

ADVANCED CA FINISHING STARTER SET



Items not shown to scale

Set Components

1. Non-Stick Bushings #PKDRYBU

These CA resistant Bushings will help hold blanks in place for applying CA without risking gluing the bushings and blank together.

2. Hot Stuff Thin CA

Thin CA is very helpful in stabilizing and hardening surface wood in preparation for a higher build coating such as Medium CA. Thin CA can also be used in conjunction with filling material, such as sawdust, to fill in gaps in wood material prior to applying CA finish.

3. Super "T" Medium CA

Medium CA is a high build formula for CA finishing. It will cure quickly compared to a Thick CA with less chance of cracking or bubbling and will require much fewer layers than Thin CA to build up good coverage.

4. CA Accelerator Aerosol Spray

This CA accelerator will cause any uncured CA that it come in contact with to fully cure almost instantly.

5. Plastic Finishing Pads

These pads will help smooth and polish the CA finish after it is fully cured. Each pad contains two color coded grits.

6. One Step Plastic Polish

One Step is a final polishing medium for plastics. If the CA coating has been done correctly then wood will be encased in a polished plastic barrier. One Step can help buff and erase minor scratches that might be left over from polishing pads. Use to push the shine that extra mile!

Additional Materials recommended:

- Regular grit sanding materials (rolls, pads, or sheets)
- Paper towel or shop rag
- Applicators (described below)

Step 1 – Surface Preparation:

Once you have completed the turning, you must sand the barrel to a smooth finish using regular sanding grits ranging between 150-800 grits. This step applies to wood both raw and stabilized and plastic/wood hybrids. Start with 150 grit (or close equivalent). For best results when moving to next grit, wipe workpiece clean to remove any debris or sanding grit from the barrel.

For each step to a new sanding grit, stop the lathe and use the next higher grit to cross sand in line with the blank while turning lathe manually. This allows you to see when all scratches from previous grit have been removed and identify deeper, problem scratches.

Once you have satisfied yourself that all the old scratches are gone, you can then continue with the lathe on. Proceed through all the regular sanding grits to 800 grit (available in #SPSETMOD). Clean with a shop cloth or equivalent to remove all dust and leftover grit and proceed to Step 2.

Step 2 – Using Thin CA:

It is recommended to remove barrels from mandrel and re-mount with non-stick bushings before applying CA. Tapered ends of non-stick bushings will fit into and support any tube size greater than 7mm

To fill gaps:

Use filling material such as sawdust from the material to be filled or other filler obtained for the purpose, such as colored powder or chips from prior turnings. Pack filler into gap and drip thin CA over the filler. Use Accelerator to cure CA instantly. Repeat until material is fully packed over the surface level and turn or sand off excess until smooth.

To use as a stabilizer:

You will need an applicator for CA. An applicator for CA would be one that will spread it while being less likely to be bonded by the CA.

Recommended Applicators for Thin CA:

- Disposable shop rag (either white or blue) available at many home improvement stores. Fold to provide cushion and to protect fingers from CA exposure.
- Cotton Swabs with paper stick cores. Plastic cores tend to accelerate curing.

A stabilizer coat should be applied with the lathe off. If applying CA to the spinning lathe, cotton swabs and shop cloths will stick to spinning material. Apply a generous amount of Thin CA to an applicator and rub quickly but gently over the surface of the material while rotating the lathe by hand. You should only need a single coat to absorb and stabilize the surface. Applicator will stiffen as CA cures on it. If surface has not been fully coated before CA dries, use a new applicator and complete coat. Use Accelerator to cure the layer.

Before proceeding, make sure surface is cured by running back of fingernail over the surface of the CA. This will check curing without marring it or causing any adherence to skin. Wipe surface to remove leftover accelerant before applying Medium CA.

Step 3 – Applying Medium CA:

Medium CA should be applied to the Spinning Lathe with an applicator. An applicator for CA would be one that will spread it while being less likely to be bonded by the CA even when used on spinning workpiece.

Recommended Applicators for Medium CA:

- Small plastic bags such as those that contain kit parts
- Craft foam (available at craft stores)

Apply a moderate amount of Medium CA to applicator and apply to workpiece with Lathe spinning at medium to low speeds to avoid splatter. It is important to avoid using high pressure during application which can cause friction heat to build up and bond applicator to the workpiece. Smooth the CA onto workpiece with light pressure to cover the entire surface and then use Spray Accelerator.

To use Accelerator hold about 6 inches away from workpiece and apply an even, fine spray while the workpiece is turning (either by hand or with lathe on). Do not oversaturate the surface or the CA may bubble and form crackling patterns. Before adding any more layers of CA, make sure surface is cured with back of fingernail. Wipe surface to remove leftover accelerant before applying additional layers.

Apply at least 6 layers of Medium CA using the above method and then proceed to next step.

Step 4 – Cleaning Ends:

When using Non-Stick Bushings, you may notice some CA buildup on the end of the barrels. If the Barrels need 90° ends for pressing, you will need to carefully re-trim these ends. You can use sandpaper on a flat surface, careful cutting with Barrel Trimmer or a hobby knife, or a thin parting tool or skew on the lathe. Be sure to be extra gentle and careful when doing this as you do not want to mar the CA finish that has just been built up. Once you have cleaned the ends completely, replace the Non-Stick Bushings with proper kit bushings to be sure to complete steps with correct diameter.

Step 5 – Using Micro-Mesh Pads:

Micro-mesh can be used dry or wet. Note that dry use of Micro-Mesh will take some practice since it will be more aggressive and load the pads faster. Wet use will be less aggressive but may take longer and it is harder to see scratch patterns to make sure old scratches are removed. Wet method will also be somewhat messy, lay down absorbent towels to help with cleanup from dripping water. Note that a bad coating of CA over wood will potentially allow water to get to the wood blank. Use wet method with caution. Most PSI Technicians recommend dry use with water for cleaning dust buildup afterwards.

Each of the 9 double sided pads are coated with a proprietary grit number noted on chart below. One vital important step is to always make sure pads are kept in order as they are used and stored to avoid confusion.

Color	Rust	Green	Black	Tan	Brown	Teal	Purple	Blue	Gray
Grit	1500	1800	2400	3200	3600	4000	6000	8000	12000

Pads can be cut into 1in. wide sections and be cleaned with water to remove buildup and extend life.

Start with 1500 Grit and glide across workpiece with lathe on high speed. This will create vertical scratches as the lathe spins. Use light to moderate pressure. Too much pressure can cause friction and melt the pads.

Stop Lathe and examine surface for high spots and low spots. High spots will be polished to a satin finish; low spots will still be irregular, clear, and glossy. Continue with 1500 grit until surface is even with no high or low spots.

Proceed to the next pad. Stop the lathe and polish sideways while turning the lathe by hand. This will create horizontal scratches. Check for any vertical scratches from previous grit and continue until all traces of vertical scratches are gone.

Proceed though each grit, alternating between vertical and horizontal polishing. Scratches will become harder to see as grits become higher. Once all pads have been used examine surface for any leftover scratches. Minor, light scratches may be removed with One Step Plastic Polish. If any major leftover scratches are found, you may have to go back a few grits to remove.

Step 6 – Applying One Step:

One Step will help remove micro scratches and abrasions. If none are present and you like the finish as it is, you may skip One Step if you want to.

Apply One Step with clean non-woven cloth or shop towel. Fold applicator cloth several times to help create a cushion for applying. Shake bottle well before dispensing. Squeeze a small amount (5/8 in. - 3/4 in. dia.) of polish onto applicator cloth.

Polish can be applied to piece either with lathe on or off. Rub vigorously across surface for approximately one minute. Polish may turn black if it comes in contact with metal – this is normal and should not affect a properly applied CA finish.

After initial application, re-fold applicator cloth to a clean section. Turn lathe on and wipe across surface to clean off and complete polishing. Once polish is fully cleaned off examine workpiece and repeat application if desired.

