“Having a vast array of colors to choose from is important because the underlying tooth color can affect the shade of the final restoration. For example, if the preparation is a dark shade between A3-C10, then the core of the material chosen must be an opaque pressable material to mask the underlying dark color. If the underlying tooth color falls between the standard Vita shade colors of A3-D4, we can use a common Vita shade. However, an advanced technician can still mask the underlying dark tooth color by using detailed color-masking techniques with modified porcelain powders.”

Advances in technology and processes have today’s dentists and dental technicians facing myriad options regarding the materials they should use to achieve the best results. Pressable materials are one of those technologies with numerous options. Ivoclar Vivadent’s pressable materials, Empress (1, 2 Eris), started the trend, but there are now many others: GC Pressable, Authentic, Luminesse, Carrara, Noritake, Cerpress, OPC and 3G, to name a few. The advantage of having these different materials available from different manufacturers is the variety of colors or shades available.

Having a vast array of colors to choose from is important because the underlying tooth color can affect the shade of the final restoration. For example, if the preparation is a dark shade between A3-C10, then the core of the material chosen must be an opaque pressable material to mask the underlying dark color. If the underlying tooth color falls between the standard Vita shade colors of A3-D4, we can use a common Vita shade. However, an advanced technician can still mask the underlying dark tooth color by using detailed color-masking techniques with modified porcelain powders.

Masking Tetracycline Stains

Luke S. Kahng

“Having a vast array of colors to choose from is important.”

Fig. 1. Initial view of #22-27: tetracycline staining and uneven shape.

Fig. 2. LSK treatment plan wax-up: The wax-up is crucial for aesthetic approval and, most importantly, testing functionality.

Fig. 3. Stent – made from LSK 121 wax-up for preparation guidance.

Fig. 4. Final preparations on the discolaration of the preparations.

Fig. 5. Compare the contour to the wax-up and check functionally.

Fig. 6. A putty matrix is made from the LSK 121 treatment plan wax-up. Here we check #25 facial, incisal, lingual contour before cut back.

Fig. 7. Start the cut-back to provide room for layering ceramics.

Fig. 8. A full contour wax-up allows us to check for adequate space.
Fig. 9. Check the room using the putty matrix.

Fig. 11. Final cut back of wax-ups checking the lingual and incisal with the putty matrix.

Fig. 13. Make sure the investment flows inside the coping to avoid bubbles.

Fig. 12. Copings are sprued and prepared for investing.

Fig. 14. Preseed copings seated and checked for room using the putty matrix.

Fig. 15. Checking the occlusal and buccal view of the premolar.

Fig. 16. Porcelain is applied the premolar.

Fig. 17. Emergence profile and curve of Wilson is checked.

Fig. 18. Stain has been applied to anterior copings.

Fig. 19. Stain has been applied to anterior copings.

Fig. 20. Copings after internal-stain firing.
TECHNIQUE

Fig. 21. Dentin with enamel effects for the base shade.

Fig. 22. Translucent enamel opal modifier applied.

Fig. 23. Segmentation with Clear Fluorescent Porcelain.

Fig. 24. Final layer of porcelain enamel.

Fig. 25. Determine incisal edge position.

Fig. 26. Check protective function.

Fig. 27. View of cuspid view.

Fig. 28. GC Initial PC.

Fig. 29. Photo taken immediately after cementation.

Fig. 30. Right lateral view.

CONCLUSION

The patient's dark tetracycline stains and crooked teeth were corrected with GC Pressable ceramics using the cutback technique. In order for technicians to create the best result, according to a patient's needs and wants, we must be knowledgeable and fully understand tooth morphology and select materials that will best get the job done.

CASE STUDY

A 52-year-old female patient had two complaints: dark tetracycline stains and crooked mandibular teeth 22-27. She wanted a smile makeover: brighter and straighter teeth. After thorough evaluation and discussions with the patient, the preparations were completed. But because the preparation of teeth 22-27 was minimal, more opacity was needed to mask the dark substructure underneath. After talking to the patient, I decided to use GC Pressable material to provide the desired result – blocking out the stained preparations. Photos of the preparations were taken, as were photos of the shade tabs to facilitate laboratory communication in shade mapping and stump shade.

“We must be knowledgeable and fully understand tooth morphology.”
Luke S. Kahng, CDT, is the founder and owner of Capital Dental Technology Laboratory, Inc. of Naperville, Illinois. His laboratory specializes in all-fixed restorations. Its division, LSK 121, provides highly personalized custom cosmetic work. Kahng developed the LSK 121 Treatment Plan that incorporates a wax-up technique that focuses upon a biomechanical design of occlusal surfaces for reconstructive and esthetic dentistry. He has also developed a series of shade conversion table for porcelain.

Kahng is the official clinician for GC America, Bisco, Captek and others. He is a frequent lecturer and program facilitator, and he regularly contributes to this and other technical and clinical journals including Practical Procedures & Aesthetic Dentistry, Contemporary Esthetics, QDT 2006 and Dental Collaborations.

He is master ceramist who has trained extensively Russell DeVreugd, CDT, Dr. Frank Spear and Dr. Peter Dawson. He is currently a member of American Academy of Cosmetic Dentistry.

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**Contact Address**

Luke S. Kahng, CDT,
Owner, LSK Division & Capital Dental Technology Laboratory, Inc.
952 McDowell Rd. Suite 303, Naperville, IL 60563
Tel: 630-355-6221 Fax: 630-355-6833
Email: luke@lsk121.com

**REFERENCES**


**PRODUCT LIST**

<table>
<thead>
<tr>
<th>Indication</th>
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<tr>
<td>Preservable ceramic</td>
<td>GC Initial</td>
<td>GC America</td>
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