

CA Finish for Pens ... One man's opinion **by Don Ward**

I recently wrote an article for a woodturning club's newsletter in the UK on how I apply CA to finish my pens. I use CA and boiled linseed oil in what is often called the CA/BLO finish. I have finally settled in to what works best for me. It may work for you or you may need to tweak it to make it work for you. I've tried all of the applicators that have been suggested and paper towels work best for me. I will even say I've tried the most popular brands among penturners and plain white Bounty is my applicator towel of choice. What follows is the part of the article that explains how I apply CA in conjunction with BLO for attaining what I consider to be the best finish I've tried. I hope it helps if you are struggling with CA as a finish or if you've been considering using CA as a finish for your pens.

I will not try to outline a sanding regimen because we each have our own preferences. I do sand with normal sandpaper to 600 grit then change to a cushioned abrasive product called micromesh (<http://www.sisweb.com/micromesh/>). Grits are available from 1500 to 12000 and I use 1500, 1800, 2400, 3200, 3600, 4000, 6000, 8000, 12000. After any sanding I stop the lathe and sand lengthwise and clean the pen blanks with denatured alcohol.

Now, the reason for this article. I will attempt to outline my technique for applying a CA/BLO (cyanoacrylate glue and boiled linseed oil) finish for pens. First, I sand the pen with 180 grit sandpaper and apply a sanding sealer. I use Myland's Cellulose Sanding Sealer. Any good quality, fast drying sanding sealer should work fine. Thin CA is sometimes used as a sealer. If the wood has open grain then I catch sanding dust on the sandpaper and use the dust to make slurry with CA. This slurry is used to coat the pen and fill the open grain. This layer of thin CA is sanded off, leaving the dust/CA slurry in the grain as filler. The dust is collected on the sandpaper underneath the pen. Thin CA is drizzled on and allowed to mix with the dust forming the slurry. Do this for the entire length of the pen. Use a scraper or sand paper to remove the CA layer back to the wood. I then sand 180-600 and 1500-12000 micromesh. I micro mesh all wooden pens prior to applying the CA/BLO finish. After the final sanding and just prior to beginning the CA application, I clean each wood blank with a cloth dampened with denatured alcohol.

Here is my basic CA/BLO finish application for pens:

1) Lathe speed: slow. Using a small piece of paper towel folded several times, put on light coat of BLO ..I use 3 drops for the entire pen. I apply the finish at a much faster lathe speed now than I did when I first started learning.

(note: if you use too much oil the CA will gunk up and not be nice and smooth or the finish will appear to have some ghosting spots, like maybe the CA is not stuck to the wood)

2) Hold the paper towel applicator from step 1, used to apply the BLO, on the bottom side of blank Starting with the paper towel and CA bottle on same end of pen, add a thin layer of medium CA on top of blank as its spinning while moving the CA and towel pad from one end to the other - one pass only...then add light pressure with the paper towel on the blank, constantly moving side-to-side until the CA is dry and the surface of the pen is smooth and slick...the CA will heat up some...repeat process for second blank.. Keep the paper towel moving and the CA will cure to a bright shiny coating. After some practice you will be able to determine how long to keep the applicator on the blank and moving. I think many who try this remove the applicator too soon and hence the high failure rate and frustration. Now, do the same to the other half of the pen. (the heat is from the CA curing, not the friction applied by the paper towel applicator)

3) I sometimes lightly sand between the CA layers, but most of the time I don't...you will learn to tell when you should. I use very fine sandpaper (600 or 1000) or the 1500MM sheet

4) Repeat step two...I do three coats of CA/BLO and sometimes four.

5) After final CA/BLO application I sand with Micro Mesh 1500 to 12000.

6) After sanding with MM I buff with white diamond and HUT Ultra Gloss Plastic Polish

7) Some use a scratch and swirl remover auto polish instead the HUT Ultra Gloss Plastic Polish.

McGuire's auto scratch and swirl remover is one that is popular. I don't use this myself.

8) As a final treatment, Renaissance Wax is one choice for a topcoat. Ren Wax is not so much a finish as a protectant. I did not like the oily feel that Renaissance Wax had and after using a few times I set it aside and it finally dried up. But, I have started using a product developed by another pen turner called Trade Secret for Wood, or TSW. TSW has become my topcoat of choice. It is a wonderful product and a great final dressing for pens. It has a build up

quality that allows it to fill micro scratches and gives the pen a wonderful smooth and glossy final look. I use it on every pen I make. TSW is applied with a soft cloth, allowed to dry to a haze, and buffed off with a soft, clean, and dry cloth. I have used TSW over CA, lacquer, and Enduro and it works great. A wonderful product.

That's how its done and the result is a great durable finish for pens. After using this finish for 3 years now, I get such a great looking finish after the final CA/BLO application that I have stopped the sanding after the CA application and go straight to the buffing step. This has come with practice and continual tweaking of the application process to develop my own technique. I have begun to apply the CA to the paper towel applicator and then apply the CA to the spinning pen, but I think learning as I have outlined may produce quicker successful results. Deviations can be developed as you become comfortable with the CA/BLO finishing process. Happy finishing...and, OH YEA, keep a can of acetone close by.

Spanish Oak Burl



Mesquite Burl Cigars



Figure 1: Left half of blank is after sanding and right half is after sanding and an application of WATCO Danish Oil...medium walnut. The wood is mesquite burl.



Figure 2: Collecting sanding dust with 180 grit to use for the CA slurry as a sealer. This step could be omitted and a sanding sealer used. The slurry works exceptionally well for open grain woods.



Figure 3: Addition of CA to the sanding dust to form the slurry ... moving from one end to the other mixing the dust and CA.



Figure 4: The blank as it looks after CA slurry and prior to the removal of the excess slurry.



Figure 5: Removal of the excess slurry with round nose scraper or the tool of your choice.



Figure 6: Applying the boiled linseed oil...3 drops...too much oil can lead to failure...A common cause of failure, blotches, ghosting, globbing, and other failure words used to describe CA when it does not work.



Figure 7: Applying the CA from the bottle. The same applicator pad used for the oil is used for the CA. It is on the bottom of the blank and the CA bottle is on top. Move from one side to the other applying a bead of CA...One pass only is enough CA.



Figure 8: Keep the applicator pad moving ... you will be able to tell when to stop...the CA will smooth out and will feel slick and glassy... Keep 'er moving...another place for failure...removing the pad too soon.



There is no Figure 9:

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Cellulose in some cloths and paper towels act as mild accelerators and may change the amount of working time before curing. I think different brands have varying amounts of cellulose. Some accelerator brands work differently with different CA brands.

Figure 10: Apply white diamond buffing compound by touching the stick to the blank while blank is spinning. This could also be done on a buffing wheel. When buffing on a buffing wheel, I remove the mandrel with pen still mounted, move to the buffing wheel and buff. Sanding with MM would be done here prior to using the white diamond, but I've omitted the MM on my CA finishing. I used MM when I first started doing CA finishes, and noticed some time later that the CA looked great after the final coat so I've stopped using MM on the CA. This may or may not work for you. I know of one other person who also does not use MM after the final CA coat. There may be more.



Figure 11: Buffing the white diamond using a clean, soft, dry cloth. This is a rag from a box of rags purchased at the paint store...it is cotton T-shirt material.



Figure 12: Application of HUT Ultra Gloss Plastic Polish. Apply on lathe and buff with a soft, dry, clean cloth. Other brands of plastic polish could be used. Some penturners use scratch and swirl remover auto polish.



Figure 13: A top coat of TSW is applied, left to dry to a haze (just a couple of minutes) and buffed with a soft, clean, dry cloth.



There is no figure 14

OTHER APPLICATOR MATERIALS

Viva paper towels, blue paper shop towels, unwashed terry cloth, veluer, synthetic batting material, plastic baggies that our kits come in, latex or nitrile gloves: There may be others...I tried them all and use what works for me. Others may find their applicator material of choice. If you are having problems, change applicator material.

Figure 15: The end results and it was well worth the learning curve, which was steep for me.



NOTES

1. I would like to thank Greg Wilson for answering numerous emails and helping me learn how to get the finish to work for me. Thanks Greg!
2. My learning curve was steep. I abandoned the finish a few times but kept trying and one day it just all clicked together.
3. I have had some problems with certain woods and CA. African Blackwood is one and I have not successfully finished A.B. with CA, but I keep trying.
4. Some CA brands seem to work better for me than others. I would suggest that once you learn how to apply CA that you stay with the same brand. Otherwise, you may need to learn how the new brand behaves.
5. CA does become old. I have stopped buying the larger bottles from some of the group buys...Although I use a lot, the 16 bottle last me forever and gets old and acts strangely after a few months. I buy 4 and 8 oz bottles from a local hobby shop.
6. Bounty paper towels are not the only applicator material. They work for me. Other materials may work for you