

Staining Pine

Make this inexpensive wood look like a million bucks.

By Tim Johnson

Antique pine often has a dark, mellow color. Unfortunately, when woodworkers try to duplicate that color on new pine by using stain, the results are usually disappointing. It's easy to end up with megablitches and it's hard to avoid "grain reversal," a peculiar effect that makes stained pine look unnatural (first photo). It doesn't have to be that way, though. If you follow the process presented here, you can give pine deep, rich-looking color without losing its natural appearance.

Pine is hard to stain for a couple of reasons. First, its grain is unevenly dense. Typical wood stains cause grain reversal because they color only the porous earlywood; they can't penetrate the dense latewood. Second, pine's surface is usually loaded with randomly occurring figure and super-absorbent pockets that suck up stain and look blotchy.

Our staining process includes four ingredients, water-based wood conditioner, water-soluble wood dye, dewaxed shellac and oil-based glaze (see Sources, below). Our process isn't fast, because there are several steps. But it isn't hard, and it's home-shop friendly. You don't need any special finishing equipment, just brushes and rags.

In a nutshell, the conditioner partially seals the wood's surface to control blotching. Dyes penetrate both the earlywood and latewood, so they minimize grain reversal. Shellac and glaze add color in layers, creating depth and richness. This coloring process works on all types of pine, although the end result varies from one species to another.

Look Before You Leap

Before you touch your project with a brush or rag, get familiar with the materials and the process by practicing on good-sized pieces of scrap. Experiment on end grain, face grain and veneered stock. Practice until you're comfortable with the process and know what to expect.

Fix Loose Knots

Before you sand, stabilize any loose knots by dribbling epoxy into the gaps (Photo A, right). To make cleanup easier, keep it off the surrounding wood surfaces. After the epoxy has set, sand it flush with the surface. Clear epoxy transmits the dark color of the knot. If your epoxy cures milky-white, touch it up later, after you've dyed the wood and sealed it with shellac.

Sand Thoroughly

A good-looking finish always starts with a thorough sanding job, especially with a soft wood like pine. Here are some guidelines:

Sand with a block. Orbital sanders leave swirl marks that make the stained surface look muddy. After power sanding, always sand by hand, using a block, before you go on to the next grit (Photo B). Sanding with finger pressure alone wears away the soft earlywood, creating an uneven surface.

Change paper often. Pine gums up ordinary sandpaper with pitch-laden dust that quickly renders it useless. Dull paper mashes the wood fibers instead of cutting them, which also creates a muddy appearance when you stain. Stearated sandpaper lasts longer (see Sources, page below).

Sand up to 220 grit. First, level the surface with 100-grit paper. Then work through the grits to create finer and finer scratch patterns. 220-grit scratches are fine enough to disappear when you stain, as long as they don't go across the grain.

Raise the Grain

Invariably, sanding leaves some fibers bent over. Water-based finishes swell these fibers so they stand up, leaving a rough surface. For smooth results with these finishes, raising the grain prior to finishing is essential (Photo C).

Two Coats of Conditioner

Water-based wood conditioner (see Sources, below) makes the water-based dye easy to apply. It limits the dye's penetration by partially sealing the wood, like a thin coat of finish. Two coats are necessary to control blotching (Step 1).

It's important to keep the surface wet until you wipe it, and then to wipe thoroughly. Any conditioner that's allowed to dry on the surface will seal so well the dye won't penetrate.

Two Coats of Dye

We used Transfast "antique cherry brown" water-soluble dye powder (see Sources, below). Water-soluble dye from other manufacturers will work just as well, although the color will be different. Dissolve the dye at the label-recommended ratio of 1-oz. powder to 2-qts. hot water (Step 2). Be sure to let the solution cool to room temperature before use.

On the conditioned surface, the dye acts like a liquid oil stain (Step 3). Let it penetrate for a couple minutes before wiping. The second coat of dye imparts a deeper color and a more uniform appearance.

It's tough to get uniform penetration on end grain. Fortunately, you can minimize any uneven appearance later with the colored glaze.

When you have a large surface to cover, use a spray bottle to apply the dye and a brush to spread it. Simply re-spray previously worked areas to keep the entire surface wet until you're ready to wipe it dry. Spraying and brushing also works great on vertical surfaces. Start at the bottom and work your way up.

Two Coats of Shellac

Shellac prepares the dyed surface for glazing (Step 4). It also keeps pitch sealed in the wood. Without shellac, pine's pitch can bleed into oilbased finishes, leaving fissures or shiny spots that remain tacky, especially around knots.

Apply Glaze

Glaze is nothing more than paint formulated for wiping. It's easy to make your own proquality glaze (Step 5). Artist's oils contain highquality pigments for pure, clear color. Glaze medium makes the artist's oil easy to spread and quick to dry (within 24 hours).

Glazing adds a second, separate layer of color that really makes the pine come alive (Step 6).

Topcoats

You need to protect this layered finish with clear topcoats. Any topcoat will work as long as you wait until the glaze has completely dried. To check, wipe the surface gently with a cotton rag. If it picks up any color, wait another day.