT SYSTEM

## Step by Step





shaping the future of dentistry



## Bio-Esthetics and function in one appointment



edelweiss dentistry is a dental "think tank" that conceptualizes and produces innovative systematic solutions that are developed together with partners within the dental industry and marketed exclusively via the dental distribution network. The alliance between inspiration and technical know-how is focus. VENEER & OCCLUSIONVD from edelweiss are state of the art for modern and minimally invasive esthetic dentistry. For the first time in the history of dental, it is now possible to work with prefabricated veneers made from Nano-Hybrid glass using modern laser technology.

Never before has it been feasible to directly create the natural shape and youthful luminance of a tooth, so easily and perfectly in only one appointment. Its versatile area of application together with its time and cost saving procedure make edelweiss VENEER & OCCLUSIONVD a sound investment in the future with the best interest of the patient in mind. Convince yourself.



Stephan Lampl CEO, Founder & Inventor of edelweiss dentistry

Claudio Novelli Clinical and Scientific Director

## The Progressive Technical Concept

#### edelweiss VENEER

The laser-treated process combines the best of two worlds. The section below shows a distinct layer of vitrified glass fused together with a sintered and dynamic Nano-Hybrid glass. The surface is homogenous without visible composite resin structure.

This results in an anorganic biomechanical restoration in function and esthetics. The difference lies in its similarity with nature.



Smooth inorganic surface without visible composite structure

Solid and homogeneous glass phase

Swasydd C)

Laser sintered monobloc

Magn. \_\_\_\_ 2000x

2 mm

Magn 31x

5

- 100 *µ*m

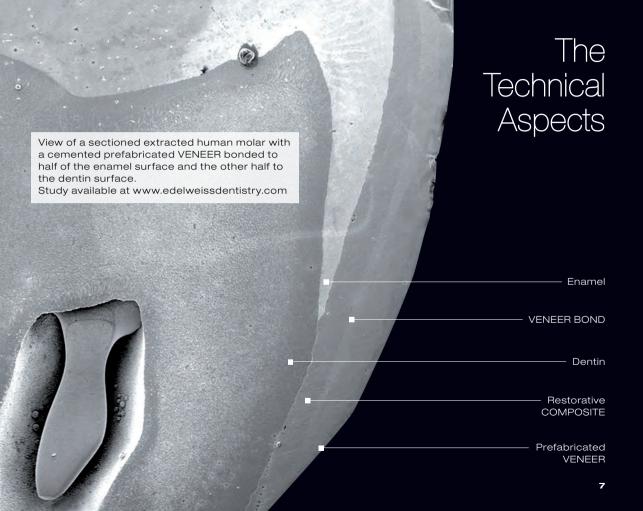
## Fatigue behavior for edelweiss VENEERs:

A recent in vitro study demonstrated that prefabricated edelweiss VENEERs cemented onto the enamel and dentin surface of molars, effectively resisted simulated functional fatigue and load testing. Virtually no defects were observed at both the enamel and dentin margins, either before or after loading, which typically represents the most vulnerable area of a restoration. The most relevant observation made was obtained upon the evaluation of the inner adaptation of the restoration. No defects were visible at the interface of the enamel or in between the restorative composite and the edelweiss VENEER, which confirmed the excellent bonding strength and stability at both interfaces (dentin/enamel to composite, composite to edelweiss VENEER).



#### Université de Genève

Prof. Dr. Didier Dietschi D.M.D, PhD, Privat-Docent Specialist SVPR Associate. Professor



## Natural Layering Technique

The concept was proposed in 1995 by Prof. Dr. D. Dietschi and was published for the first time in 1997. It is based on the idea of creating a synthesis between light, material and color in order to mimic the natural tooth structure.

edelweiss COMPOSITE restructures teeth using two toothlike masses that are comparable to dentin and enamel to create restorations with natural looking results.

The optical characteristics of natural dentin and enamel were measured separately. The resulting color codes served as a reference towards the development of the edelweiss COMPOSITE. One shade system that covers the complete range of possible tooth colors.



## 5 DENTIN

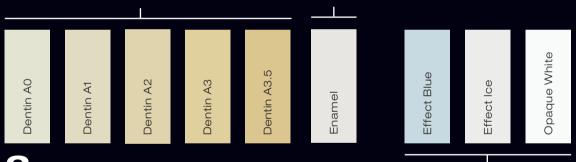
Single opacity - same hue, but different chromalevels - fluorescence. From Dentin A0, for the restoration of bleached teeth to Dentin A3.5, for cervical restorations of darker teeth for elderly patients.

Dentin Body shades exhibit high opacity and fluorescence which correspond to natural shades of dentin.

### 1 ENAMEL

The enamel shade intensifies the translucency, which increases the true opalescence for all optical variations found in natural dentition.

Basic Tint: Enamel



## **3** EFFECT SHADES

Effect Blue serves to enhance blue-opalescent effects of the incisal edge. Effect lce helps to simulate widespread enamel opacities. Opaque White is mainly used in combination with other shades to produce "opaquers" of a desired shade to cover either severely discolored tissues or metals. Tint:

Effect Blue, Effect Ice, Opaque White

## The Technical Aspects & Sizes

#### MORPHOLOGY

Ultra-thin, anatomical edelweiss VENEERs and OCCLUSIONVDs in three sizes (S, M & L). The laser-treated process combines the best of two worlds: a homogeneous, inorganic and maximum gloss surface with a sintered and dynamic Nano-Hybrid glass. Thus, an optimal integration in function and aesthetics is achieved.

Due to the natural morphology, the prefabricated edelweiss VENEERs and OCCLUSIONVDs are very easy to incorporate into an existing restoration and occlusion.



## direct system

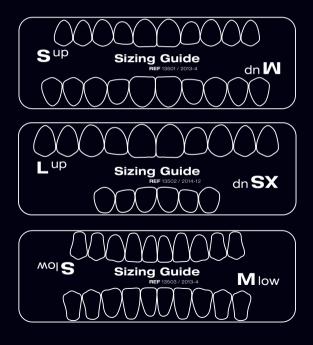
#### SHAPES AND SIZES

Based on a study of all shape and size variations of natural tooth anatomy, prefabricated and contourable universal veneer and occlusion shapes for the upper and lower arches were developed in the following range of sizes:

VENEER: 20 lower S/M, 10 each - 30 upper S/M/L, 10 each - 6 upper XS OCCLUSIONVD: Size S, M, L, upper and lower jaw, 4 per Quadrant.

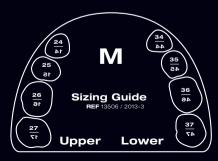
#### THE SELECTION ...

of the tooth shape is made using the available sizing guide (VENEER / OCCLUSIONVD Sizing Guide). The sizing guide is positioned over the teeth to be restored, and the outline allows for proper selection of the best-fitting VENEER and OCCLUSIONVD.



# DIRECT SYSTEM











**TENSED SMILE BEFORE** 





RELAXED SMILE AFTER

## Step by Step



BEFORE

AFTER



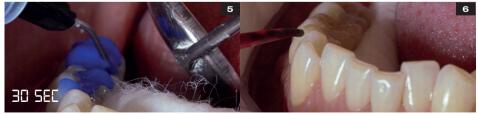
Relined and customized OCCLUSIONVD by dental technician.

Application of edelweiss VENEER Bond onto OCCLUSIONVD.



Gently air dry inner surface.

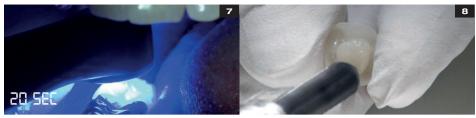
Light cure for 20 sec. with VALO (UPI) at standard power. With other Light cure for 40 sec.



Etching for 30 sec.

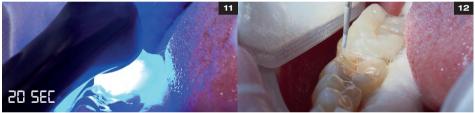
Bonding (UPI, Peak Universal Bond) / Floss interproximal areas before light curing.

Step by Step



Light cure for 20 sec. with VALO (UPI) at standard power. With other Light cure for 40 sec.

Application of N.-H. Dentin or Enamel Composite.

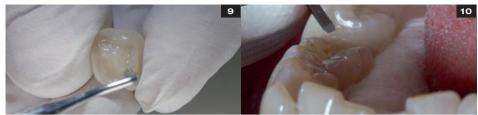


Floss interproximal areas then light cure for 20 sec. with VALO (UPI) at standard power. With other Light cure for 40 sec.



Floss interproximal areas then light cure for 20 sec. with VALO (UPI) at standard power. With other Light cure for 40 sec.

Finish and polish margins using fine finishing diamonds and Jiffy polishers.



Adaptation of N.-H. Dentin/Enamel Composite.

Positioning and removal of surplus material.



Insertion of the OCCLUSIONVD.

Positioning of OCCLUSIONVD and removal of surplus material. Adapt margins.



Relaxed bite position in vertical dimension.

Front view / space for lower VENEERS.





Shade Guide.

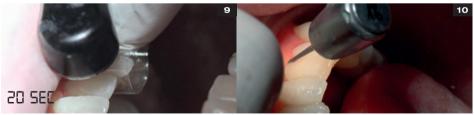


Select the dentin shade at cervical area with dentin Shade Guide.



Apply Ultra-Etch for 20 sec., then rinse and First anterior slightly dry, leaving surface slightly damp.

First anterior VENEER in position.



Light cure lingual and facial side of tooth for 20 sec. each (VALO UPI). With other Light cure for 40 sec.



Placing the enamel VENEER shell over the dentin core (for light refraction place glycerine within enamel shell first).

Select edelweiss VENEER size using edelweiss Sizing Guide (single or combined VENEER Sizes may be used).



Place Mylar Strips both mesial and distal of all teeth to be treated.



Pull Mylar Strips facially to achieve smooth margins and cure through Mylar Strips for 3 sec. (VALO UPI). With other Light cure for 6 sec.



Finish incisal edge using fine finishing diamonds.

Finish interdental areas using Soflex Discs.

Step by Step



Polish VENEER margins using silicone rubber Visual observation. polisher.



Finish interproximal margins using a fine finishing diamond.



Proof of functional movements.



Fit and adapt the composite edelweiss VENEER using the gingival margin as your guide.



Sharpen the marginal edges and roughen inner surface of the edelweiss VENEER.



Visual observation.

Reocclusion.



Trial fit visualization of edelweiss VENEERs.



Prepare tooth using minimally invasive techniques.



Sharpen the marginal edges and roughen inner surface of the edelweiss VENEER.



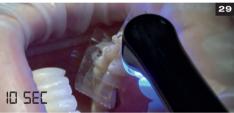
Trial fit visualization of edelweiss VENEERs.

Step by Step



Insert retraction cord. (00 ultrapak)

Place Mylar Strips both mesial and distal of all teeth to be treated. Apply Ultra-Etch (UPI) for 20 sec., then rinse and slightly dry, leaving surface damp.



With VALO (UPI) cure for 10 sec. at standard power. With other light cure for 20 sec.



Place a puddle coat of VENEER Bond on edelweiss VENEER and gently agitate for 10 sec. Blow air using half pressure to thin and remove solvents.



Dispense strip of edelweiss N.-H.Composite onto inner surface of the VENEER.

Adapt N.-H. Composite into edelweiss VENEER. (Optional: characterize using flowable Enamel Composite or Effect Shades, for higher translucency on incisal area).



Place a puddle coat of Peak Universal Bond (UPI) on tooth and gently agigate for 10 sec.

Blow air using half pressure to thin and remove solvents. Surface will appear shiny.



Light cure for 20 sec. with VALO (UPI) at standard power. With other Light cure for 40 sec.



Gently air dry.



VENEER ready for placement.



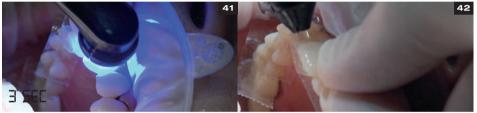
Position and press the edelweiss VENEER into place (Tip: reduce operatory light).

32



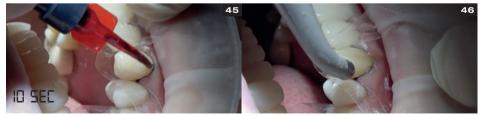
Remove excess edelweiss N.-H. Composite from incisal edge.

Tack cure with VALO (UPI) near the incisal edge for 3 sec. using a point cure lens to stabilize VENEER.



Cure through Mylar Strips for 3 sec. (VALO UPI). With other Light cure for 6 sec.

Bend Mylar Strip over interdental area.



Place a puddle coat of Peak Universal Bond (UPI) on tooth and gently agigate for 10 sec.

Blow air using half pressure to thin and remove solvents. Surface will appear shiny.





Remove excess edelweiss N.-H. Composite from the rest of the margins.

Pull Mylar Strips facially to achieve smooth margins.



Light cure with VALO (UPI) lingual and facial side of tooth for 20 sec. each. With other Light cure for 40 sec.



Cemented VENEER.

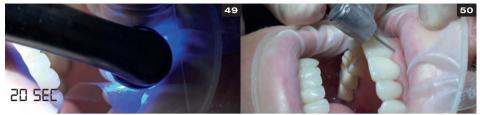


With VALO (UPI) cure for 10 sec. at standard power. With other light cure for 20 sec.



Position and press the edelweiss VENEER into place (Tip: Reduce operatory light).

Step by Step



After positioning light cure with VALO (UPI) palatal and facial side of edelweiss VENEER for 20 sec. each.

Finish cervical and interproximal margins using fine finishing diamonds.





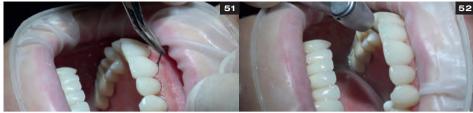
Finish interproximal areas using finishing Soflex Discs.

Reocclusion.



For high shine polish VENEER margins with Visual observation. KENDA polishers.





Removal of retraction cords.

Finishing of incisal edges.

silicone rubber polishers.

Extra

fine



Visual observation.









Extra fine



high-shine & coarse



BEFORE

AFTER



# VENEER



BEFORE

AFTER





#### ADVANCED DIRECT SYSTEM VENEER & OCCLUSIONVD TOOLBOX

#### **REF 13700**

#### 36 edelweiss VENEERs

- 1 VENEER SET S up (1 x 14, 13, 12, 11, 21, 22, 23, 24 S)
- 1 VENEER SET M up (1 x 14, 13, 12, 11, 21, 22, 23, 24 M)
- 1 VENEER SET L up (1 x 14, 13, 12, 11, 21, 22, 23, 24 L)
- 1 VENEER SET S low (1 x 43, 42, 41, 31, 32, 33 S)
- 1 VENEER SET M low (1 x 43, 42, 41, 31, 32, 33 M)

#### 48 edelweiss OCCLUSIONVDs

- 2 OCCLUSIONVD SET S up (1 x 17, 16, 15, 14 S) (1 x 24, 25, 26, 27 S)
- 2 OCCLUSIONVD SET M up (1 x 17, 16, 15, 14 M) (1x 24, 25, 26, 27 M)
- 2 OCCLUSIONVD SET L up (1 x 17, 16, 15, 14 L) (1 x 24, 25, 26, 27 L)
- 2 OCCLUSIONVD SET S low (1 x 47, 46, 45, 44 S) (1 x 34, 35, 36, 37 S)
- 2 OCCLUSIONVD SET M low (1 x 47, 46, 45, 44 M) (1 x 34, 35, 36, 37 M)
- 2 OCCLUSIONVD SET L Iow (1 x 47, 46, 45, 44 L) (1 x 34, 35, 36, 37 L)



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DIRECT SYSTEM VENEER &

#### 25 edelweiss NANO-HYBRID COMPOSITE DENTIN SHADES

- 5 Dentin A0 0.3 g Tip
- 5 Dentin A1 0.3 g Tip
- 5 Dentin A2 0.3 g Tip





#### OCCLUSIONVD TOOLBOX

- 5 Dentin A3 0.3 g Tip
- 5 Dentin A3.5 0.3 g Tip

#### 5 edelweiss NANO-HYBRID COMPOSITE ENAMEL SHADE

5 Enamel 0.3 g Tip

1

1

2

1

1

**1** 

#### edelweiss NANO-HYBRID COMPOSITE FLOW

Enamel Flowable 1.5 g Syringe

#### edelweiss EFFECT SHADES

- Opaque White 1.5 g Syringe
- Effect Blue 1.5 g Syringe

#### edelweiss BOND

VENEER Bond 5 ml Bottle

#### ACCESSORIES

Dentin & Enamel Shade Guide VENEER & OCCLUSIONVD Sizing Guide up & Iow FLOW Application Tips (10x) Step by Step Booklet Instructions for use

#### STARTER DIRECT SYSTEM VENEER TOOLBOX

#### REF 13710

#### 20 edelweiss VENEERs

- 1 VENEER SET S up (1 x 13, 12, 11, 21, 22, 23 S)
- 1 VENEER SET M up (1 x 14, 13, 12, 11, 21, 22, 23, 24 M)
- 1 VENEER SET L up (1 x 13, 12, 11, 21, 22, 23 L)

#### 25 edelweiss NANO-HYBRID COMPOSITE DENTIN SHADES

- 5 Dentin A0 0.3 g Tip
- 5 Dentin A1 0.3 g Tip
- 5 Dentin A2 0.3 g Tip
- 5 Dentin A3 0.3 g Tip
- 5 Dentin A3.5 0.3 g Tip

#### 5 edelweiss NANO-HYBRID COMPOSITE ENAMEL SHADE

5 Enamel 0.3 g Tip





**DIRECT SYSTEM V** 





ENEER TOOLBOX

#### edelweiss NANO-HYBRID COMPOSITE FLOW

Enamel Flowable 1.5 g Syringe

1

1

1

1

1

1

#### 2 edelweiss EFFECT SHADES

- Opaque White 1.5 g Syringe
- Effect Blue 1.5 g Syringe

#### edelweiss BOND

VENEER Bond 5 ml Bottle

#### ACCESSORIES

Dentin & Enamel Shade Guide VENEER Sizing Guide up & Iow FLOW Application Tips (10x) Step by Step Booklet Instructions for use

#### STARTER DIRECT SYSTEM OCCLUSIONVD TOOLBOX

#### **REF 13720**

32	edelweiss OCCLUSIONVDs
2	OCCLUSIONVD SET S up (1 x 17, 16, 15, 14 S) (1 x 24, 25, 26, 27 S)
2	OCCLUSIONVD SET M up (1 x 17, 16, 15, 14 M) (1 x 24, 25, 26, 27 M)
2	OCCLUSIONVD SET S low (1 x 47, 46, 45, 44 S) (1 x 34, 35, 36, 37 S)
2	OCCLUSIONVD SET M Iow (1 x 47, 46, 45, 44 M) (1 x 34, 35, 36, 37 M)

#### 25 edelweiss NANO-HYBRID COMPOSITE DENTIN SHADES

- 5 Dentin A0 0.3 g Tip
- 5 Dentin A1 0.3 g Tip
- 5 Dentin A2 0.3 g Tip
- 5 Dentin A3 0.3 g Tip
- 5 Dentin A3.5 0.3 g Tip





DIRECT SYSTEM OCC





LUSIONVD TOOLBOX

#### edelweiss NANO-HYBRID COMPOSITE ENAMEL SHADE

Enamel 0.3 g Tip

5

5

1

1

1

1

#### edelweiss NANO-HYBRID COMPOSITE FLOW

- Enamel Flowable 1.5 g Syringe
- edelweiss BOND
  - VENEER Bond 5 ml Bottle

#### ACCESSORIES

Dentin & Enamel Shade Guide OCCLUSIONVD Sizing Guide up & Iow FLOW Application Tips (10x) Step by Step Booklet Instructions for use



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