



One Editor's Foolproof Finish

BY MARK SCHOFIELD

When I joined *Fine Woodworking* in the summer of 2000, I was made responsible for the finishing articles. The editor made it seem like an honor, but in truth I don't think any of my colleagues wanted the job. Like most woodworkers, they'd rather cut wood than finish it. But today, after hundreds of hours watching finishing experts such as Peter Gedrys, Jeff Jewitt, Teri Masaschi, and Chris Minick work their magic, I have a confession to make. I like finishing.

I haven't completely bought in, however. While I'll attempt a perfect French polish, I can still relate to my fellow woodworkers who above all want a finish they can't mess up.

To meet this need, I have developed what I call the "*Fine Woodworking* foolproof finish." You first seal the wood with shellac, then apply three or more coats of gel varnish, and complete the finish with a coat of paste wax. You get a medium-luster, in-the-wood finish that can be built up to give varying degrees of protection. All three steps are applied by hand, the only "tools" are pieces of cloth, and I promise you'll be proud of the results.

It all begins with careful preparation

I've lost track of how many projects I've seen (including one or two of my own early efforts) that prominently display the telltale tracks of jointer or planer knives. Like most finishes, this one

Beautifies, protects, wipes on, dries quickly, enough said

doesn't hide poor preparation; it magnifies it. So the first task is to prep the wood's surface.

If you have mastered the bench plane and/or the scraper, you can remove machine marks fairly quickly. Then use a random-orbit sander with P180-grit sandpaper followed by P220-grit paper, and finally hand-sand with the grain using P220-grit paper wrapped around a sanding block. Remove the dust with a vacuum or compressed air. If you don't handplane, start power sanding with P100-grit, move to P150-grit, and then follow the steps above.

The second step is to create a sample board on scraps from the project. After making this cabinet, designed by Garrett Hack (*FWW* #175), I could tell after wiping the bare wood with denatured alcohol that the walnut crotch used for the panels would appear darker under a finish than the walnut used for the rest of the project. I did the full finishing sequence on samples of both woods and found that a dark wax would bring the plain walnut close enough in color to the crotchwood (which gets clear wax).

Seal with shellac, then apply gel varnish

If your project includes a floating panel, it is always a good idea to finish it before inserting it into the frame. In this way you won't see a strip of unfinished wood when seasonal changes cause the panel to shrink. I also finish the inside edges of the frame

1 Shellac

Dip and squeeze. Fold up a small piece of clean cotton cloth and dip it into a can of dewaxed shellac. Squeeze out the surplus so that it doesn't drip.

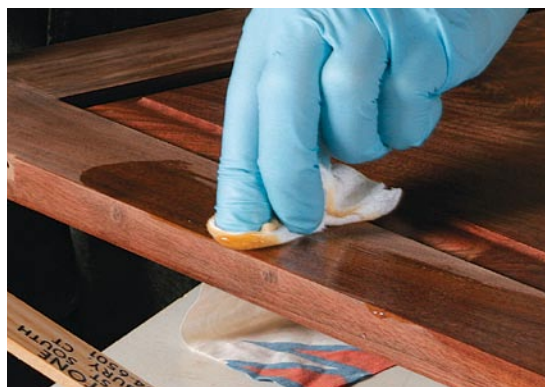


Seal the surface. Wipe the cloth over the surface no more than a couple of times to leave a thin film of shellac on the wood (above). Use P320-grit sandpaper wrapped around a sanding block to smooth the surface (left). Remove the dust with a vacuum or compressed air.

2 Gel varnish



One thick finish. The easiest way to control how much gel varnish goes onto the cloth is to place it on with a stirring stick.



Rub on the gel varnish, then wipe off the surplus. Work the finish into the wood using small, circular movements, then wipe with the grain to remove any thicker deposits (left). Don't try to cover too large an area or the finish will become tacky before you can buff it. Use a clean cotton cloth to wipe away the surplus gel varnish (above), turning the cloth frequently to keep exposing a clean surface.

components with shellac and gel varnish before assembling them. This is much easier than trying to finish the narrow strip of frame and not get finish on the panel.

I've found that giving bare wood a single coat of dewaxed shellac has a number of benefits. On blotch-prone woods like cherry or pine, shellac helps prevent the uneven shading you can get from applying gel varnish to bare wood. On dyed wood, the shellac prevents pulling away some color when you rub on the gel varnish. And finally, sealing the wood with shellac and then sanding it gives a smoother base than bare wood for the gel varnish. Use a dewaxed shellac, like Zinsser's SealCoat. It comes as a 2-lb. cut, and I apply it as is, by dipping a small piece of cloth in the can, gently squeezing out the surplus, and then wiping the wood with the cloth. A couple of strokes over each area is usually sufficient. Let the shellac dry for about 30 minutes, and then lightly hand-sand the surface with the grain using P320-grit sandpaper. Vacuum or blow the dust out of the pores.

A gel varnish (also known as gel polyurethane or gel topcoat) has much the same resin, oil, and mineral spirits as a liquid clear finish, plus a thickening agent. This makes it much easier and

less messy to wipe on. And because the product is designed to be wiped, it needs no thinning. Best of all, each layer dries too quickly to attract dust, so there is no need to sand between coats.

To apply, you simply dip a cloth into the gel, work it into the wood, and remove the surplus with a clean cloth. There are a few tricks to getting the best results. First, don't apply too much gel or work on too large an area at once. The varnish gets tacky in minutes and becomes progressively harder to remove. If you find yourself trying to wipe away gel the consistency of lard, simply dampen a cloth with mineral spirits, wipe away the gel, let the surface dry, and then apply the finish again.

Start with an area of about 2 sq. ft. You can increase the area if you find you are having no trouble removing the surplus. I rub the gel well into the wood. After you first wipe off the surplus, small wood pores appear filled; but as the gel cures, it sinks down to line the inside of the pores, leaving an open-grain look.

When removing the surplus gel, keep re-folding the cloth so that you don't smear the finish. The final rubdown should be with the grain. You can let the

Sources of Supply

Woodworker's Supply www.woodworker.com

Zinsser SealCoat, gel finishes by Bartley and General Finishes, and colored waxes by Briwax, J.E. Moser, Liberon, and Fiddes

Highland Woodworking www.highlandwoodworking.com

Zinsser SealCoat, gel finishes by Petri and Bartley, and Sheradale brown wax

Antiquax www.antiquax.com Antiquax brown wax

3 Wax



Colored wax can be used to subtly change the tone of a whole piece or to harmonize sections. I used a really dark brown wax on most of the walnut but a clear wax on the panels. Allow the wax to dry for 20 to 30 minutes and then buff the surface with a clean cloth.



finish cure overnight, but in reasonably warm and dry conditions you can apply two coats in a day. To avoid spontaneous combustion, always spread used finishing cloths outside to dry before throwing them away.

You should apply at least three coats to build an even luster. On a piece like a side table, where the top will get slightly heavier use, you can apply four or five coats. But don't try to build up a plastic-looking finish. In theory, you could wipe on enough coats to protect a kitchen tabletop, but liquid polyurethane would be quicker. By the way, all gel varnishes leave a satin finish.

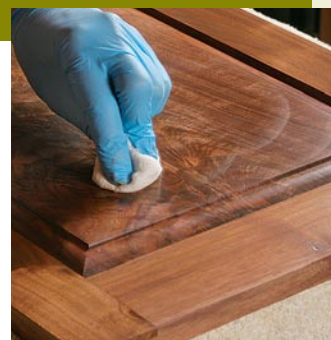
Top it off with wax

After the last coat of gel has cured for at least three days, I give the workpiece a coat of paste wax. Peter Gedrys recently described the numerous benefits of wax (*FWW* #191, pp. 54-59). Though gel varnish, applied and wiped off correctly, leaves a very smooth surface, it still has a slight grab to it when you touch it. Nothing beats the silky feel of a surface that has been waxed and buffed. Wax also gives some scratch protection, since objects are more likely to slide across the surface than to dig in and scratch it. And wax conceals any differences in sheen, though these should be minimal if you removed all the surplus gel.

Finally, dark wax left in corners and crevices emphasizes the three-dimensional aspects of the piece, and it can cover up minor blemishes in craftsmanship. You may never build the perfect piece, but at least it'll have a perfect finish. □

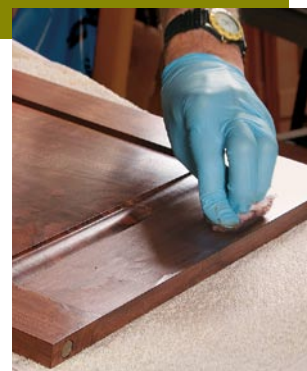
Mark Schofield is the managing editor of *Fine Woodworking*.

APPLY CLEAR WAX THINLY



A thin film of wax. Fold over a piece of cheesecloth a couple of times and then place a lump of paste wax in the center (left). Gather the corners of the applicator and then press down until the wax begins to ease out through the rounded face of the applicator. To avoid having light wax show up in the pores of dark wood, use light pressure on the applicator.

WORK DARK WAX INTO PORES



Apply dark wax directly. If you want dark wax to enter the pores to change the tone of a piece, wipe the cloth into the wax (left). Work it into the wood and then wipe with the grain to remove the surplus (right). Buff the wax, clear or dark, until the surface is silky to the touch (below).

