

CA FINISH

By Gregory N. Wilson

- 1) First sand wood to the desired grit. Depending on the wood, I usually stop somewhere around 600, but often times go to 4000 (Micromesh) as well. Since some woods have more chatoyance than others, for those woods I sand to a higher grit to show the chatoyance.
- 2) Apply a 'sealing' coat of thin CA. This is simply a thin, saturating coat of thin CA over the entire blank. If your lathe will go slow enough, it can be applied with the lathe running. Use a piece of doubled-up wax paper underneath the blank. I use "Starbond" thin CA, which comes with microtips (the tips are very important to controlling the amount of thin CA applied, especially with later coats.)
- 3) Depending on the type of wood, you may or may not clean the wood before you apply the first coat of thin CA. If it is an oily wood, clean with denatured alcohol, using a paper towel. Be sure to let the wood dry completely before applying the CA. I like to clean with the lathe on, which helps keep the alcohol from penetrating as deeply, because of the centrifugal force.
- 4) With the lathe running slowly, apply a second coat of thin CA, again with the wax paper held underneath to help spread the CA. Be sure the wax paper is clean, without anything on it to get the smoothest application.
- 5) Spray with MILD CA accelerant, or let dry on its own. Again, use the lathe at its slowest speed; otherwise you might get what I call a 'porcupine pen'.
- 6) Look for any whitening of the CA after it is cured. If it has whitened (not simply dried unevenly), take a small skew, or scraper, and with the lathe running, remove enough of the CA to remove the whitened area. Clean with alcohol, allow to dry, and if bare wood is exposed, apply a sealing coat of thin CA to that area, followed up with another thin layer of thin CA.
- 7) Apply a thin layer of thick CA, again using the wax paper to spread it. Allow it to dry or use mild accelerator.
- 8) Inspect your blank for areas the glue may not have filled in. If there are too many areas, then apply another thin coat of thick CA. Seldom should you apply more than 2 layers of thick CA. If the CA finish is too thick, it can crack just like glass if the pen is subjected to a sharp blow, such as dropping it on a hard floor.
- 9) After the thick CA coat(s), the pen will probably have somewhat of an 'orange peel' look. Apply one final thin layer of thin CA. This helps to level out the orange peel appearance.

- 10) With the lathe running, take a small skew or scraper, and lightly smooth out the surface. I watch the reflection of the lights on the blank, as well as the cuttings. The reflection helps me detect when I've removed most of the unevenness. Also, watch the cuttings, at the tool, so you can tell if you have cut into the wood. If you do, simply repeat the steps above to get that area leveled back to the other levels. Remove about 90% of the 'glossy' areas. Further, you can feel when the blank is smooth both with your fingers and with the tool, as the tool will stop vibrating when cutting.
- 11) With the lathe running, with the very tip of the skew and the skew held flat, lightly remove the CA from the bushing, adjacent to the blank.
- 12) After the surface is smoothed from the skew / scraper, with the lathe off, sand at either 400 or 600, horizontally. Use light pressure. Sand until virtually all of the glossy areas are removed.
- 13) Still with lathe off, sand through the following: 400 (if needed), 600, 1800, 2400, 3200, 3600, and 4000. Grits above 600 are Micromesh. **
- 14) Inspect for any areas where the bare wood is exposed after each grit. If you look carefully, the CA sanding dust will accumulate on the bare wood more than on the CA coats. If any bare wood is seen, repeat the steps above, beginning with #2.
- 15) Once you are satisfied that you have a smooth, even coat of polished CA, remove the pen and mandrel assembly from the lathe. With the mandrel assembly held at about a 60 to 75-degree angle to a buffing wheel, buff the pen blanks with Tripoli and then the White Diamond. Use the wax wheel if desired. I personally use the Beall buffing wheels, but there are other brands available.
- 16) Inspect the pen after buffing to look for 'cloudy' areas by using a light reflection. For example I can see two separate reflections on my pens, from the two fluorescent bulbs in my light fixture above my lathe. If there is a problem on the blank, these two reflections blur.
- 17) Once you are satisfied with the final finish, remove the blanks from the mandrel. Check to see if there is any roughness at the very end of the blank. If so, lightly press the blank down squarely on 400 grit sandpaper, and twist it. This will sand off the unevenness, allowing the pen fittings to snug up properly without chipping away any CA finish.

*Note: other items can be used to spread the thin CA - a small plastic bag such as one of those pen parts come in, even a piece of foam shipping 'popcorn'. I use wax paper, cut into strips about 1.5" x 3", so they are 1.5" x 1.5" when doubled over.

**If you don't have a buffing wheel, sand through 12,000 with the Micromesh at step #13, then move to step #16.