

Heraeus



Venus[®] Diamond

presents:
The Venus Diamond
Master Booklet

Venus[®] 

The New Aesthetics.

The outstanding material properties and highly aesthetic shade match of Venus Diamond and Venus Diamond Flow impress dentists throughout the world.

We asked dentists to impress us and to submit their most aesthetic cases to participate in the “Venus Diamond Master Competition”.

Practitioners from France, Germany, Spain, Sweden, Switzerland and the United States provided us with 26 restorations with Venus Diamond or Venus Diamond Flow. The indications ranged from anterior tooth trauma, incisal edge fractures and fissure caries over insufficient amalgam fillings to emergency treatments.

Dr. Fredrik Wennerlund, private practitioner from Ängelholm, Sweden, had impressed the jury most with his highly aesthetic realisation of a diastema closure and elongation of the anterior teeth with Venus Diamond.

“Dr. Wennerlund created a non-visible restoration: Texture, shade and translucency perfectly adapt to the surrounding tooth structure and have been optimally combined to achieve a natural appearance,” the jury of dentists and product developers explained their decision.

Please enjoy this illustration of Fredrik Wennerlund’s case and five other outstanding Venus Diamond restorations.

Congratulations to all participants and thank you for that great inspiration.

AND THE WINNER IS ...





Dr. Frederik Wennerlund

Laxgatan 2
262 32 Ängelholm
Sweden

“I like working with Venus Diamond.
It’s comfortable and I get beautiful results.”



before



after

Indication: Diastema, short teeth, insufficient smile line, disharmonious contours
Type of restoration: Direct veneer
Age of the patient: 45
Composite: Venus Diamond
Bonding System: iBOND
Polishing System: Venus Supra

■ **How did you proceed?**
 Pre-op treatment: Bleaching of lower and upper teeth. Shortening of lower central incisors to create a better smile line. I used a non-prep simplified layering technique. First I made a mock-up to create a silicone index. After etching and bonding with Gluma Comfort Bond I started by applying a very thin layer of Venus Diamond Incisal CL to the silicone index. After light curing I added a small amount of Opaque Dentine OL as a dentine layer. After curing I applied a very thin layer of Incisal CL to achieve the depth-effect and increase the length of the incisal edge. A very thin first layer of Universal A1 was applied to imitate a dentine core. After light curing, a final layer of Universal A1 was applied, adapted and smoothed to create ideal anatomical contours with a brush. I polished with the Venus Supra polishing kit followed by a last polishing step with a brush and diamond polishing paste. Tooth 13 was reshaped to fit into the smile.

■ **Did you use different shades?**
 Incisal CL
 Opaque Dentine OL
 Universal A1

■ **Which technique did you prefer for fabricating the restoration?**
 Layering Technique

■ **Do you have any further comments?**
 Non-prep restoration = very hard to polish



Tobias Mache
Cranachstraße 5
12157 Berlin
Germany

“Perfect microstructure and macrostructure with perfect marginal integrity”



before



after

Indication: Discolouration and inadequate marginal integrity of tooth 11
Type of restoration: Class IV
Age of the patient: 32
Composite: Venus Diamond and Tetric Color®
Bonding system: Optibond FL®
Polishing system: Polishing mop

■ **How did you proceed?**
A 32-year-old female patient presented wanting the appearance of her upper right central incisor to be improved. Clinical examination revealed a restoration on tooth 11, which had been fabricated approximately 7 years ago. The shade, marginal integrity and function of the restoration no longer resembled the natural tooth. The microstructure of the restoration surface in particular did not look like a natural tooth. The tooth had the following characteristics:
Low attrition of the incisal edge, no erosion or wear on the tooth surface. Highly pronounced imbrication lines and perikymata, which produced an irregular tooth surface. There was slight decalcification in the incisal third, which appeared whitish opaque. The tooth shades from the cervical area towards the incisal had insufficient transparent enamel with high shade saturation (chroma) of A3 to A2. There was no translucency. Preparation of the Class IV cavity with diamond instruments, wavy edge at the cavity margin, avoiding sharp line angles. Standard matrix system with wooden wedge from

the palatal, 35% orthophosphoric acid in the total-etch technique extending well beyond the cavity margin during the reaction time.

■ **Did you use different shades? If so, which?**
Began building up from the palatal aspect. Built up the “framework” in a thin layer using Opaque Dentine OD. Universal A3 was applied in the centre of the cavity, towards the mesial marginal ridge merging into Universal A2. Mixed Universal A2 and Incisal CL for completing the build-up in the incisal third. Tetric Color for the whitish opaque spots and to imitate the perikymata.

■ **Which technique did you prefer for fabricating the restoration?**
Framework technique and customised build-up of the increments in different shades. Before application and curing of the final layer of composite an extirpation needle was coated with the white stain of the Tetric Color system and spread horizontally over the composite.

■ **Do you have any further comments or remarks about your restoration?**
After contouring the marginal line angles and preparing the shape of the tooth with a SofLex disc from the tooth towards the composite, initial surface preparation was completed using a rubber polisher (Brownie). Prior to polishing, a rough diamond instrument (grit size red/green) was taken once over the labial surface in a horizontal direction applying minimal pressure to imitate the surface of the tooth and adapt it to the residual tooth structure and tooth 21. The pattern created was finally polished to a high lustre mainly in a horizontal direction using a polishing mop.



Antonio Ros Lluch
 Clínica Dental Ros
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 Spain

“Above all, I would like to emphasise the good handling of this composite.”



before



after

Indication: Composite veneers
Type of restoration: Class V
Age of the patient: 60
Composite: Venus Diamond
Bonding System: iBOND Total Etch
Polishing System: Venus Supra

■ **How did you proceed?**
 In that case with amelogenesis imperfecta and cervical erosions I first sandblasted the enamel surface with 50 micron aluminium-oxide. For the adhesion I used the etch&rinse System iBOND Total Etch. Finally I stratified the Venus Diamond composite.

■ **Did you use different shades?**
 The shade I selected was the Universal A3. As a first layer I placed Opaque OD in the cervical area as a dentine core. Universal A3 was stratified as an enamel layer. The incisal area was created by the Incisal CL.

■ **Which technique did you prefer for fabricating the restoration?**
 I used the layering technique.

■ **Do you have any further comments?**
 I like the easy placement to the tooth structure and the fact that this composite does not stick to dental instruments.



Dr. Philippe Papion

28 rue Anatole
76600 Le Havre
France

“The result is rapid
and the patient is quickly satisfied with the outcome.”



before



after

Indication: Redoing of 17-year-old restorations (shaping canines into lateral incisors)
Type of restoration: Class IV
Age of the patient: 45
Composite: Venus Diamond
Bonding System: iBOND Total Etch
Polishing System: Pop-on®

■ **How did you proceed?**
The patient is a 45-year-old woman who works in the medical sector. She presented with agenesis of the lateral incisors. Therefore she suffered from compromised aesthetics because the canines had taken the place of the lateral incisors. 17 years ago, I shaped the canines into lateral incisors using Durafill composite. The decision was taken to redo the restoration, due to the actual composite.
After removal of the old restorations we could appreciate the aesthetics of the central incisor/canine. The area was cleaned/reshaped by polishing with a diamond polisher before placing a rubber dam. The surface was etched for 30 seconds followed by application of iBOND Total Etch.

■ **Did you use different shades?**
Yes, I placed Universal A2 shade and also Incisal CL shade in stratification.

■ **Which technique did you prefer for fabricating the restoration?**
I used the stratification technique for this case and polymerised every single layer. I finished the case with “Pop-on” (3M Espe) and silicone cups (Komet).

■ **Do you have any further comments?**
In less than one hour it's possible to achieve a good aesthetic result, minimal invasively, without pain, and for a reasonable cost for the patient.



Delia van den Bosch
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“Excellent aesthetic result”



before



after

Indication: Trauma with exposure of the pulp, pulpotomy
Type of restoration: Class IV
Age of the patient: 15
Composite: Venus Diamond
Bonding System: Clearfil SE Bond (Kuraray)
Polishing System: Enhance Finishing Points (Dentsply),
 Occlu Brush (Kerr Hawe),
 Finishing strips (Epitex),
 Enamelize polishing paste (Cosmodent)

■ **How did you proceed?**
 The female patient presented for treatment after being in the intensive care unit for three days. There was an enamel-dentine fracture with exposure of the pulp. The tooth reacted positive to the sensitivity test (cold). The degree of mobility was 1. The pocket probing depths were 2 – 3 mm.
 First the tooth was anaesthetised. Then the damage to the pulp was treated by means of a pulpotomy, covered with Calxyl and overlaid with Ketac-bond (3M Espe). The fracture margins were bevelled using a diamond instrument, conditioned using 38% phosphoric acid and prepared using Clearfil SE Bond (Kuraray).
 I created the actual filling freehand by initially isolating the adjacent teeth using plastic strips and an interdental wedge. I then contoured the palatal wall using Universal A2 with the aid of a plastic strip (and my left index finger). I applied a layer of Opaque Dentine OM on this layer, which I again overlaid with Universal A2 and incorporated mamelons. The incisal edge was built up using the shade Incisal CL.

■ **Did you use different shades?**
 Universal A2
 Incisal CL
 Opaque Dentine OM

■ **Which technique did you prefer for fabricating the restoration?**
 Layering technique as mentioned previously.

■ **Do you have any further comments or remarks about your restoration?**
 It is important and independent of the excellent aesthetic result that the tooth is still vital after 4 months. If there had not been an acute emergency with exposure of the pulp, we could have produced ideal contours with the aid of a mock-up. This option is still open, however, as the patient, who is only 15 years of age, has yet to be provided with her final anterior tooth build-up.



Andrea Picone Davids

A. Picone Davids & Dr. H. Davids
Amelsbüener Str. 21
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Germany

“High-quality dental restoration with an outstanding aesthetic result”



before



after

Indication: Status after anterior tooth trauma and composite restoration of teeth 11 and 12

Type of restoration: Class IV

Age of the patient: 24

Composite: Venus Diamond

Bonding System: BOND XP (Dentsply)

Polishing System: Sof-lex discs (3M) and Identoflex composite polisher (Kerr)

■ **How did you proceed?**
Removed the old filling, bevelled the cavity margins, etched for 20s, isolated the teeth, applied and cured bonder, applied and cured composite (in increments)

■ **Did you use different shades?**
For tooth 11: Opaque Dentine OM
Universal A3.5, A3, A1, HKA2.5
For tooth 12: Opaque Dentine OM,
Universal A3, HKA2.5

■ **Which technique did you prefer for fabricating the restoration?**
The incremental technique built up freehand.

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BOND XP (Dentsply) Polishing System: Sof-lex discs (3M)
and Identoflex composite polisher (Kerr)