

Harmonize & OptiBond Universal

Harmonize and OptiBond Universal Clinical Case Studies - Posterior Restoration

Dr. Scott Coleman



Posterior composite restorations are the most common restorations that general practitioners provide. Depending on the location and aesthetic desire of the patient, it is routine in my practice today to use either a bulk-fill type material (SonicFill™ 2) or a layered type restorative material (Harmonize™ Universal composite).

Harmonize has been developed to meet both the needs of posterior composite demands and anterior esthetics all within the same material. In cases that need a high level of esthetics, such as blending with natural tooth structure, Harmonize is my go-to material. I am a big proponent of following the manufacturer's chemistry in placing any restorative material. Although there is a lot of cross-compatibility within certain groups of materials, I find that it is most

predictable when I stick with the same manufacturer's line of products. I can be confident that those products have been thoroughly tested to work specifically with each other. Mixing and matching different chemistries will probably work, but the products may not have been tested as such.

I have discovered that the detail of occlusal anatomy is a function of time and preference. I find it rewarding when I can replicate the natural shadings and anatomy of teeth. This includes the application of appropriate stains to mimic the natural age and conditions of the surrounding dentition. It has been my routine experience, however, that most patients do not share my opinion: they want a "new" filling that is white with no staining, regardless of how natural it looks.



Case 1

Case 1 presents a straight-forward single tooth amalgam replacement due to leaking of material margins leading to recurrent decay. (photo 1) After removal of the amalgam and decay, I selectively etched the enamel margins. I then applied OptiBond™ Universal and scrubbed it in for 20 seconds. I allowed the resin to air disperse before curing with the Demi™ Ultra curing light. (photo 2) Then I applied Herculite™ Ultra Flow to cover the pulpal floor and cured it. I used Harmonize dentin shade A-2 followed by enamel shade A-2 applied in a couple of layers, curing between each layer. To achieve the occlusal groove staining, I used Kolor+Plus™ brown stain, and finished with a ProGloss™ polishing point. (photo 3)



Case 2

Case 2 demonstrates a multi-tooth, multi-side restorative process. This is a case I typically would do using my computer-aided design and computer-aided manufacturing (CAD/CAM) system to create inlays-my preferred restorative choice. In this case, a financial decision was made to restore the case in composite. It is my practice to present treatment options to every patient with the pros and cons of each option, including the costs associated with each. This patient chose to restore these teeth with composite. After removing the existing amalgam and decay, I selectively etched the enamel, then applied OptiBond Universal, scrubbed for 20 seconds, air thinned until no movement of resin was noticed, and cured with the Demi Ultra curing light. I then applied Herculite Ultra Flow and cured for 30 seconds. A layer of Harmonize dentin C-3 was placed and cured. Several incremental layers of Harmonize enamel C-2 were placed and cured. In occlusal grooves, I used Kolor+Plus brown to aid in natural shading. The occlusion was adjusted with fluted carbides and ProGloss polishing points were used to finish. The first and second molars were restored first, and then a segmental matrix band was used to restore the occlusal distal of the bicuspid. Kolor+Plus brown. (I did this final step just to appease my own personal, professional preferences. I think it looks great; but most patients do not want any stain in their new fillings.) The occlusion was adjusted with fluted carbides and Pro-gloss polishing points were used to finish. The first and second molars were restored first, and then a segmental matrix band was used to restore the occlusal distal of the bicuspid.



About Dr. Scott Coleman



Dr. Coleman is a clinical adjunct professor at the University of Texas Health Science Center at Houston and has been practicing dentistry in Houston since graduating first in his class in 1984. He has lectured internationally on dental techniques and technology as well as publishing articles in numerous publications. He is an Eagle Scout and a licensed pilot and scuba diver.

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