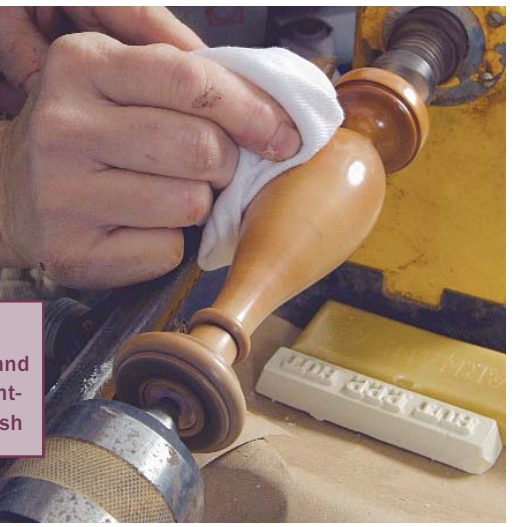
# Four Finishes for Turnings

## When to use wax, shellac, lacquer, and oil

BY TERI MASASCHI


Wood that is spinning on a lathe allows the finisher to apply various finishes rapidly and flawlessly. While most of the finishing materials used on turnings are familiar to wood finishers, the method of application is different. Sanding is far less of a chore, grain filling is quicker and less messy, and the friction caused by the applicator (usually a pad or cloth) dries the clear coating instantly. The problems of sags, dust, or other imperfections are simply nonexistent. In short, finishing turned work provides almost instant gratification.

### Which finish works best?

While the brand names are many, the actual categories of finishes used on turnings are few. The intended use of the turning is the key to choosing a finish: If it is a decorative object subject to occasional handling, such as a candlestick, shellac or wax would be fine. If it is a chair part subject to moderate wear, shellac or an oil finish are possibilities, while an item such as a kitchen-table pedestal needs a durable lacquer finish to resist shoe scuffs. Finally, salad bowls and other woodenware need food-safe materials applied to them, such as mineral oil, 100% tung oil, and some types of linseed oil (check with the manufacturer to make sure there are no added driers, which are toxic).

Some materials are initially applied with the wood standing still. Then, with the piece spinning in the lathe and a cloth held firmly against it, the surface is polished. Other materials are applied directly to the moving wood. They dry rapidly because of the friction and produce an instant gloss.

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**Watch it on the Web**
**To see a video on finishing turned work, go to www.finewoodworking.com.**

Photos: Mark Schofield

## Before finishing, it's important to sand, fill, and stain

***Sanding sponges protect fingers from friction heat.*** *They're also flexible, which allows them to enter coves without dulling crisp shoulders.*

If your work has been properly turned, you should only have to start with 180-grit paper—usually much higher. I use standard aluminum-oxide sheets of sandpaper, but sanding sponges are a flexible alternative (right).

For most liquid finishes you can stop sanding at 400 grit because most of them involve some scuff-sanding during the application. But a wax finish requires a perfectly smooth surface. So, at 500 grit, swap over to Abralon pads, progressing through 1,000, 2,000, and 4,000 grits. Then switch to sheets of Micro-Mesh abrasive, moving from 6,000 grit to 8,000 grit to 12,000 grit.

Most turning exposes a lot of the end grain, which absorbs stain and finish differently than face grain, so you may need to deal with this problem before applying a final finish (see *FWW* #156, pp. 113-114). Sanding up to 12,000 grit is one option to close up the pores and achieve an even finish penetration.

Instead, after a light sanding with 400 grit, you can use a grain filler. If you prefer a more open-grain look, glue size works well. Both grain filler and glue size can be applied while the workpiece is spinning in the lathe. The filler is forced into the grain quickly and smoothly with a rag, and the friction simultaneously removes the excess. The glue size is applied the same way. Both the filler and the glue size are dry to the touch in four to six hours. Once it's dry, you can jump right ahead to 4,000 grit to smooth and dewhisker the surface.

If you are going to color the workpiece, use an alcohol-based dye stain to achieve maximum transparency (water-based dyes gum up the glue size and some grain fillers). Or you can apply an oil-based pigment stain if you are more comfortable with this product. Application of either the dye or the stain is easier and will be more even if the wood is moving. Using a cloth, apply multiple thin coats until you reach the desired color.

### SOURCES OF SUPPLY

**FINISHES USED ON TURNINGS**

Woodcraft (800-225-1153; www.woodcraft.com)

Penn State Industries (800-377-7297; www.pennstateind.com)

**ABRALON PADS AND MICRO-MESH SHEETS**

Woodworker's Supply (800-645-9292; www.woodworker.com)

Micro-Surface Finishing Products (800-225-3006; www.micro-surface.com)

***Grain filler can be colored.*** *Use a cloth to apply the filler to the spinning wood (above), forcing it into the grain and removing any surplus. Smooth the surfaces with a 4,000-grit Abralon pad (left) before moving to the next finishing step.*

***A moving stain.*** *An alcohol-based dye or a pigmented oil stain is applied to the spinning workpiece in thin coats with a clean cloth.*

## WAX

***Solid wax.*** *After holding the solid bar of wax against the moving section of a candlestick, burnish the surface with a clean cloth pushed hard against the wood.*

***Liquid wax.*** *Apply the shellac/wax cream while turning the work by hand. Once all of the wood has been coated, turn on the lathe and buff the surface to a high gloss.*

### A WAX FINISH REQUIRES CAREFUL PREPARATION

**Wax finishes are available in solid or liquid form. The traditional method of applying wax to turnings has been to use solid bars of carnauba wax or blends made by Hut. Press the bars against the spinning wood to apply a thin but uniform coating, then burnish the surface with a tightly held cloth. Turn over the cloth frequently to expose a clean surface to the wood. Burnishing leaves a thin but smooth surface that brings out the flawless beauty of the wood.**

**New alternatives to solid wax are the liquid shellac and wax mixtures such as Hut's Crystal Coat or Shellawax cream by U Beaut Polishes. These generally are applied to the workpiece while it is stationary in the lathe and then burnished with a clean cloth while the workpiece spins. As with solid wax, the gloss appears almost instantly, leaving a smooth surface.**

## SHELLAC

### SHELLAC IS A GOOD ALL-PURPOSE FINISH

**Applying shellac to a turning is rather like French polishing in that multiple thin layers are applied over a short time. Instead of a special rubber (pad), a simple piece of cotton cloth is used as the combination applicator and burnisher. Because the shellac is applied in such thin layers, you can afford to use a heavy 3-lb. cut. Avoid using shellac on items subject to constant handling, such as pens and walking sticks, because the acid in human hands can eat into shellac.**


***A moving finish.*** *Apply the shellac by moving the cloth up and down the turning wood. The shellac dries instantly, allowing several coats to be applied in quick succession.*

## LACQUER


***Seal the surface.*** *Applying a cellulose sealer while the workpiece is stationary helps smooth the end grain.*


***Instant shine.*** *After sealing the workpiece, apply lacquer to the moving wood to give an instant high-gloss look.*

### LACQUER IS DURABLE AND QUICK TO APPLY

Lacquer finishes, which include Behlen's Woodturner's Finish, Qualasole, and French Lac, all are applied with a lint-free cloth held gently against the workpiece while the lathe is running. There is no need to flood the wood because these film finishes are not meant to penetrate the wood.

For slightly open-grained wood or areas of exposed end grain, apply a coat of Myland's cellulose sanding sealer while the workpiece is stationary. After the sealer has dried, apply Myland's high-build friction polish using a lint-free cloth while the workpiece is turning. When building a finish, occasionally stop the lathe to check whether the surface has any nibs. You can remove the nibs with a 4,000-grit Abralon pad.

## OIL

### OIL ACCENTUATES THE FIGURE IN WOOD

Oil finishes, including Danish oil and Waterlox's Original Sealer, are applied to the moving workpiece with a saturated cloth. Once the wood has been coated, hold a 400-grit sanding sponge against the spinning work, which pushes the oil into the wood, creates a slurry that fills voids, and leaves the surface slippery smooth.

Oil also is a good choice for turnings or parts of turnings that can't be finished while the lathe is moving, including offset turnings, spiral turnings, and legs that have square shoulders. The oil can be applied and then sanded by hand with no obvious distinctions from the power-sanded areas.

Most food-safe finishes are oil based and require heavy penetration into the wood to be effective. For this reason, it is less messy to apply the oil liberally while the woodenware is off the lathe and allow the oil to soak in. If necessary, the piece can be remounted and the oil sanded in with 400-grit sandpaper or a sanding sponge. Food-safe finishes include tung oil, Waterlox Original Finish, mineral oil, and linseed oil that doesn't include metallic driers such as Tried and True oils.

***Wipe on the oil.*** *With the lathe off, apply the oil with a cloth, turning the workpiece by hand.*

***A penetrating finish.*** *After oiling the wood, turn on the lathe and wet-sand the surface with a 400-grit sponge. This pushes the oil and sawdust slurry into the voids, smoothing the surface and enhancing the figure.*

***Spare the oil and spoil the bowl.*** *Don't be afraid to flood the wood with a food-safe oil and let it soak in. Only in this way will the bowl survive future exposure to foods and dishwater.*