

CLINICAL

Confident, natural smile restored

Fredrik Wennerlund describes a composite layering technique to treat diastema

A 36-year-old male patient lacked confidence due to the discolouration of old composite on his upper central incisors. The restorations had been made to close a large diastema.

The treatment options were new composite restorations or ceramic veneers. The patient did not want to spend the amount of money that was required for veneers, so he decided to have the composite option. For 10 days prior to treatment, the patient undertook home bleaching of both the upper and lower arches.

Smile matrix

The first stage of the composite restoration process was the creation of a mock-up using Heraeus Provil putty, to make a trial smile matrix. This helped to determine the desired incisal edge position and the correct tooth shape. Each upper central incisor was sandblasted, etched, then bonded with Heraeus Ibond Total Etch and light-cured for 10 seconds.

A simplified layering technique, without preparation, was used. There was a horizontal graduation line through the patient's teeth, which made this case particularly difficult to match up. This was achieved by mixing the Heraeus Venus Pearl A1, C1 and CL (clear) shades. Each layer of composite was individually light cured.

Aesthetic advantage

To produce the ultimate restoration for more complex cases like this one, a combination of layers and shades is needed. The Venus Pearl layering technique gives a distinct aesthetic advantage. This composite has a firm consistency, with an extended working time under operating lights. It is colour stable and has good polishability. Venus Pearl has superb handling properties and does not stick to instruments, giving an improved sculpting efficiency. Like



Figure 1: The patient had a large diastema



Figure 2: The Venus Pearl layering technique gives a distinct aesthetic advantage



Figure 4: The patient is very satisfied and pleased with the final outcome, particularly as the midline papilla has developed to such a natural shape



Figure 5: Now the patient can smile again with confidence and his self-esteem has improved

its predecessors, it is a wonderful material to use.

Initially, in this case, a very thin layer of Venus Pearl CL was applied to the incisal area of the putty matrix. A tiny amount of Venus Pearl OLC (Opaque Light Chromatic) and shade A2 was added as a dentine layer. A further thin coating of the CL shade was applied, making the incisal edge a little bit longer. This was followed by the first layer of artificial dentine, using Venus Pearl shade A1. A final layer of a mix of Venus Pearl CL and shade A1 was applied, adapted and smoothed into an ideal anatomical contour with a sable brush.

Natural shape

The restorations were polished with Heraeus Venus Supra polishing kit and finished with a bristle brush coated in diamond polishing paste to achieve the reflectivity to the natural tooth. Because of the complexity of the line

running across the teeth, absolute perfection could not be achieved in this case. However, the end result is most definitely acceptable for a routine project.

The patient is very satisfied and pleased with the final outcome, particularly as the midline papilla has developed to such a natural shape. Most importantly, he thinks it looks natural. Now he can smile again with confidence and his self-esteem has improved. **DD**



Dr Fredrik Wennerlund DDS has a keen interest in aesthetic and cosmetic dentistry. He is an active member of the American Academy of Cosmetic Dentistry (AACD) and former president of the Swedish Academy of Cosmetic Dentistry (SACD). Having attended courses given by Newton Fahl and Douglas Terry, his work has reached significantly high levels. In 2010, Fredrik

was the winner of the worldwide Venus Diamond Master Competition. Originally from Sweden, Fredrik now practises in Schaan, Liechtenstein.