



BY TOM ZALESKE

wonderfill + wonderformers

Simple and effective

This time-saving model technique is an example of the way profound results can be realized with seemingly simple products.

Don't let its lack of sophistication fool you into believing this product has no value. That should be the "tag line" for a pair of products I stumbled across last year and started using in my removable prosthetic laboratory shortly afterward.

The products I am referring to are Dental Creations' Wonderfill and

its counterpart the Wonderformer (wonderfill.com).

Like most laboratories I am always looking for ways to remain accurate, save time and simplify techniques that are common and necessary to produce a quality end product. Conventional boxing and beading of impressions is a tedious

technique that must be performed to complement and maintain the clinical efforts to impress border depth and thickness (border mold), and transfer those dimensions to a master model. Inversion of the impression in this technique also ensures the stone poured into the boxed area is intimate to the impression by means of gravity.



The boxing system

Wonderfill features

- Reusable
- Non-staining to models
- Easy to use and fast to implement
- Cost effective to use

Wonderformer features

- Adjustable to accommodate varied impression sizes
- Durable latching mechanism
- Cut out access to accommodate tray handle

Combined benefits when used together

- Twenty-five (25) minute time savings over conventional boxing and beading method
- No wax, heat or flame
- Sticks to all impression materials
- Usable with orthodontic as well as restorative models



Fig. A Scaling up to produce multiple boxed models consumes minutes instead of hours.



Fig. B Pre-marking the depth of the sulcus to ensure adequate replication.



Fig. C The Wonderfill should be 1.5-2 inches thick and wider than the Wonderformer.

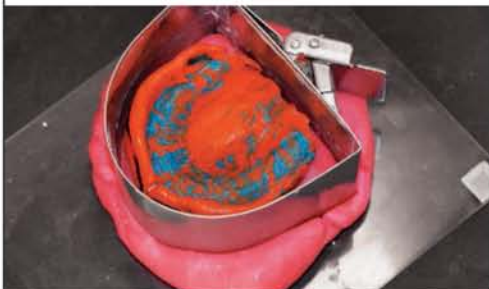


Fig. D Semi and totally unlatching the Wonderformer will provide for wider impressions.



Fig. E Use excess material to backfill.



Fig. F A brush handle is suitable to tamp Wonderfill into place...

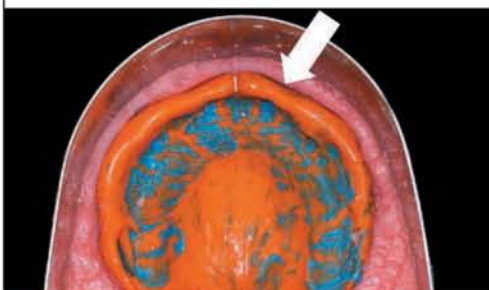


Fig. G ...ensuring adaptation to the impression, the Wonderformer, and controlling the junction of the land area to sulcus adaptation.



Fig. H After the model has been poured and allowed to harden, remove it from the Wonderformer...



Fig. I ...and pull off any excess Wonderfill for reuse.

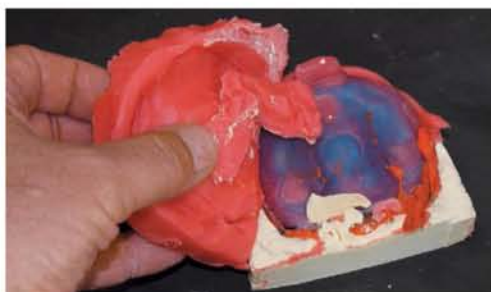


Fig. J Pick off any stone before returning Wonderfill to the container.



Fig. K Final trimming is accomplished with model trimmer to define model dimensions, and a razor knife to smooth land areas.



Fig. L Completed models reflect border definition and detail.



Fig. M The model should be 15-16 mm at its thinnest point.



Fig. N The width of the land area should be 3-4 mm.



Fig. O The uniform sulcus depth of 2-3 mm.

The common, time-intensive technique uses rope wax, sticky wax, and boxing wax to establish a land area, imitate sulcus, and a box to hold the stone pour together. The technique balances on the adhesion tenacity of the wax to the impression material, as well as the speed and dexterity of the technician in using and melting multiple waxes together to fabricate a “sealed” box into which lab stone is poured. Generally it takes about 20-30 minutes to prepare using the conventional wax method.

A SECOND LOOK

Over the years I had seen ads for the product Wonderfill but always thought of it as only tongue filler. While attending the 2011 FDLA Southern States Symposium, I noticed Dental Creations was offering free samples of Wonderfill to attendees. I remarked when handed the sample that the last time I used the product was with another sample I used to fill a tongue on a lower model. I mentioned it was a nice but rather one-dimensional product. At that point I was asked if I knew that boxing impressions in 5 minutes was possible when using a newer product, the Wonderformer, along with Wonderfill. Naturally, I said, “Tell me more.”

What I found was the real game changer for Wonderfill comes from a complementary product: the Wonderformer, which when used with Wonderfill becomes an accurate, cost effective, time saving “system” for fabricating boxed impressions. The form is a latching metal box or former which, when used like a cookie cutter along with Wonderfill, boxes an impression that is ready to pour in 5 minutes.

The benefits of boxing and beading impressions include:

- Replicates border molded areas of impression in shape and width
- Maintains border dimensions during flasking by providing uniform land area

- Ensures intimate adaptation and condensing of poured stone to impression
- Controls the base thickness of master models

Since realizing the accurate, cost effective, time and material savings of these products when used together, versus the time intensive conventional method, I have started boxing all the impressions in my lab—regardless if they are border molded or just for an opposing model—to take advantage of the esthetic and accuracy of pour aspects this technique and these products lend.

I also like having the ability to scale production of boxed models up or down without large consumption of hours in a day to do so (Fig. A). The conventional method for 11 models based on 25 minutes each is about 4 hours. The “Wonder” method for 11 models based on 5 minutes each is about 55 minutes.

THE TECHNIQUE

- 01 After sterilizing the impressions, mark the impression borders of 3-4 mm (Fig. B).
- 02 Make a patty of Wonderfill on a 5x5 plexi or similar approximately 1” thick and wider than form/10 oz.
- 03 Press the impression intaglio up into Wonderfill up to the marked borders with the ridge parallel to the floor (Fig. C).
- 04 Position the Wonderformer centered over impression and press down in a cookie cutter fashion (Fig. D).
- 05 Peel away excess material and use it to backfill any areas that may have pulled away from the sides of the impression or form (Fig. E).

06 Tamp the Wonderfill flat and up to the marked border line. I find a toothbrush handle works well for this (Figs. F and G).

07 Lift and place the entire base and form on a vibrator, fill with your stone of choice and allow to harden.

08 Once the stone is set, unlatch the Wonderformer, separate the Wonderformer and Wonderfill from the impression, and pull off any Wonderfill still adhering to the stone. Wonderfill will prevent full drying of the stone (land areas), so after removing Wonderfill then allow another 15 minutes for the model to cure. Use a model dryer for faster results. Practice Tip: Do not leave boxed and poured impressions made with Wonderfill longer than time for stone to set up and do not allow to stand overnight in the Wonderformer (Figs. H and I).

09 Pick off any adhering stone on the Wonderfill, return the remainder to its container and reseal (Fig. J).

10 Wash off any remaining Wonderfill on the model surface. It’s water soluble and non-staining making this simple to accomplish before trimming the models to width and thickness specifications using a trimmer and knife (Fig. K).

11 The completed model displays border definition and detail (Fig. L).

This technique makes it simple to create master models with proper dimensions including a width of 15-16 mm at its thinnest point, a land area width of 3-4 mm and a uniform 2-3 mm sulcus depth (Figs. M, N and O).

About the author

Tom Zaleske is the owner of Matrix Dental Laboratory in Crown Point, Ind., he has more than 25 years of experience in removable prosthodontics and regularly lectures on providing high quality service to dentists and most importantly to their patients. He can be reached at matrixdental@comcast.net.