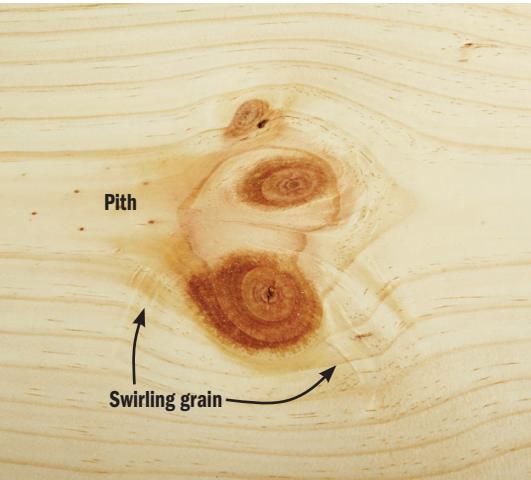


How to get a Fine Pine Finish



Avoid pith and swirling grain. Wood in the tree's first few growth rings, and swirling wood near knots, will be prone to tear-out, splitting, and uneven finish absorption.

Many woodworkers love pine because of its low cost, easy workability, light weight, and wide availability. And, when clear-finished, pine radiates a warm glow found in few other woods. What's not to like? Well, if you prefer a darker, stained finish, things get a little dicier. That's because a bare pine surface absorbs stain unevenly, yielding an unnatural, blotchy, or zebra-like coloration. But don't let that deter you. Pine can be pleasingly stained—it just requires a bit of extra prep work.

4 steps to staining success

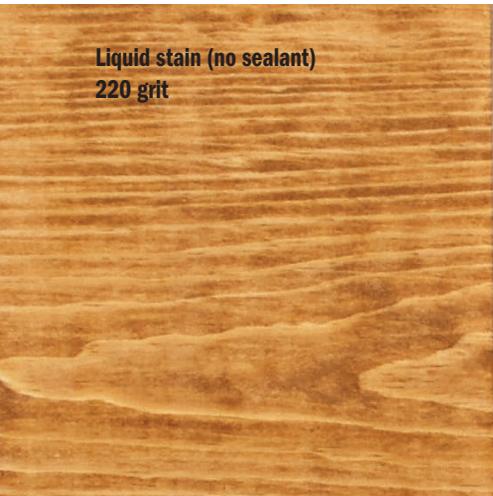
Within the pine bins at your local lumber retailer, you may find any number of tree species loosely defined as "pine." And even within the same pine species, boards can vary greatly in how they absorb stain. That

adds up to a lot of staining unpredictability. To manage the situation, you need to test your finish on sample boards made from the same wood used in the project. That's exactly what we did to demonstrate this surefire staining process for pine.

1. Buy the right boards. Most pine lumber has knots, an "imperfection" that's part of the wood's charm. Just avoid knots so loose they're about to fall out, especially ones near the tree's pith or with wildly swirling grain as shown, *left*. Secure and seal knots with an application of clear epoxy.

2. Sand smooth. After sanding all surfaces with successively finer grits up to 180 using a random-orbit sander, sand once more by hand with a 180-grit block, stroking with the grain to eliminate any swirl marks. Then,

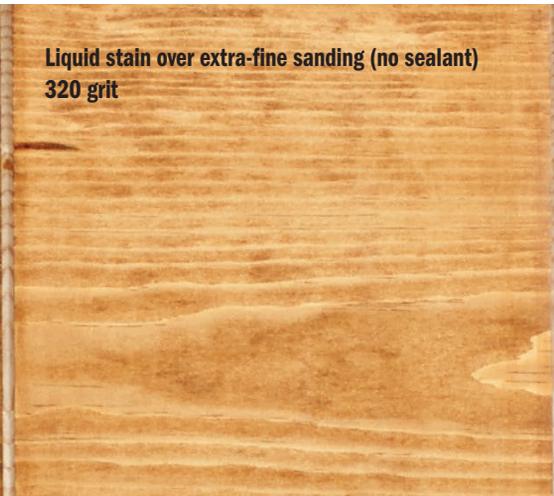
PINE REQUIRES SEALING PRIOR TO STAINING



Liquid stain (no sealant)
220 grit



Gel stain (no sealant)
220 grit



Liquid stain over extra-fine sanding (no sealant)
320 grit

DARKEN WITH GEL STAIN; AVOID OVERSANDING



One gel coat over wipe-on poly
180 grit



Two gel coats over wipe-on poly
180 grit



One gel coat over wipe-on poly
220 grit

sand the ends to 220 grit to lessen the tendency of end grain to soak up extra finish.

3. Seal the wood. As shown in the *first three* swatches on the *upper* test panel, stain applied directly to a bare pine surface yields a blotchy look. Because gel stain absorbs into the surface less than liquid stain, it tints the surface more evenly. But it still leaves a blotchy surface with too much contrast from early- to late-wood grain lines.

To put the brakes on uneven stain absorption, you have to seal the surface. We tested four methods: simply sanding the wood to 320 grit, and applying three types of sealants: shellac, a store-bought conditioner specifically marketed for use on blotch-prone woods, and a wipe-on polyurethane finish. (It's available in stores, or you can blend your own by mixing polyurethane and mineral spirits

50/50.) After allowing those sealants to dry completely, then lightly abrading them with a 320-grit sanding sponge stroked with the grain, we applied a liquid stain. The swatch sealed with wipe-on poly (*last swatch, upper panel*) showed the most even staining, making it the go-to finish for prepping the surface prior to the next step.

4. Apply a gel stain. Although you can successfully apply any stain over a surface sealed with thinned polyurethane, a gel stain gives you the greatest control over the ultimate color. That's because its thicker consistency allows you to build (and darken) it with successive applications.

The *bottom* test panel shows the effect of adding a second gel coat on top of a first. Building stain coats takes time because each stain coat must dry completely. Otherwise,

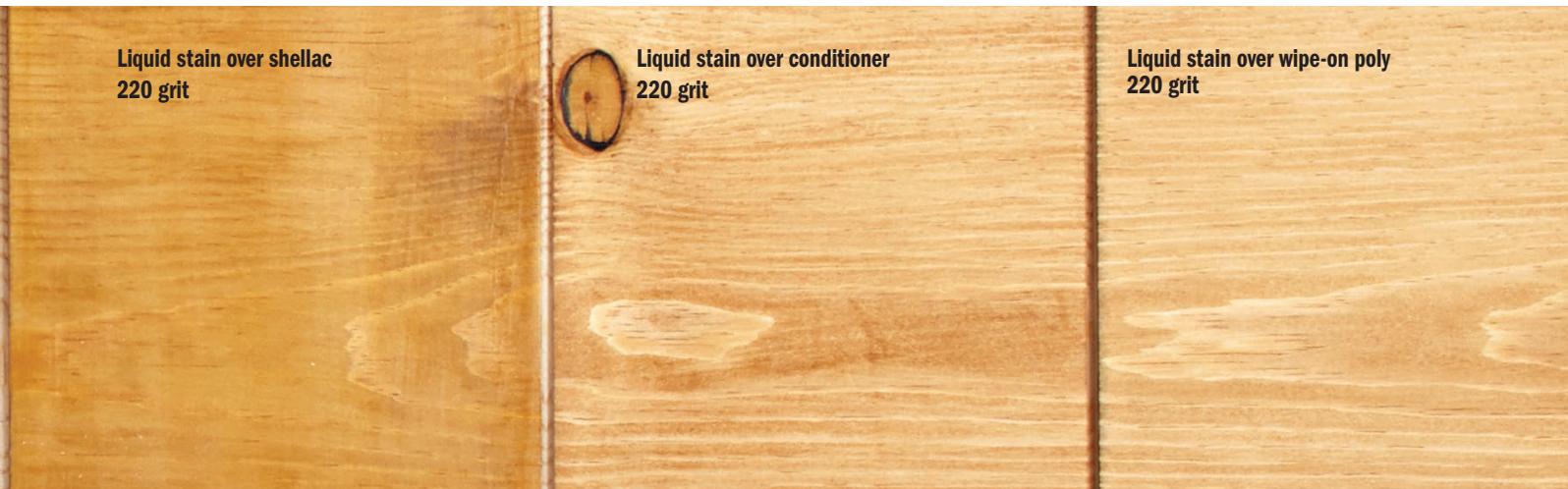
you risk removing part of the initial coat with the application of the second coat.

On that panel we also tested gel stain directly applied to a surface sanded to 320 grit with no sealant (*last two swatches, bottom panel*). Again, as with the liquid stain, blotchiness still occurred. We also wanted to know if sanding the surface to 220 grit prior to sealing was of any benefit versus simply sanding to 180 grit. It wasn't (*first four swatches, bottom panel*).

Now stain your pine projects without fear of blotching—but don't be overly brave—you still need to test your finishing products and methods on scrap. 🌲

► For additional tips on working with pine, visit woodmagazine.com/pinetips.

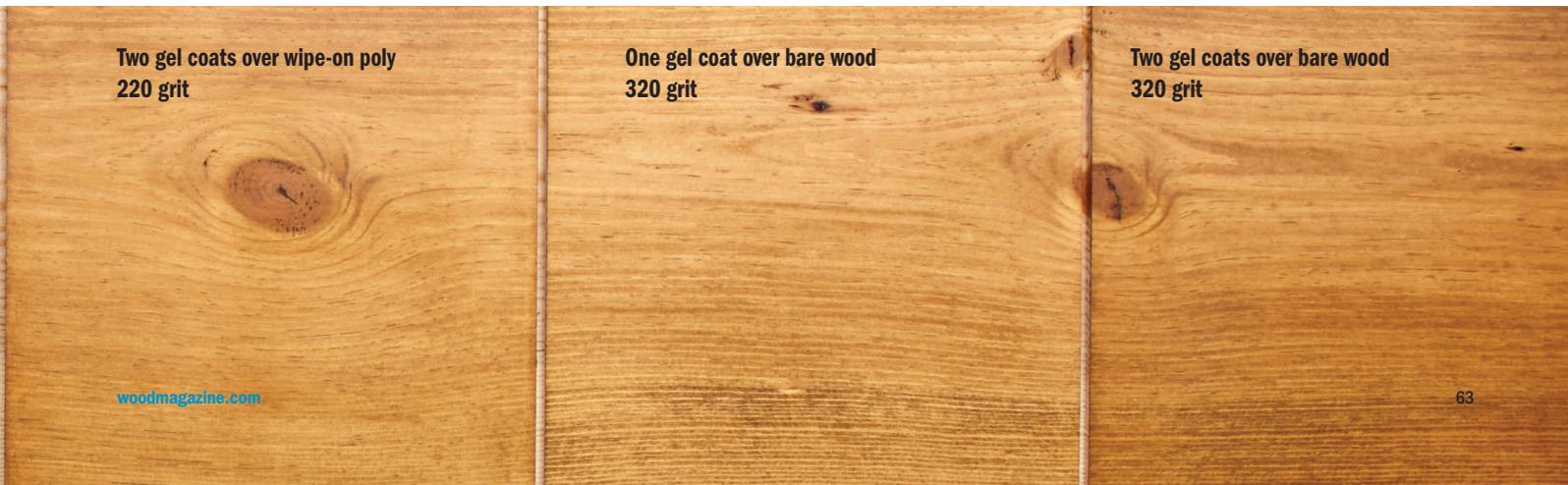
Produced by Bill Krier



Liquid stain over shellac
220 grit

Liquid stain over conditioner
220 grit

Liquid stain over wipe-on poly
220 grit



Two gel coats over wipe-on poly
220 grit

One gel coat over bare wood
320 grit

Two gel coats over bare wood
320 grit