

## **CA Finish for Pens ... How I do it.**

**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 shinny 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 or four coats of CA using boiled linseed oil on each application.

**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. Renaissance Wax is not so much a finish as a protective coating. I did not like the oily feel that Renaissance Wax had and after using a few times I set it aside. 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. It is currently unavailable but I really hope it is back on the market soon.

That's how it's 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.

**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.



**Figure3:** Addition of CA to the sanding dust to form the slurry ... moving from one end to the other end mixing the dust and CA.



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



**Figure 5:** Remove the excess slurry with around nose scraper, and then sand. Use your regular sanding routine.



**Figure 6:** Applying the boiled linseed oil...3 drops...too much oil can lead to failure...A common cause of failure, blotches, ghosting, and globing. The amount of oil may need to be adjusted for your shop conditions. Three drops is not an absolute, but works for me.



**Figure 7:** Applying the CA from the bottle. The paper towel oil applicator is underneath 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:

**Figure 10:** Sand with MM and buff. Buffing can be done on a buffing wheel or on the lathe. I sometimes remove the mandrel with pen still mounted, move to the buffing wheel and buff. Other times I buff on the lathe using a soft cloth. Often the CA finish comes out excellent and buffing does not really improve the final finish. If the finish looks the way I want, I often omit buffing. When I buff (on lathe or buffing wheels) I use Tripoli and white diamond. I apply the buffing compound directly to the blank and use a soft cloth if I buff on the lathe. I charge the wheels if I buff on a buffer.



**Figure 11:** Buffing the white diamond with 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 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

**Figure 15:** The end results and it was worth learning how to apply CA as a finish for pens.





Figure 12: Application of HUT Ultra Gloss Plastic Polish...Apply on lathe and buff with a clean, soft, dry cloth. Any plastic polish could be used as well a scratch and swirl remover automobile polish.