

# A Simple Approach Toward Minimizing Finishing and Maximizing Retentive Fit and Marginal Integrity of Castings

By

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As dental technical professionals, we are confronted daily with challenges and limitations which must be overcome to provide finished, high quality restorations. One of those challenges involves ensuring passive, controlled fit of castings with excellent marginal fit.

Many factors can exacerbate the problems, including undercuts, minimum space, shrinkage of wax, limitations of casting materials, and the need to 'clean, finish and polish' the final alloy pattern. This author has discovered the use of a simple-to-apply product developed by Dental Ventures of America, Inc., of Corona, California, to be extremely helpful in addressing many of these issues. The applications, use and results of this product, called *STRIPPER*, are reflected in the photos shown in this article.

The onlays and inlays shown on the case presented in Photos 1 and 2 display the finished castings on both the model and after cementation in-situ. Prior to investing, each of these castings were treated with liquid *STRIPPER* to eliminate any irregularities of the inner surface of the wax pattern and then

brushed on the outer areas of the pattern (as represented in Photo 3) to prepare a smooth, clean surface



Photo 1

minimizing the amount of grinding and finishing required to finalize the completed cast restoration. Naturally, minimal finishing resulted in minimal impact on the margins. After casting and sprue removal, all that was necessary was the 'touching' of the casting with a hard, micro-fine rubber tip. (Dark Brown, Hard, 2 mm Micro-Fine



Photo 2

Rubber Points from Dental Ventures of America, Inc.). All carved, functional occlusal anatomy was easily maintained with precise detail.

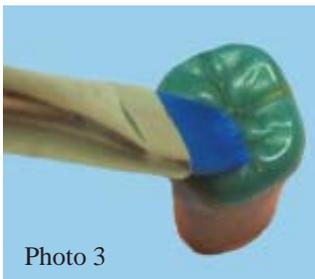


Photo 3

While our laboratory has tested several products designed to smooth wax surfaces, they have all shared a similar disadvantage: they add to the dimension of the pattern (much like a lacquer). DVA's *STRIPPER* is the only product of which we are aware that reduces, or strips-away wax. In so doing, it allows absolute control



Photo 4

of the passivity of fit, as well as the 'painting away' of any undercuts, wax shavings or other anomalies, as shown in Photo 4.

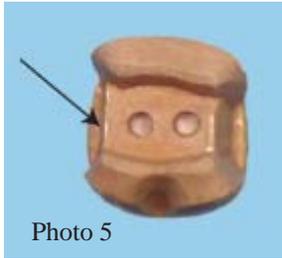


Photo 5

Utilizing this advantageous technique allowed the treatment of the undercut shown on the axial wall indicated by the arrow in Photo 5. A precise stripping application of the Dental Ventures product on the internal walls of the wax pattern simply eliminated the potential interference, and allowed a controlled, passive, but retentive fit of the casting. Resealing of the margins after treatment secured the establishment of excellent marginal adaptation (Photo 6).



Photo 6

Photo 7 shows the maintenance of all desired occlusal anatomy, after having modeled the smooth, finished contour desired.

To further demonstrate the possibilities inherent in this new, very effective product, the two photos below dramatically depict how a wax pattern with extreme carving marks can be quickly and easily transformed into a smooth, groove-free surface.



Photo 7



Photo 8



Photo 9

We have used DVA's *STRIPPER* to reduce post and core patterns to decrease the fitting difficulty offered by this type of restoration. In addition, our laboratory has found it very helpful to paint all of our sprue-forming patterns with *STRIPPER*, which appears to increase the efficiency of metal flow and enhances the homogeneity of our castings.

*Stripper* has proven itself to be an advantageous and inexpensive adjunct to simplify our daily challenge of providing restorations of precise fit and function.

*Mr. Boris Grunberg qualified as a Registered Dental Technician in Canada in 1974, and has been associated with the Dr. Richard V. Tucker Gold Castings Study Club for over twenty years. He has served on the supporting staff of the University of British Columbia Gold Casting Course for over eight years. His articles on model construction, waxing and casting techniques have been published in the Canadian Journal of Dental Technology and the Quintessence of Dental Technology. His intensive study of occlusion and precision dental technology techniques are ongoing.*

'Stripper' is available through Dental Ventures of America, Inc. (800) 228-6696 (951) 270-0606 or online at [www.dentalventures.com](http://www.dentalventures.com)