The 50-year-old patient presented needing two prosthetics on teeth Nos. 10 and 11. She was extremely cautious about the color, shape and design of her teeth. Tooth No. 10 was endodontically treated with a very dark post which needed to be considered when choosing the coping color. She also had a difficult bite with tight occlusion. Her adjacent teeth presented with a large mamelon and clear opal translucency between the mesial and distal 1/3 areas. In addition, tooth No. 12 had a very large amalgam which produced an unappealing bluish color. In order to match the adjacent tooth color the technician could take one of two obvious approaches: mimic the central teeth or use a one body color which is 50% enamel, 50% dentin and comes in a pre-mixed formula. The author decided it would be best to try a different method and utilize one color of porcelain and then paint a Lustre Paste application over that porcelain layer to provide any necessary staining.

During her visit to the laboratory for her custom shading appointment, the color variations and transitions between her central and premolar teeth were discussed, as well as the size of her teeth, her prep color and the color she would choose for her restorations. She had a wish to change all of her anterior front teeth but money constraints would not allow her to do so at that time. The patient and author decided to make the restorations slightly lighter than the adjacent teeth in order to prepare for that future time/appointment.

CASE STUDY

Pre-fabricated ceramic shade tabs were used to match the patient’s prep color (Fig. 6) in order to allow for better material selection. It was decided to use a zirconia coping for the final restorations. The author chose the GC Initial Zr One Body Porcelain system in a “B” shade. This particular shade would cover anything in the 1, 2, 3 or 4 color ranges.

The build-up was applied in one color with no enamel layering (Figs. 3, 4). After firing at 810°C, the dentin layer had this appearance (Fig. 5).

The contacts and contour were then checked (Fig. 6) on the model. The staining tool he utilized, GC Lustre Paste, includes colors A, B, C and D ranges—pictured left to right (Fig. 7). Once he had the dentin layer established, the author began working with a neutral colored Lustre Paste stain (Fig. 8) to create a natural looking match with the patient’s dentition. He continued the process until he thought he had established a good representation of her adjacent teeth (Fig. 9) by creating a mandibular transverse incisal 1/3 using L3-L5 mixture. A mirrored image follows with appearance after glazing and baking at 810°C (Fig. 10). The author was very pleased with the final results and happily decided that they looked better than the ceramic shade tabs he had followed.

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CONCLUSION

This particular casework has been approached a little bit differently because the case outlines tricks the technician can use to easily and effectively match the patient’s natural dentition without using a multi-layering technique or mimicking a central. Instead, we used the clear, grey and blue colors shown in the staining kit, while still applying a light beige mamelon. Using the lustre paste externally, we can create a harmonious representation of a patient’s natural dentition and provide a very good match in the mouth. 

Case courtesy of Richard DelCarlo, DDS, private practice in Naper- ville, ILL.

Fig. J Mirrored image.
Fig. K Try-in in the mouth.
Fig. L Texture check No. 10.
Fig. M Texture, lobe and design check No. 11.
Fig. N Final try-in.
Fig. O Caption Caption.