After the patient’s upper jaw has been fitted with a model cast prosthesis, it is desirable to make corresponding aesthetic corrections to the lower anteriors. For the patient, the cost-benefit relationship is of primary concern here. COMPONEER, a product newly launched by Coltène/Whaledent, makes cost-optimised treatment possible.

The following case involves the use of prefabricated Composite Veneers to do direct restoration work on lower anteriors with significant abrasion and fillings in need of repair (Fig. 1 + 2).

In order to match the colouring of the COMPONEER treatment as closely as possible to that of the restored area, colour selections are made at the very beginning, using the intact, discolouration-free ceramic restoration work as a guide. As the dentine is darker in colour than the dentine colours included in the kit, the corresponding SYNERGY D6 composite line’s comprehensive colour key is a useful aid. Dentine colour selection is followed by determining the appropriate enamel colour – here, Dentine A3.5 and a Universal Enamel have been chosen. By laying the enamel shell on top of the dentine core, the selected colours can be checked and it is easier to imagine the end results (Fig. 3). A rubber dam can now be placed over the lower anteriors.

Discolouration is removed using an air abrasion tool (Fig. 4), after which an appropriate COMPONEER is selected (here, Size M) using the Contour Guide (Fig. 5). In order to achieve an optimal end result, the insufficient, discoloured fillings are replaced with a suitable composite (SYNERGY D6 Dentine) (Fig. 6).

As with traditional veneer preparations, dental substance reduction is usually necessary in order to create enough space for COMPONEER (Fig. 7). However, preparations can be designed so as to taper supragingivally. To create a homogeneous surface effect, it is best to create sufficient space to ensure that the inner COMPONEER surfaces are covered with an even layer of the solid composite material. Before the selected COMPONEER is removed from the blister pack, the label on the back can be removed and archived in the patient’s file for documentation purposes (Fig. 8). If necessary (as here), a rough disc can be used to make form corrections to...
COMPONEER (Fig. 9). To ensure a precise fit, the individualised COMPONEER shells are placed onto the prepared tooth surfaces before being permanently fixed. At this point, it is still possible to make minor shape corrections by sanding.

For improved adhesion, tooth surfaces can be roughened using a sand blaster (50-micron aluminium oxide grains) before etching.

The teeth are then separated using plastic matrices. Interproximal contact points keep the matrix bands in place without trouble; for gapped teeth, the matrices can be affixed to lingual surfaces using composite (Flow) and held in the desired position. After separation, the tooth surfaces and the interior surfaces of the COMPONEER shells are conditioned. The microretentive interior surfaces make mechanical pre-treatment of the veneers unnecessary. Etchant Gel S is first applied and spread evenly, then sprayed off and dried after the prescribed application time has elapsed. After this, enamel and dentine areas as well as interior COMPONEER surfaces are pre-treated with "One Coat Bond," which displays exceptional wettability on the surfaces being treated (Figs. 10 + 11). The thin layer of Bond on the interior COMPONEER surfaces is not light-cured.

Highly viscous composite is then applied to the conditioned interior COMPONEER surfaces and distributed evenly (Fig. 12). The MBS modelling instrument is highly suitable for this purpose, as it has an exceptionally straight working end as well as a very thin, precise spatula end. The COMPONEER is held in place with a pincette and rested against a base during the application process. The composite can be applied to the tooth as well (Fig. 13).

The COMPONEER is now placed onto the appropriate tooth using light pressure, and a gentle lateral motion if necessary, and is finally positioned with the help of the Placer – a particularly innovative instrument (Fig. 14). In order to ensure proper axial alignment of the front teeth, it helps to place the two incisors simultaneously.

Only then is the excess composite trimmed away using the MBS modelling instrument. After checking the final position once more, the composite is lightcured (Fig. 15). SYNERGY D6 Composite Material allows sufficient time to position the COMPONEER. This makes it especially advantageous when treating lower teeth: immediately after the individual enamel shells have been fitted, occlusion can be checked and any necessary sanding can be done.

Once all COMPONEER have been applied, excesses are removed (wherever applicable), and the edges are finished using appropriate rotating instruments and ProxoShape files (Fig. 16) as well as flexible discs (Fig. 17). Finishing and polishing strips with progressively finer grain
sizes are available for approximal spaces (Fig. 18). Finishing and polishing are done with composite polishers and brushes using the established methods. Using COMPONEER in anterior restoration work makes it possible to achieve aesthetically attractive results in a reasonable amount of time (Figs. 20 + 21).

In COMPONEER, Coltène/Whaledent has provided dentists with a well-designed, easy-to-use direct veneering system which supplements and enriches our spectrum of treatment options in a practical way.

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Fig. 13: Application of SYNERGY D6 to the tooth.

Fig. 14: Positioning the COMPONEER using the Placer.

Fig. 15: Light-curing of lingual side.

Fig. 16: Finishing the edges (ProxoShape file).

Fig. 17: Polishing (SwissFlex polishing disc).

Fig. 18: Finishing in approximal area (SwissFlex polishing strips).

Fig. 19: Burnishing surfaces (Composhine Plus Polisher).

Fig. 20: End results with COMPONEER.

Fig. 21: Detail view of lower anteriors after treatment.