

Lacquer-Dipping Finish

By Billy Burt (aka Alamocdc)

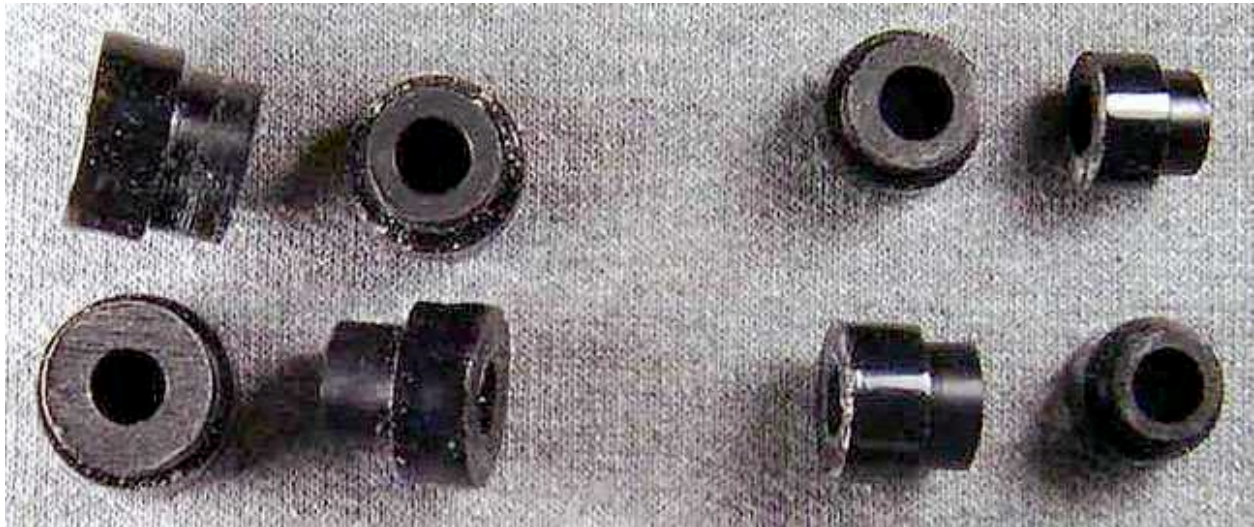
I've been questioned about my technique for dipping barrels in lacquer. First, this is not my technique. I got it from Russ Fairfield's pages. In short, I bought a few 3' lengths of 1/4" allthread and cut them to desired lengths... depending on the pens I turn. Make sure to add a few inches for insurance. When I first started this I also bought a number of different 1/4" fixtures: threaded inserts, nylon bushings, etc. to try and get a variety of widths to match the OD of the barrels being dipped. These are to be used as bushings/spacers above and below the barrels to allow the lacquer to flow smoothly down the assembly while it's drying. I now use pieces of Delrin (and other materials) turned step-wise to match the ID and OD of the finished barrels. I'll talk more about these a little later. Non-step, or straight, bushings will work just as well, but the step works better for keeping the lacquer out of the tubes on larger pens. Below is an Afzelia Burl Sierra barrel w/the first coat. The bushings in this photo are not step bushings.



The “brass screw” looking part is a threaded insert, and yes it's covered with lacquer that drained into the hole that it was standing in. I drilled holes in a 2x4 that these threaded inserts will slide nicely into. You could use a 1/4” nut and drill a smaller hole, but I like being able to use a screw driver to unscrew the insert in case it gets stuck. After assembling the barrel and bushings, snug the nut down for either side. Aside from 1/4” nuts, I use just about anything with the same threads, like long hexagonal threaded collars to nuts (usually just what I have available). This one just happened to be a nut.

The step bushings can be turned using Delrin and even a short piece of 7mm tube glued into a variety of scraps. I prefer to use Delrin, or Teflon since the lacquer won't stick to it. Make sure the transition from the barrels to the spacers is as flush as possible. Otherwise you'll get a lip or bulge of lacquer at the bottom of each barrel. You can see such a bulge at the outside edge of the Delrin bushings shown above. The Delrin bushings have 1/4" holes drilled through them so I

can mount them on the mandrel to turn them. Then I put them in the barrels and run the allthread through them. NOTE: If I'm using bushings other than those I've turned with a step and I'm not satisfied with the fit at the ends, I'll seal the tubes w/base plate wax. This is a last minute fix only and is not preferred for anything that will be repeated down in the future.



I've read where some prefer to thin their lacquer by as much as 25%. I've not found the need for this personally, but if you feel the need to thin your lacquer, by all means do so. First, gently stir the lacquer and try to avoid creating bubbles. The rest is simple. All you do is dip the barrel/bushing assembly (allthread included) in the can of lacquer. I use the one quart size, but one gallon cans would work as well. My first quart made it through dozens of pens so this technique doesn't really use that much. Let as much of the excess drain/drip back into the can as possible to avoid waste and the mess. Failure to do so could result in lacquer on surfaces you would rather it had not found. Now it's time to set them up to dry and cure. As mentioned above, a 2x4 with holes drilled in it to accept the threaded insert works great for this. After at least one hour, I'll dip the barrels again. If I'm happy w/the look of the second coat, I'll let the blanks cure for at least a week before wet sanding w/MM (starting at 3200) and applying Ren Wax, or TSW. It should be noted that two coats is the exception, but very dense woods don't usually need more than two. My rule of thumb is more often four just because I like the added depth. For anything with even the slightest hint of open grain I will dip at least four times, but I always try to apply at least two coats of CA, or Deft Sanding Sealer before removing the blank from the lathe. Even though lacquer dries quickly gravity can be your enemy. Before the 3rd and 4th dip take the barrel/bushing assemblies off and flip them so that the thickness of the draining lacquer will be more evenly distributed. If you don't, the result will be barrels with more lacquer on the downward end of the barrels. It's not so much that you can see it with the naked eye, but you'll be able to tell after MMing. I've actually taken the finish back to wood by not doing this and using less than 3 coats. This means starting over.

This should be simple enough that all can understand. BTW, make sure you keep the barrels perpendicular to the earth's surface while drying. Remember the gravity thing? It causes things not in the solid state to accumulate on the "low" side. The result would be a once concentric barrel that no longer is. Have fun, and play around a little. I think you'll be happy with the result.