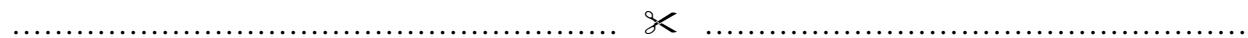


These instructions are provided free of charge by WhiteRock Dental Lab, Inc. They represent nearly the exact method employed to produce WhiteRock Precision Whitening Trays in our dental lab. Successful fabrication requires proper equipment, quality materials, attention to detail, time, and as with any precise technique, practice.

We find that many practitioners first attempt to make trays themselves, or to train an assistant, only to discover the time and resources required to produce a consistent product are greater than the expense of purchasing finished trays.

If, after trying to make these trays in your own lab, you would like to compare them to ours, we've included this voucher for one set of WhiteRock Precision Whitening Trays for you or a member of your staff. Simply cut out the voucher and send it and the accompanying prescription with your case.



Precision Whitening Tray

This voucher is valid for one (1) set of WhiteRock Precision Whitening Trays. An original printed copy of this voucher MUST be included with the case to receive the Trial Offer. Only one (1) voucher may be used per dental practitioner. Vouchers may not be redeemed for cash or applied to any other products or account balances.



5140 Charlestown Road 3B
New Albany, Indiana 47150
(866) 948-8898

VOUCHER



\$29

Trial Offer

Dentist: _____

Voucher #: **DentalTown – Instructions**

Voucher expires: 6/30/2008.

..... ✂

Terms & Conditions

Vouchers have no cash value, and may only be redeemed for (1) set of WhiteRock Precision Whitening trays, directly from WhiteRock Dental Lab, Inc in New Albany, Indiana.

Vouchers MUST be included with the accepted whitening tray case for which it is being redeemed, by the deadline indicated.

Vouchers may not be redeemed for cash or applied to any other products or account balances.

WhiteRock Dental Lab, Inc. makes no warranties, either expressed or implied, regarding the results of any procedure performed with this product. Term & Conditions of this offer may be modified without notice



5140 Charlestown Road, #3B
New Albany, IN 47150
www.whiterocksmiles.com

Prescription

812-948-8898
866-948-8898 Toll Free
866-612-2982 Fax

CONTACT INFORMATION

Date _____

Doctor _____

Contact _____

Address _____

City _____ State _____ Zip _____

Phone _____

Patient _____

Due Date _____

WHITEROCK BLEACHING TRAY

- Custom Fabricated Bleaching Tray
 - Precise Gingival Seal
 - Deep Gel Pockets
- Please send additional shipping envelopes and Rx forms.

NOTES

Signature _____ License # _____

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WhiteRockTM

D E N T A L L A B

Precision Whitening Tray Fabrication

Precision, cosmetic-grade whitening trays have two fundamental characteristics that differ from conventional whitening trays; a well-defined gingival seal, and a gel reservoir. The gingival seal acts to keep saliva from seeping in the tray and degrading the whitening solution, and to retain the maximum amount of gel in the tray over the maximum duration. The reservoir is designed to hold an adequate supply of gel against the facial area of the tooth. In concert, these two features will dramatically increase the results of any gel-based whitening system.

The instructions below are designed to provide a basic understanding and outline for the fabrication of precision whitening trays in a typical dental practice lab. Generally, specific brands of materials or equipment are not mentioned to avoid the implication of their importance.

The only difference between how WhiteRock Dental Lab fabricates cosmetic-grade trays and the description below is the industrial grade of the equipment used and the experience of the technicians. The best results are achieved with an acute attention to detail, and a focus on producing a clear, well-defined gingival seal and gel reservoir on each tooth.

Step #1.) Take an Impression with Clear Gingival Margins

The success of fabricating a precision, cosmetic-grade whitening tray begins with the impression. Any material or technique that produces an undistorted impression with clearly defined gingival margins along all teeth being whitened is acceptable. The clarity of the margin is absolutely critical to the success of the case.



Step #2.) Pour Model and Inspect for Clear Gingival Margin.

Without a clear, well-defined gingival margin, an adequate tray seal is not achievable. The effectiveness of the whitening material will be compromised, and results will be unpredictable.

Clear Gingival Margins

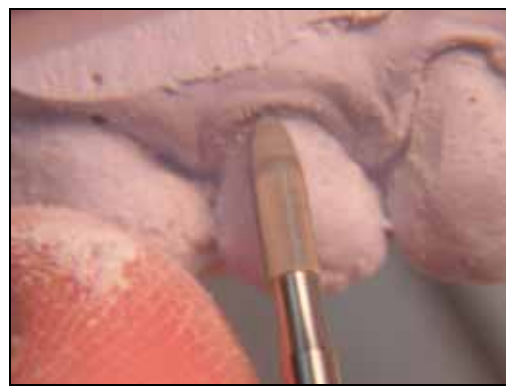


Not So Clear Gingival Margins



Step #3.) Define Margin with Knife or Bur

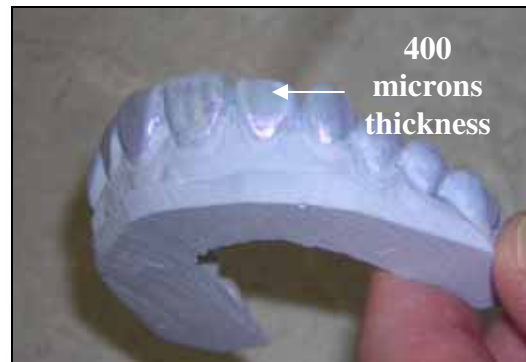
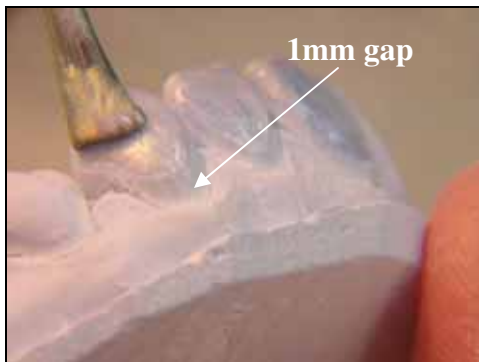
Using a sharp edge knife or a small, cross-cut, carbide bur remove any loose pieces of model stone or debris. Be extremely careful NOT to reshape the gingival margin or tooth contour.



Step #4.) Add Spacer to 400 Microns to Create Gel Reservoir

Any number of materials may be used to build up a gel reservoir, including die spacer. Four layers of die spacer will result in approximately **400 microns**, which is the minimum recommended. Some systems suggest using a slurry of stone material, however, it is difficult to achieve consistent thickness and control run-down.

The objective is to apply spacer to the entire facial area of the tooth, leaving a **1mm** gap at the gingival margin. This will become the primary part of the seal.



Step #5.) Coat the Model with Lubricating Spray

Spray the completed model with a food-grade silicon spray or other material that will ease removal once the tray material is formed onto the model (Dupont Teflon Silicon Spray, H-2 food grade approved si shown). Ensure that any material you choose:

- Does not alter or increase surface area.
- Is rated as "food grade"
- Does not interact with vinyl tray material.



Step #6.) Form the Tray

A typical, well functioning vacuum-former with a pressure dome is adequate to achieve results in most cases. However, if a high volume is anticipated, industrial-grade systems are available.

Follow manufacturers recommendations, for forming, and use:

EVA .040 Dual Laminate Tray Material



Step #7.) Apply External Pressure

An external pressure dome is available for most standard vacuum-forming machines. The external pressure assists in forcing pliable tray material into the areas that form the seal and gel reservoirs and providing the extreme detail required.



Step #8.) Carefully Remove Model/Tray and Inspect

Inspect for holes in the tray material. If holes are present, the material was allowed to get too hot prior to forming, or is too thin.

NOTE: Some systems suggest using a barrier around the model to direct vacuum "through" the stone. However, after extensive testing with a major stone manufacturer, it was determined that air does not pass through the stone at thicknesses greater than 2mm, and even then not in a volume sufficient to impact the formation of tray material in the minimal time before the material cools.



Step #9.) First Trim: Excess Material and Inspection

The first trim involves removing excess tray material and inspecting the trays for adequate seal definition. It is recommended NOT to trim up to the seal on a single attempt.

Trim up to, but not touching the outer edge of the seal. If solid gingival seals and gel reservoirs are not visible on every tooth, it is recommended that you reform the tray.



Step #10.) Second Trim: Removing Material Up to the Seals

Using precise, curved scissors, trim to the outer edge of each tooth seal in one direction, then reverse the tray and trim in the other direction, careful not to over-cut into the seals or beyond the gingival margin.

NOTE: Many styles and sizes of scissors are available. It is recommended that you experiment until you find one that is comfortable and controllable. Shown is Discus Dental Tray Trim Scissors #DB2546.



NOTE: Trim using 10x Magnification

Step #11.) Final Trim

The final trim is to remove any material at the edges that do not follow the gingival seal line exactly. Typically, this is material left over where the first two cuts intersected.



Step #12.) Finish the Seal

While not required, it is suggested to carefully smooth all edges along the seal with a low-speed brush. Typically, no material is removed, but any rough edges that might cause patient discomfort are removed (Scotch-Brite Brush, 1" fine, 5000rpm shown).



Step #13.) Check On Model for Fit

Check the tray on the model for fit. The seal should touch the gingival margin along the entire tissue line, and still be firm against the tooth. The tray should slip on and off the model firmly, without force.



Step #14.) Package and Protect Trays

Place the completed trays in a protective container, ensuring they fit loosely, and that there are no obstructions or deformities during storage. The tray material WILL permanently retain any changes in shape during storage.



The completed trays should exhibit a pronounced seal along the entire gingival margin and visible gel reservoirs on all teeth.



Clearly Defined
Gel Reservoir

Clearly Defined
Gingival Seal



These instructions are provided as a suggested protocol only.
No warranties are expressed or implied.