

SIX FINISHES FOR WOODTURNERS

Nick Cook

There is no one finish suitable for all of your woodturning projects. So where do you start when selecting the right one? The criteria for choosing the most appropriate finish for your turning include the type of wood, the project's size and intended use, durability, drying time, desired sheen (satin or gloss), ease of application, solvent or water-based, cleanup, repairability, and whether the finish can be used with food. While that's a mouthful, I've simplified the selection process by focusing on six finishes that pretty much cover the gamut from small daily-use turnings to furniture parts to purely decorative pieces.

Before you even consider the appropriate finish, however, it's critical that you prepare the turning's surface properly because no finish will cover or hide torn grain, tool marks, or sanding scratches. To combat any "surprises," check out "Sanding Savvy".

Sanding Savvy

To achieve the desired result with any turning finish, keep these sanding pointers in mind:

- Always use fresh sandpaper, and throw it away as soon as it gets dull.
- Provide raked/side lighting on the sanding surface to pick up any scratches and other defects.
- Sand your project through all the grits up to 320 or 400 grit without skipping any. (Some projects, such as pens and bottle stoppers may need finer sanding.)
- When you think you are finished sanding, sand one more time with the grain (and the lathe off) to remove scratches across the grain. Basically, fine sanding scratches add tooth to the surface for all but oil finishes to stick to it.
- Avoid causing heat when sanding, or you'll burnish the surface, making it difficult for a finish to adhere and penetrate.
- Clean the surface of all of your turnings with a paper towel before applying finish.

Worthy Alternatives

While I cover several finish products here, be aware that many other quality finish products exist. For an expanded look at products that can substitute for those featured, go to woodcraftmagazine.com/onlineextras

Finish 1

Seal the deal with CA

CA (cyanoacrylate) glues have proven ideal for small projects for quite some time. Recent developments have made some CAs more user-friendly and less likely to streak. The thinner viscosity of the Stick Fast CA Wood Finishing Kit makes it easier to apply. Combined with the abrasive mesh and polishing compound (included in the kit), the multistep application process lets you produce a hard, durable finish quickly. And while the CA dries to a satin finish, it can be buffed to a high gloss. Be sure to heed the safety precautions mentioned at right whenever working with CA.

Best Uses: CAs are especially good for pens, wine stoppers, game calls, and other small projects.

Downside: Take care when applying CA finish. Use nitrile gloves to keep CA off your skin and to prevent fingers from sticking to paper towels. Wear safety glasses or face shield. Finally, ventilate the area as fumes can irritate. Buy a bottle of super solvent, just in case.

Application: The Stick Fast system contains thin CA finish, medium CA finish, aerosol CA activator, 400-grit sanding mesh, satin polish and gloss polish. Similar to other CAs (by Satellite and Titebond), the finishing is simple. With the lathe at 300 to 1,000 rpm, apply a few drops of thin CA to your project with a paper towel (Photo A). Then spray an aerosol mist of CA activator to cure the finish in



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Finish 2

Let it shine with water-based

General Finishes Water-Based Wood Turners Finish produces a rich amber tone that can be buffed to either a satin sheen or high gloss. It is food-safe, durable, and acid resistant. A water/urethane product, it's safe to work with and can be applied with a paper towel, brush, or sprayer. It applies easily and cleans up with water. More good news: it lets you achieve an attractive surface with only one coat for sealing and successive coats for a deeper luster. It is not seen as a filler for open-grain woods.



Best Uses: Use this finish on salad bowls, platters, salt and pepper mills, and other utility items needing a durable finish.

Downside: Longer drying time means that you need to wait a bit to apply multiple coats.

Application: With the lathe off, apply water-based finish with paper towels (Photo A) or brush it on with a foam brush. When applying multiple coats, the first application will dry in 30 to 45 minutes. Apply additional coats in 30 minutes. The final finish requires five to seven days to cure to be food-safe. Use a flannel/cotton buffing wheel with carnauba wax to bring out the satin sheen following the final coat (Photo B).

Finish 3

3-step lacquer and wax

Gloss spray lacquer produces a glass-clear coating that goes on quickly. I prefer spraying over brushing. Here, I use Deft Clear Wood Finish. It dries fast and lets you reapply it in 30 minutes, with no sanding in between.

I like gloss lacquer over satin for building depth and because it contains fewer solids. Plus, you can repair it with a wax remover, light sanding, and another coat.



Best Uses: Consider lacquer for small and large decorative turnings—vessels and other showy pieces. I don't recommend it for utility ware in contact with food.

Downside: Lacquer is flammable, and its fumes can be a problem. Spray only in well-ventilated areas and away from heat sources.

Application: Sand small hollow forms and similar decorative turnings through 600-grit sandpaper before applying as many as five coats of gloss lacquer. With the lathe turned off, clean the turning, and then hold the can's nozzle about 6" to 8" from the surface and spray (Photo A). Rotate the turning for an even coat all around. Once dry, use #0000 steel wool with clear Briwax to level the surface (Photo B). Buffing with a buffing wheel and carnauba wax will bring out the shine. For a satin finish, skip the steel wool and wax and apply a final coat of satin lacquer finish.

Finish 4

Strike it rich with oil

Watco Penetrating Danish Oil, Natural, is a blend of boiled linseed oil and varnish that penetrates, seals, and adds a low luster. While it comes in several shades, such as natural, walnut, cherry, and golden oak, I find that natural is the obvious choice for all woods. It applies easily, though it takes time to achieve the desired result. The final finish is relatively soft, somewhat durable, and repairs quickly. And while it dries slowly, it produces a warm amber tone.



Best Uses: Watco Penetrating Danish Oil works well for general turnings and furniture such as the stool legs and seat shown below.

Downside: Watco Penetrating Danish Oil dries slowly, typically taking several hours. In fact, I like to wait 24 hours before reapplication. Take care to properly dispose of your oily paper towels to avoid a spontaneous combustion fire. The product results in a satin sheen only.

Application: With the lathe off, wipe on a full wet coat of oil using a paper towel (Photo A), and allow it to penetrate into the wood for 15 to 20 minutes. Then wipe off the excess and burnish it into the wood with a dry paper towel. This is not the same as burnishing raw wood with sandpaper. Allow the coat to dry 24 hours or more, and then reapply to build three to five coats over the course of several days or weeks. When the piece is completely cured (again, 24 hours after the final coat), apply a coat of wax using #0000 steel wool (Photo B). Finally, buff the wood surfaces to achieve a pleasing satin sheen.

Finish 5

Speedy friction finishes

One popular category used to finish the pepper and salt mills on page 38 includes friction finishes such as Hut Crystal Coat and Mylands High Build Friction Polish. When correctly applied, the end result is a glowing high-gloss, one-coat finish executed in record time.

Best Uses: Apply friction finish to pens and other small turnings.

Downside: Because of its alcohol base, oils from your hands can degrade a friction finish over time. Other ingredients include petroleum distillates, shellac, and waxes, making the finish highly flammable. Its fumes can irritate. To be safe, ventilate the work area, and stay away from any heat source.

Application: Sand surfaces to 600 grit or higher. Then, shake the bottle and add a few drops to a paper towel. With the lathe turned off, wipe the friction finish on the turning. Then, with the turned lathe on, hold a paper towel to the turning with moderate pressure.



Finish 6

Super-simple mineral oil

While mineral oil is a by-product from distilled petroleum, it remains one of the best food-safe finishes for utility items, and it's cheap! (I found a 16 oz. bottle at a local pharmacy for \$5.19.) It is colorless, odorless, tasteless, and totally inert. It goes on easily, can be applied on or off the lathe, and is easy to repair. Add beeswax to it to add more protection and sheen, but not on art objects. It collects dust. Reapply as needed.



Best Uses: I use the mineral oil and wax combo for honey dippers, spurtles (stirring sticks), salad bowls, baby rattles, and other utility items.

Downside: This finish offers only low water resistance. It needs regular recoats and can collect dust. Expect a low luster only.

Application: Apply mineral oil with the lathe running at a low speed (Photo A). (A plastic pump bottle like the ones used for liquid soap makes a great dispenser for your oil.) Use paper towels to make a pad, and pump a squirt or two of oil on it. Blot the oil to avoid a puddle on the pad as the spinning object will sling the liquid onto you and everything in the shop. As you apply the oil, burnish it into the spinning wood. The addition of beeswax over the mineral oil adds luster and a little more protection. Then take a block of beeswax and apply it directly (Photo B). Use a dry paper towel to buff the surface to a soft, fragrant finish.

About the Author

Nick Cook is a full-time professional turner whose home and commercial shop are located in Marietta, Georgia. In addition to turning anything from bottle stoppers to porch posts and everything in between, he is one of the founders of the American Association of Woodturners (AAW). He's also an established turning teacher who travels the country conducting woodturning workshops.

