SOAP in Your Bowl

By: Ernie Conover From: Woodcraft

A process discovered by Hawaiian woodturner Ron Kent often allows better turning of bowls from green wood. Specifically, soaking rough turned bowls in a simple solution of one-sixth concentrated dishwashing detergent greatly aids in turning, reducing tear out from the tools and greatly reducing checking in the final drying.

The soap process does not really use soap at all: instead dish detergent is what works, but 'detergent bowls' does not sound as cool. The detergent process is the subject of much discussion among Internet groups and was the subject of an article in the Spring 2002 issue of the American Association of Woodturner's Journal by Ron Kent and Phil Wall. (AAW is a worthwhile organization for anyone interested in woodturning. Their Journal, which comes four times a year, is worth the price of admission. To learn more go to www.woodturner.org/. To read Ron's interesting description of how he discovered the process please go to his website at www.ronkent.com/ and click on the "Techniques" tab.

The process is simple, and starts by following general green wood tuning practices. You rough turn a bowl from green wood. A rule of thumb is to leave a wall of uniform thickness that is one-tenth the diameter of the bowl. (A ten-inch diameter bowl would have a one-inch wall.) Next, immerse the rough turned blank in a solution of one-sixth concentrated dishwashing detergent. The detergent must be the kind you use to wash dishes in a sink, not the kind you put in automatic dishwashers. Dawn and Joy are popular brands, available almost everywhere. At Conover Workshops we have dedicated a large garbage can to the process, which we purchased along with several gallons of detergent at Sam's Club. Mixing was simple: pour a gallon of detergent into six gallons of water. We then throw our rough turned blanks into the solution for as long as possible. While over night works wonders, a more sensible minimum of three days gives the optimum results. Ron Kent keeps the solution in a spray bottle for application during turning, which means things won't dry up on you as you work.

After soaking you have two options. One is to finish turn the bowl to a thinner wall. The detergent makes the final turning go much easier, with much less tear out in the end grain. There is also an improvement in sanding, with less clogging of the sandpaper. Once off the lathe the bowl dries oval over a period of weeks. We have always recommended the application of an oil finish while still on the lathe to minimize checking in the end grain areas. The soap seems to further reduce checking to the point where it is practically nonexistent in clear wood.

The second option is to allow the rough turned blank to air dry before re-turning. We have always recommend wrapping in newspaper to slow moisture loss, or waxing, to reduce end grain checking. The traditional drying time after rough turning is three months. With blanks soaked in detergent we've found the time to air dry is greatly reduced and checking becomes nonexistent—even without wrapping in paper or waxing. Drying time has been reduced from three months to several weeks. We can only conclude that the detergent is accelerating the water transfer across the cell membranes.

There have been many claims, both in the AAW Journal article and on the Internet, of a reduction in warping during drying. From the beginning I have felt that this seems to fly in the face of wood technology. The claims were all from people doing spindle turned bowls (the grain runs between the centers of the lathe). Because of the grain orientation there is very little discernible warping in spindle turned bowls anyway. Conventionally bowls are faceplate turned (the grain runs across the centers of the lathe).

Upon reading the article in the AAW Journal, I set out to test the idea. We integrated the process into out turning classes here at Conover Workshops and tried the process on American beech, maple and cherry. While the latter two woods have a favorable radial to tangential shrinkage ratios, beech has one of the worst in North America, so we had a good test control subject. We have now tried the process on enough faceplate turned bowls to say that there is no change in the ultimate warping of the wood. What is gained by the process, however, is quicker drying with less checking and far less tear out in end grain by the tools. On dry wood, sanding is marvelous with no clogging and faster sanding through the grades. There is some debate on the Internet as to changes in color of the wood by the process. So far we have found no change in color or how the wood accepts its final finish.

All in all, the entire staff at Conover Workshops have found value in the process and have now integrated it into our turning curriculum. I urge you to try it yourself—and if you learn anything new please share it with all of us. Likewise, Ron Kent would be pleased to receive your thoughts. Both Ron and I hope that people will rave over their soapy bowls. But, remember, flattery is soft soap and soft soap is 90% lye.