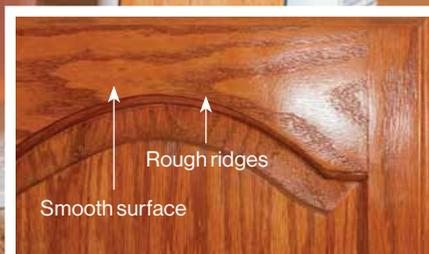


Pore FILLING

A recipe for enhancing your ring-porous projects

By Robert J. Settich



Pockmarked with pores. Ring-porous woods such as red oak can display a smooth surface followed by a darker band punctuated with large pores and rough ridges.

The cells in a tree perform an intricate symphony, harmonizing water, soil nutrients, carbon dioxide, and sunlight into a living composition that produces habitat, oxygen, shade, and beauty. But the music dramatically changes when a tree transitions into lumber. Some of the tree's previously hidden features can display incredible beauty, but the walls of some empty cells appear as prominent pores that can be completely out of tune with your project.

For example, if you apply a gloss finish to a ring-porous wood such as red oak, the smooth portions of the wood produced by the tree's latewood growth reflect light evenly. But the prominent pore structure in the earlywood appears as dark craters or even furrows, spoiling the overall effect.

Fortunately, it's not difficult to fill the distracting pores so that you'll have a uniformly smooth surface. The process

relies on the simple ingredients painters traditionally used to make putty: oil and whiting powder—a pulverized form of calcium carbonate used as a mild abrasive and filler in paints. It's available at most paint and hardware stores (see Buyer's Guide, p. 60). The old-timers would dump a pile of whiting onto a mixing board, form a well in the center, pour in oil, and mix with a spatula until the mass congealed into a ball.

Even though you'll use identical ingredients, you're not aiming to make a putty for filling nail holes or repairing dented or missing wood. Instead, you're going to use the oil as a lubricant while you drive the whiting into the pores, creating an overall surface-smoothing treatment. And while the old recipe used a slow-drying oil such as linseed, you'll update that with a modern oil finish that has a drying agent for a firm grip in the pores. Let's get started.

Pore-packing procedure

Mix a few particular but easy-to-get items to form a paste. Oil the surface and then press the paste into the pores. Rub it in, squeegee it off, and let it dry. Then sand the surface smooth and seal it with shellac. A simple procedure, and there's even room to experiment.



1 **Make the pad.** To make an applicator pad, cut cotton cloth into 8" squares. Old t-shirts are ideal. Wad two of them into the center of a third one and bind it with a rubber band.



4 **Wipe the excess.** Use a window squeegee to remove excess slurry. Stroke at a 45° angle to the grain direction. Wipe lightly with burlap scraps on edges and curved surfaces that you can't squeegee.



6 **Sand the surface.** After overnight drying, lightly hand-sand with 120-grit paper, frequently unclogging your sanding block. Sand just enough to remove the overall haze. Get too aggressive, and you'll sand away the filler.





2 **Wet the work.** After sanding the wood to final smoothness, squirt on enough oil finish to liberally wet the surface when you spread it with your applicator pad.



3 **Mix a slurry.** Sprinkle whiting onto the oil, mixing it into a slurry resembling runny pancake batter. Add more oil or whiting to get the consistency right. Push the mixture into the pores with a figure-8 motion.



5 **Check your progress.** The surface will be slightly hazy, and a few squeegee lap marks are fine. The oil dries slowly, so you have plenty of open time. If the pores aren't completely filled, apply a fresh dose of slurry.



For darker woods

The dark side. To make a darker filler, keep some whiting in the mix as a binding agent but add rottenstone to deepen the tone. (Dark grey in color, rottenstone is powdered porous rock, usually weathered limestone mixed with silica, sold as a polishing abrasive.) You can premix the powders or do it on the fly.



7 **Ready for finish.** Use a vacuum to remove all dust, then apply a thin coat of gloss shellac to check your success. You can apply more filler over the shellac or move ahead to your first coat of finish.



Even spices can brighten your filler.

Add a distinctive accent to your project by trying non-traditional materials such as metallic or pearlescent powders.

Explore decorative filler effects

After you master the basic techniques of pore filling, you can expand your horizons to include decorative options. Whatever you add, it's a good idea to always include some whiting to provide body and help the filler grip the wood.

As with any new technique, preview the result on a small test panel instead of immediately slathering an untried compound all over a project. Exercising restraint is also a prudent approach. You have every right to satisfy your personal taste, but recognize that subtle effects are usually easier to live with than garish drama.

PolyColor powders usually tint Alumilite casting resin, but they

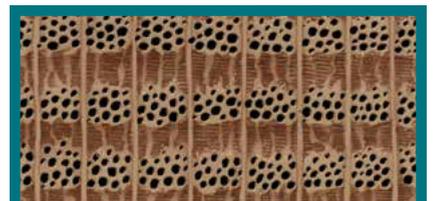
can also provide interesting results as part of a filling compound. You can generate effects that are colorful, metallic, pearlescent, or all of the above. You can even buy a powder that will glow in the dark.

You can also experiment with powdered metals you buy in a crafts store or file yourself. These can add highlights of copper, brass, or aluminum to your project.

At a completely different level, you can literally spice up your project by exploring the spectrum at your grocery store. Choose among the subtle tone of cinnamon, the warm glow of turmeric, or the blazing colors of paprika and cayenne. Have fun and happy filling. ■



The spice is right. Here's a board filled with whiting but then spiced with a pinch of paprika and a dash of silver glitter.



To learn more about the formation of different pore types in living trees, please turn to the *Woodsense* article "Wood Pores" on page 54.