

G-aenial A'CHORD Simplified Unishade System (GC America)



Introduction

With the *G-aenial*® *A'CHORD* system, a natural final restoration can be obtained by following the shade guide provided in the kit to determine the patient's layering combination for enamel, core, and opaquing shades. This system is a simplified shade system, with only five core shades to replace 16 VITA shades and is highly esthetic.



The patients' shade guide for an invisible restoration



Fig. 1: Pre-treatment photo



Fig. 2: Caries removal and long bevel placed

Clinical Procedure, Case and Results

A 64 year-old patient presented with extreme wear on all of his anterior teeth on the linguals with caries in exposed dentin on tooth #9.

The patient's VITA shade was determined to be a D2; therefore, his formula, for a highly esthetic restoration that was nearly invisible, was the JE enamel shade, the AO2 opaquer, and the A2 core shade (which replaces A2, D2, C1, and D3 from the VITA shade guide).



Fig. 3: First layer placed to form an enamel shell utilizing a putty matrix



Fig. 4: Enamel shell formed using enamel shade JE

A putty matrix was fabricated prior to preparing the tooth. Caries was removed as well as undermined enamel. Long bevels were placed for a perfect blend into the enamel with a flame shaped carbide bur. The tooth was cleaned with *Consepsis* (Ultradent), and the enamel selectively etched with 37% phosphoric acid (Vista Dental). After rinsing the enamel and drying the preparation, *CLEARFIL Universal Bond Quick* (Kuraray Dental) was placed, air thinned, and light cured. The initial composite placement was a shell of the JE enamel on the lingual with the *Optrasculpt* (Ivoclar) composite instrument.



Fig. 5: Second layer placed with opaque shade AO2



Fig. 6: Third layer placed with core shade A2

From this shell a slight opaque layer, AO2, was placed, leaving a small amount of enamel shade along the incisal edge for translucency. The consistency of this material is very sculptable, making it easy to place the material exactly where it is wanted without slumping. The core shade, A2, was placed and it was immediately noted that it just seemed to disappear into the preparation as the shade matched perfectly.



Fig. 7: Final layer of enamel shade placed



Fig. 8: Final restoration

After the bulk of the preparation was filled with the core shade, a layer of the JE enamel shade was placed over the facial and connected to the lingual shell of enamel that was left exposed for a naturally translucent incisal edge. A light layer of wetting resin (Clinicians Choice) was used to smooth and blend on the felt pad side of the Optrasculpt instrument for an invisible margin. The final restoration was finished with a flame carbide bur, and *Soft-Lex* discs (3M). The final polish was placed achieved with *FlexiCups* (Cosmedent), a felt *FlexiBuff* (Cosmedent), and *Enamelize* (Cosmedent) polishing paste.

Conclusion

With this system, determining the perfect shade/layering combination is as easy as following a recipe. The simplified shade aspect makes it possible to still create natural, beautiful restorations for patients while only having to carry five core shades in the office, minimizing inventory significantly from having to carry 16 shades to cover the entire VITA spectrum. The *G-aenial A'CHORD* system makes layering for highly esthetic restorations easy and more predictable.