Shellac’s many attributes have kept it near the top of the finishing charts for centuries, but the only way to understand why is to mix up a batch of flakes or crack open a can. In less time than it takes to read this story, you’ll see how this bug-borne resin adds color and highlights grain quite unlike its modern competition. With just a little practice, you will also discover how you can use this fast-drying film to produce a flawless finish in any workshop situation.

Shellac plays an equally strong supporting role as a sealer. In addition to enhancing wood grain and bringing warmth to waterborne finishes, its ability to bond to anything, and allow anything to bond to it, makes it the perfect defense against any potential incompatibilities.

Of course, shellac isn’t without a few flaws. Heat and alcohol can dissolve and deteriorate shellac, making it a poor choice for any surface where you might rest a coffee mug, shot glass, or perfume bottle. With age comes decreased water resistance. The good news is that when accidents happen, shellac is easy to repair. Coats of new shellac blend with old, allowing worn, scratched and flawed areas to literally disappear.

As you’ll soon see, shellac’s pros far outweigh the cons. Here, we’ll cover all the bases for mixing and using shellac, so the first time you apply it, you’re sure to hit a home run.

Many shades of shellac
Shellac is sold in a variety of different colors. When starting out, you may want to stick with darker shellacs on darker woods (use garnet to spice up kiln-dried walnut) and lighter shellacs on light woods (blonde flakes add a hint of color to maple), but as you’ll soon discover, shellac can serve as an effective dye toner. Unlike pigment

Going Green
Shellac doesn’t exactly grow on trees, but lac, an insect secretion, is harvested from tree bark. In addition to being a renewable resource, shellac is one of the least toxic wood finishes. It is still used as a glazing agent on pills and candies.
stains, shellac adds rich, warm tones without obscuring the grain.

The best way to explore shellac's possibilities is to make a few sample boards like those shown above. To fine-tune your hues, you can apply one shade over another, combine different shellacs to make a custom blend, or add an alcohol-soluble dye. As you'll see, shellac's color will darken with each additional coat, but what you see is what you'll get—for good. Unlike some varnishes or lacquers, shellac doesn't yellow or become cloudy with age.

**Making the cut**

The first hurdle in working with shellac is understanding how to cut a pound. Don't let the terminology trip you up. As the name suggests, “pound cut” refers to the number of pounds of flakes that gets mixed into a gallon of denatured alcohol. Higher pound cuts flow thickly, dry slower, but build more quickly. Lower pound cuts flow like water, dry almost instantly, but build in thinner layers. Most woodworkers prefer cuts between one and two pounds because they leave a thinner film, but dry quickly and don’t suffer from too many brush marks. (You may also want try a super thin, one-half pound cut as a wash coat. See “Shellac the Problem Solver,” page 41.)

In most instances, you won’t want to mix up a whole gallon of shellac. This is because shellac has a shelf life. From the moment that the flakes are combined with alcohol, the resin begins losing some of its water resistance and ability to dry hard. The actual shelf life can vary from just six months to a year. When in doubt, you can test a premixed batch, or make up a fresh batch. In our shop we’ve found that a cup or two of shellac is more than enough to finish an end table or several jewelry boxes. If you need more, simply mix up a second batch.

You can dodge the scales and get right to shellackin’ (check out the “Low Tech Two-Pound Cut” tip, page 40), but making precise pound cuts isn’t difficult. All you need to remember is that the number of ounces per cup is equal to the pound cut. For example, two ounces of flakes and one cup of denatured alcohol make a two-pound cut.

To start, buy or borrow a few kitchen implements, as shown in Photo A. Weigh the flakes, pour them into the jar, and then add the alcohol. Stir the mix so that the flakes don’t clump at the bottom. A small batch usually dissolves in a few hours; larger batches can take more than a day. To be safe, mix up your shellac a day or two before you’re ready to finish. To speed things up, pulverize the flakes in a food processor, and put the jar in a spot where you can shake it up a couple times a day. When the flakes are completely in solution, strain the shellac through a paint strainer or a piece of cheesecloth to catch any impurities.
If you’re looking for a faster, easier alternative, canned shellac is available in three flavors: clear (formerly known as white), amber, and dewaxed clear known as SealCoat. The clear and amber are three-pound cuts; SealCoat is a two-pound cut. To make the clear and amber more user-friendly two-pound cut, add two parts denatured alcohol to five parts shellac.

Most shellac, flakes and premixed, contains a small amount of wax. Wax makes sanding easier, gives the finish a medium sheen, and helps level the surface during drying, lessening brush marks. However, this wax also reduces the transparency of the finish film, makes the shellac less water resistant, and can affect the adhesion of some topcoats. If you’re using shellac as a sealer, (see “Shellac the ProblemSolver,” page 41) you’ll want to buy dewaxed shellac. You can also dewax the shellac yourself by pouring a batch into a glass jar, allowing the wax to settle, and then pouring off the clear top part of the mix.

**Working with shellac: don’t stop**

Although a surface may not be ready for sanding and recoat for about two hours, it dries to the touch in minutes. In fact, it can dry quickly enough to snag your brush or pad. The secret to a smooth finish is to keep the brush or pad in constant motion. Keep moving forward as you work and don’t look back. To catch errors, set up a low raking light so that you can see the reflection of the wet finish.

If you don’t catch a mistake immediately, your best bet is to leave it until the coat dries. A light once-over with 320-grit sandpaper easily dispatches smaller marks. Instead of sanding, try blending blemishes by lightly wiping the surface with an alcohol-moistened rag.

**Choose the best applicator for the job**

Shellac’s versatility lends itself to almost every application technique; your choice really depends on the size of your project, and how quickly you want to build a film. Just realize that thicker coats take longer to dry and usually require more between-coat sanding. Thin coats require more work to apply, but are easier to control, and produce a final sheen that needs little to no rub out.

**Brush Basics**

For applying shellac onto large flat surfaces, it’s hard to beat a brush. To start, try using a one or one-and-a-half pound cut. The thinner cut builds more slowly, but reduces the likelihood of brush marks.

To prepare for brushing, pour a small amount of mixed shellac into a tray or bowl to reduce contaminant buildup. Next, wet your brush fully in denatured alcohol before you begin. This helps shellac flow seamlessly and eases cleanup. (Repeat this occasionally during larger projects to prevent any shellac from drying in the bristle of your brush.)

**Low-Tech Two-Pound Cut**

Depending on the size of the flakes, the exact pound cut may vary but this formula is a quick way to get started. For a thinner mix, simply add a little more alcohol. Instead of a thicker cut, consider applying a second coat.
then lightly shaking it to let excess shellac fall back into the container. Shellac requires gentle but quick brush strokes. Moving with the grain, as shown in Photo C, overlap each stroke by half an inch. Start a few inches in from the end, brush toward the closer edge, and then finish the rest of the panel. Work quickly to maintain a wet edge. After two hours, lightly scuff-sand the first coat with 320-grit stearated sandpaper to remove any dust or wood grain and smooth the surface. Remove any sanding residue. Apply subsequent coats the same way. Once the wood is sealed, the shellac will be easy to apply, but don’t forget that the alcohol dissolves into previous coats, so quick, smooth brush strokes are important. Shellac does correct itself, provided you don’t backbrush your work. After the first coat, sand only if you need to smooth the surface or to correct mistakes. After three or four coats you should have adequate film thickness to rub out with 600-grit sandpaper or 0000 steel wool.

Perfect Padding

Forget what you’ve heard about French polishing; a pad is a simple yet effective applicator for applying thin coats of shellac to all small and large projects. For padding, you’ll want a two-pound cut. The thicker cut stays in the core until you give it a gentle squeeze. First, place your mixed shellac into a squeeze bottle applicator. Next, construct a pad. Cut a 10-inch square of lint free cotton or linen cloth. Now, fashion a golf ball-sized lump from cotton or gauze. Dampen the center of this cloth with denatured alcohol, as shown in Photo D.

As with brushing, maneuver the pad with brisk, deliberate strokes, slightly overlapping each previous pad stroke. To minimize pad marks, touch the pad down onto the surface, move through the stroke, and raise it at the end. Recharge the pad when the shellac stops flowing (Photo E).

When the surface is covered, let the shellac dry for two hours before gently sanding with 320-grit stearated sandpaper to smooth the surface. Apply two or three more coats the same way. This time allow four hours for drying between coats. Sand again only to smooth the surface or remove finish imperfections.

Shellac the Problem Solver

Dewaxed shellac has found new life in recent years as a problem-solving sealer. You can use premixed dewaxed shellac, like SealCoat, or mix your own. Aerosol cans are perfect for sealing or finishing smaller projects. Here are four problems shellac can readily solve.

Multi-function sealer. Shellac sticks to everything, and everything sticks to shellac. This helps when refinishing antiques that might still have residues from polishes, oils, or other mystery contaminants. Similarly, shellac can serve as a sure-fire sealer between potentially incompatible finishes, such as oil stains and waterborne topcoats.

Odor blocker. A light coat of shellac can quickly fix an old piece that smells musty, or a new project that still reeks of finish months after it was applied.

Blotch resistor. Shellac seals thirsty patches of wood, and provides a base of color. Apply a half-pound cut of shellac, sand the surface, then apply stain.

Color enhancer. Some woods—figured woods included—suffer from poor stain absorption. Colored shellac can be used much like a toner or light dye stain to provide some color while enhancing the grain. Similarly, a coat of super blonde dewaxed shellac can provide the faintest hint of yellow under a clear waterborne to prevent the washed-out look that comes with most acrylics.

Denatured Alcohol

Orange shellac

2# cut

Squeeze an ounce of alcohol into the cotton core to charging the pad. The core should be damp, but not dripping.

Squirt shellac into the pad when it no longer leaves a wet edge. Tap the pad to disperse the shellac to the core.

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