Native Pens

CA Finishing Process

The method to follow shows the process Native Pens uses to create a high gloss CA finish. There are many different methods used in Pen making all using CA that can produce many different finishes. Native Pens has developed the method described here to give a reliable, hard wearing and long lasting finish that shows off the grain of the timber in fine detail.

Things to be aware of.
Native Pens uses small cotton rags for applying the CA. These rags are folded over so there are 3-4 layers of cotton. CA does react with cotton and they do become hot to the touch quite quickly. All the processes described here for applying CA are very quick in practice, literally no more than a few seconds between putting the CA on the rag and applying it to the pen. Thus the rags should be discarded immediately after a step is completed. Remember; CA is a fast curing adhesive!

When first learning this process it is recommended that you wear thin latex gloves to avoid getting CA on your skin or getting stuck to rags.

Required Accessories.

Thin CA adhesive
Small cotton rags
Native Pens SuperFine Polishing Paste
Mirco-Mesh polishing Pads

Completing Sanding

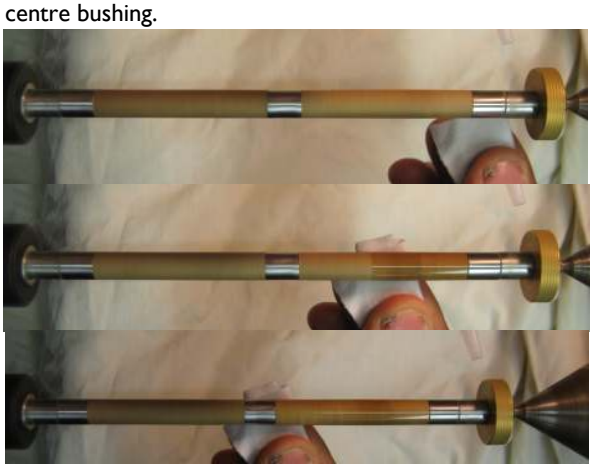
1. Once sanding is complete the pen is ready for the CA finish to be applied. It is recommended that the raw timber is sanded through all the grits down to 600grit at the least, and then the timber should be rubbed with "0000" wire wool.

Sealing the Timber

The method of CA application in this first stage helps to ensure the pen does not end up with a dark line around it from the initial coat, and that the timber surface is well sealed.

1. Start the lathe and set to a speed of about 2000rpm. Then apply 6-7 drops of thin CA to a small folded cotton rag.

2. Starting from an end bushing, rub the rag on the bushing before carefully moving it along the blank maintaining an even pressure and speed, ensuring the CA wets the blanks over the entire length. Stop at the centre bushing.



3. While the CA is still wet rub the rag backwards and forwards along the blank 2 or 3 times to ensure it gets a good soaking and an even cover.

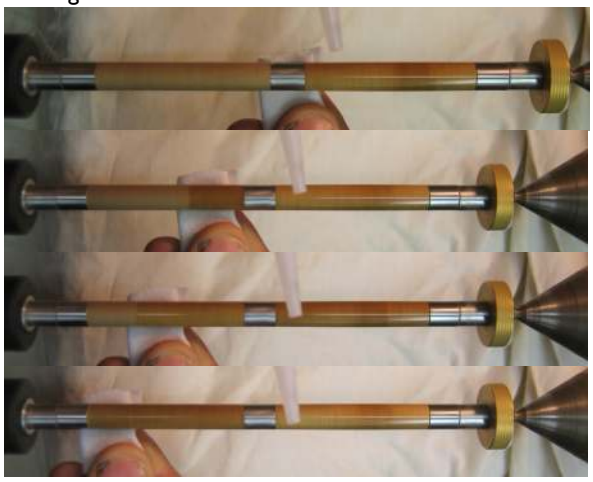
4. Discard the cotton before doing the next blank.

Native Pens

CA Finishing Process

5. With a new piece of folded cotton, repeat the process on the second blank. Apply 6-7 drops of thin CA to the rag.

6. From the centre bushing, start rubbing the rag on the bushing before carefully moving it along the blank maintaining an even pressure and speed, ensuring the CA wets the blank along it's entire length. Stop at the end bushing.



7. Again, while the CA is still wet rub the rag backwards and forwards along the blank 2 or 3 times to ensure it gets a good soaking and an even cover.

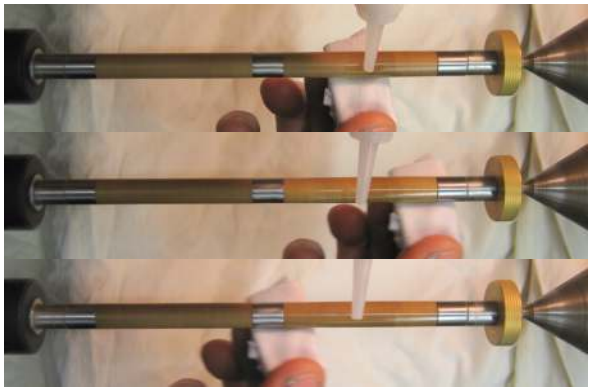
Applying the build up coats.

The next stage is to apply 10-15 build up coats of CA. These are done one on top of the previous with no sanding between coats.

The final number of coats is somewhat dependant on the timber. Typically harder woods will need fewer coats. When starting out it pays to apply the full 15 coats until you get to know the timbers and can then reduce the number of coats to achieve the same level of finish.

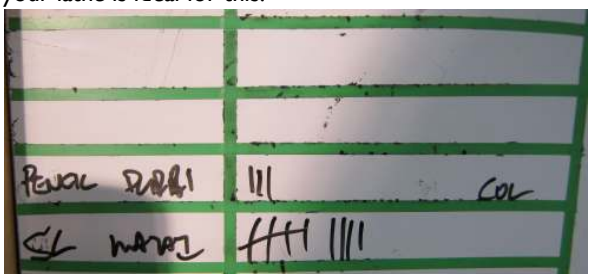
1. Start the lathe and set to a speed of 200-300rpm. Hold a new folded cotton rag lightly against the turning timber then apply 3-4 drops of thin CA.

2. Wipe the rag backwards and forwards along the timber 2 or 3 times to achieve an even coat. Repeat on the other blank. This should only take one rag and be done quickly. Stop the lathe and wait for the CA to cure.



3. Repeat steps 1 and 2 until there are 10-15 coats of CA on the blanks. After completing the CA application, it is important to keep the blanks on the mandrel for polishing. At this stage the CA will have sealed off the ends of the blanks against the bushings and, as the polishing process is done wet, this helps to stop any water getting into the end grain of the blank and causing it to swell.

As a general note, it also pays to keep a track of how many coats you have put on. A small whiteboard beside your lathe is ideal for this.



Native Pens

CA Finishing Process

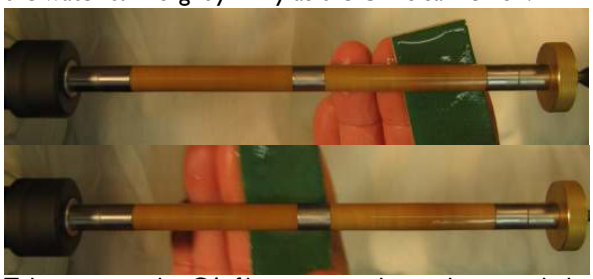
Polishing the Pen.

Native Pens uses the Micro-Mesh polishing pads for completing the finish on pens in a wet polishing process. These pads can be used wet or dry, however we find that using them wet produces a much better finish and helps to make the pad last longer.

At this stage it pay to cover the lathe bed. As this is a wet process a cloth on the lathe helps to keep water off. Equivalent Grit wet and dry sandpaper may also be used.

1. After all coats of CA are applied, stop the lathe and inspect the pen. At this stage the pen should have an even coating of CA and be shinny all over but may be quite rough on the surface. If there are any dull areas, apply more CA until the dull area becomes shinny.

2. Start the lathe and set to a speed to about 2000rpm. Native Pens typically starts at the Green Micro-Mesh. With a good amount of water on the pad, gentle rub it backwards ands forwards along each blank 5 or 6 times. This green pad is used for a longer time to remove the roughness left from the CA application. You should see the water turn slightly milky as the CA is sanded off.



Take care, as the CA film is quote thin and can easily be sanded off.

3. Next work your way through the Mirco-Mesh pads from Black to Gray. Ensure there is a good amount of water on the pad, and then rub it gently backwards and forwards on each blank 3 or 4 times.

Black

Tan

Wine / Brown

Teal

Purple

Royal Blue

Grey

4. After sanding with the Grey Pad, stop the lathe and inspect the pen. At this stage the pen should have a good level of gloss and be nice and even. If there are any dull areas, simple return to applying CA until the entire surface is shinny then re-do the polishing process.

If there is still roughness on the blanks, return to the Green pad and re-sand. Reduce the sanding time though.

Native Pens

CA Finishing Process

5. As a final step to polishing, give the pen a rub with some Native Pens SuperFine Polishing Paste. Give the bottle a good shake then squeeze out a small amount onto the tip of your finger, rub this gently onto each blank. Start the lathe and set to a speed to about 2000rpm. Gently rub the SuperFine Polishing Paste with a rag backwards and forwards along each blank 3 or 4 times.

6. Stop the lathe then, use a clean cotton rag rub longitudinally to remove the excess Paste and bring up the gloss.

7. The blanks are now finished and ready for removal from the mandrel. Please note that with the use of CA the blanks will be lighting bonded to the bushing. When removing from the mandrel, hold the blanks with one hand and remove the bushing with a twisting motion using your other hand. This helps to avoid chipping of the CA finish around the bush area.

Assemble the pen as per the pen kit instructions.

Completed Touch Stylus pen in Puriri