

Versatile Shellac

No other finish seals and colors wood quite like shellac does

BY PETER GEDRYS

We are always searching for that perfect one-stop wood finish: It should be easy to apply, dry quickly, and color the wood at the same time. Modern combination stains and finishes have grown in popularity because they meet these needs. But to my eye they tend to impart too much color, and those that are pigment based can leave a cloudy appearance. Instead, I rely on a tried-and-tested combination finish.

Shellac's ability to impart color is unmatched by any other finish: It can add fire or glow to the wood naturally. In my classes, after padding out a piece of mahogany, I've heard students remark, "I didn't realize you could do that." They were reacting to the rich color and depth obtained using only shellac.

I'll talk about the different types of shellac available and the best methods of applying them, and give you tips on which colors go best with different types of wood.

Shellac flakes have many advantages

Buying dry shellac flakes and dissolving them in denatured alcohol has several ad-

vantages over buying and using premixed shellac. First, the dry flakes can be stored almost indefinitely without spoiling (once dissolved, shellac should be used in as little as six months). Also, compared with premixed versions, dry flakes offer a wider choice of grades and colors, and they're less expensive.

The ratio of dry shellac to denatured alcohol is known as the cut. Three pounds of shellac flakes in 1 gal. of alcohol is known as a 3-lb. cut, 2 lb. of flakes equals a 2-lb. cut, and so on.

One of the most frequently asked questions I get is, "What cut should I use?" Af-

ter using shellac for many years, I don't worry about exact measurements, relying instead on viscosity. I liken the viscosity to various dairy products: My initial mixture will be that of heavy cream; from that it can be thinned to light cream and then to skim milk. If you're a novice, this takes the exactness out of the equation and makes it easier to understand. After all, how often do you pour milk or cream?

However, for those who prefer exact numbers, I usually start with 5 oz. of flakes in 8 fluid oz. of alcohol, which is the equivalent of a 5-lb. cut. I cut this by 50% to form





the solution through a paint strainer, and you're ready to go.

Premixed shellac is convenient

Buying premixed shellac saves you the trouble of dissolving flakes and filtering any residue. Premixed shellacs commonly available at the local paint or hardware store are produced by the Zinsser Co. These include 3-lb. cuts of amber and clear shellac, and a 2-lb. cut of super blond under the name SealCoat. However, a wider selection is available under the Liberon brand and at various online outlets (see Sources of Supply on p. 44).

Waxed shellac gives an aged appearance

Shellac in its natural state contains a small percentage of wax. Grades that always contain wax are seedlac and buttonlac, while garnet and orange shellac are available with or without wax. The dissolved appearance of waxy shellac will be turbid or somewhat cloudy compared with the dewaxed types. However, waxed versions are indispensable when imitating a mellow or aged appearance. Waxy shellacs may cause adhesion problems if they are used directly underneath another type of finish such as varnish, but layers of waxed and dewaxed shellac can be intermixed without problems.

If desired, you can dewax

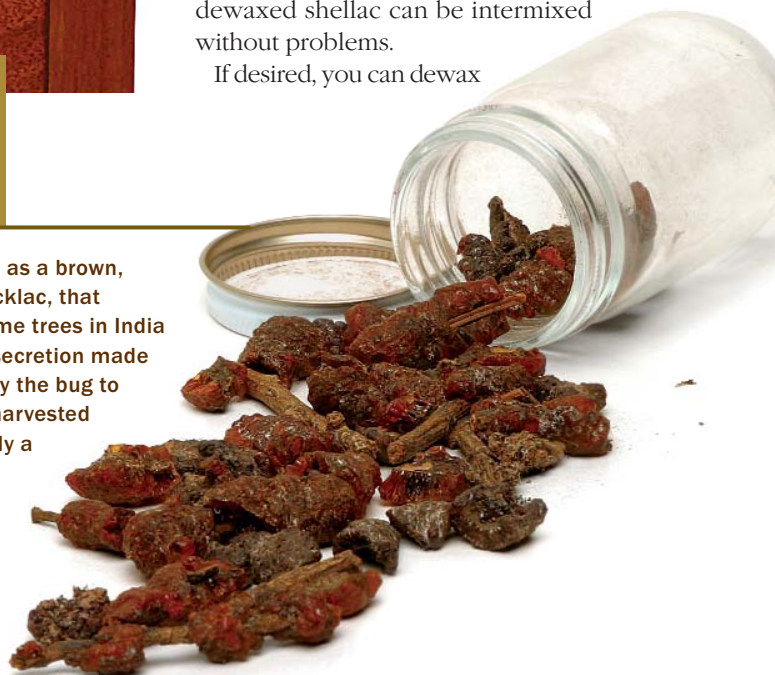
a 2½-lb. cut for the initial application, then cut this again by 60% for a roughly 1-lb. cut for brushing on the last coat or two or when padding.

To speed up the dissolving rate, I use a small dedicated coffee grinder to reduce the flakes to a powder. I then add this to denatured alcohol. To further speed up the process, I set the container of solution in a warm spot or in a warm-water bath, being careful to avoid getting water in the shellac. Stir or agitate occasionally, and the shellac should be fully dissolved in a few hours.

There will be various amounts of residue, depending on the grade of shellac. Filter

ALL SHELLAC STARTS OUT AS STICKLAC

All types of shellac start life as a brown, crusty substance, called sticklac, that appears around twigs of some trees in India and Thailand. Sticklac is a secretion made by the lac bug and is used by the bug to wrap its larvae. Sticklac is harvested and processed to form nearly a dozen different grades ranging from light-colored blond shellac to dark garnet shellac.



the shellac by letting it sit for a period of time in a warm or sunny place. After the solid wax particles have settled to the bottom of the container, carefully decant the clear liquid at the top.

Dewaxed shellac highlights color

Dewaxed shellac enhances the natural color of wood without visually impairing the grain; it is for all intents and purposes transparent. Dewaxed shellac has one drawback. Because most of the natural lubricants or plasticizers have been removed, it is harder to sand. To make sanding easier, you can add a plasticizer called sandarac, available from Kremer Pigments Inc. (see Sources on p. 44). Like shellac, sandarac is alcohol soluble and in solution is a pale, transparent yellow. It can be added in small amounts, say 10% or less by volume, to liquid shellac and can be used with other finishes without adhesion problems.

Adding color with shellac

One of the benefits of shellac is that you can use it to color wood, and the variations are endless. Applying garnet shellac to a workpiece deepens the color; buttonlac softens and mellows the appearance; orange or ruby shellac makes the piece shimmer with an inner light; seedlac imparts a deep, old brown.

You can use different-color shellacs on the same piece. On the one hand, you may want to give a uniform color to a piece made from boards with contrasting color; on the other hand, you may wish to differentiate parts of the workpiece just as you might use contrasting species of woods such as walnut and cherry.

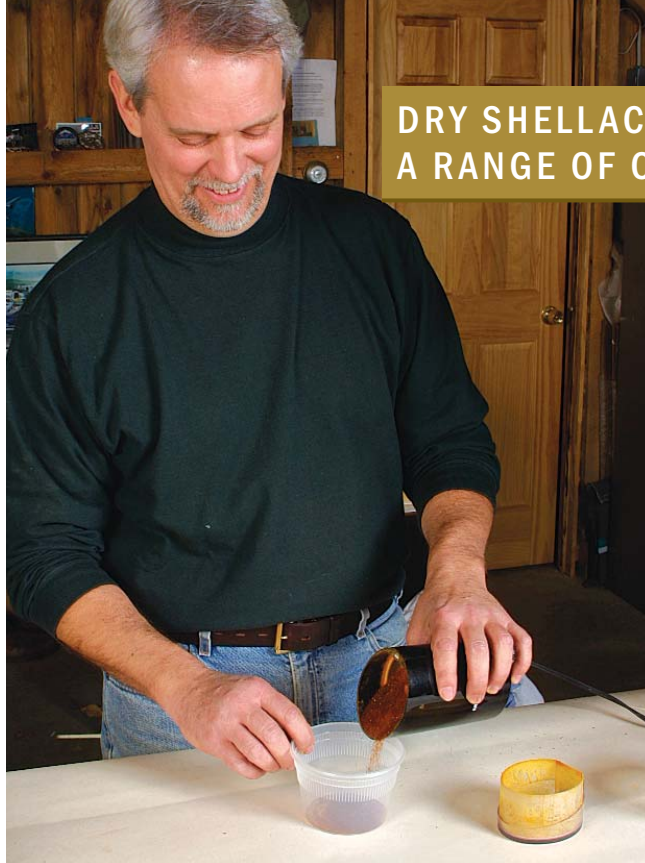
There are two other benefits to using shellac as a colorant: Because there are no stains or pigments to fade, the color will stay true for a long time. However, if you don't like the color, you can adjust it with another coat of shellac or simply remove it with alcohol.

The color effects you can achieve with shellac vary based on the wood species. The color guide at right gives a few suggestions on what shellac to apply to some popular wood species used in furniture.

Remember, this is not an exact science, and some experimenting is necessary to please your eye. Just take notes on the proportions; after a while it will become intuitive. Because shellac dries quickly, it is not overly time consuming to get a good

DRY SHELLAC COMES IN A RANGE OF COLORS

Before dry shellac can be used, it must be dissolved in denatured alcohol. Gedrys first mixes a 5-lb. cut and dilutes it prior to application (see p. 44).



1 Freshly ground. A dedicated coffee grinder reduces the shellac flakes to a coarse powder that will dissolve quickly when mixed with denatured alcohol.

A color guide to shellac



MAPLE

Finish maple and other light woods with seedlac to give an old, brown appearance or buttonlac for a softer, warmer brown.



MAHOGANY

To lighten mahogany, use dewaxed ruby or orange. For an antique appearance, use a coat or two of buttonlac.



CHERRY

To soften the red of cherry, use the greenish hue of some garnets. Enhance figured cherry with blond or ruby.



WALNUT

To neutralize the purple, use seedlac or garnet. To liven up a dull brown wood, use a ruby and garnet mix.





2 Make the cut. Weigh out 5 oz. of ground shellac flakes.



3 Dissolve the shellac. Stir the dry shellac into 8 liquid oz. of alcohol.



4 Strain the finish. After the shellac has dissolved, pour the fluid through a paint strainer to remove any impurities.



BUTTONLAC



SEEDLAC



RUBY



GARNET



APPLY SHELLAC WITH EITHER A PAD OR A BRUSH

The viscosity or pound cut of shellac must be adjusted by adding denatured alcohol to match the method of application and the step in the finishing process. When building the finish with a brush, Gedrys uses a 2-lb. or 2½-lb. cut. When brushing or padding on the final coat, he uses a 1-lb. cut.

CUT THE SHELLAC WITH ALCOHOL



Gedrys' initial mixture (seen here) is a heavy 5-lb. cut he compares to the viscosity of double cream. This can be reduced with alcohol to the desired cut, depending on what's needed.



A pad for rubbing. The two parts of a pad consist of an outer piece of cotton cloth that surrounds a folded section of cheesecloth.

finish. I could have finished a moderately sized table in the time it took me to write this article.

Two methods of application

Shellac can be applied to a piece by brushing, padding, or spraying. But for this article I will concentrate on brushing and padding techniques.

Shellac is easy to apply with a brush—

Because shellac is a thin, flowing finish, you don't need a brush with stiff bristles. White china bristles work well for the initial coat, but I usually reach for a softer, flat wash brush or a mop, both of which can be loaded with shellac to cover a large area before recharging. For the final coat or two, a brush with really fine bristles, such as manmade Taklon, will lay down a thin 1-lb. cut of shellac and leave almost no brush marks. Whatever brush you use, dedicate it to shellac so that there is no need to clean it thoroughly after each use. Let residual shellac harden in the brush, then soak it for a few minutes in alcohol before you use it the next time.

The first two sealer coats are brushed using a 2-lb. to 2½-lb. cut. One rule I follow

on a large surface is to start with pale shellac like blond or lemon. If you begin with dark shellac, there is the distinct possibility that you could wind up with a streaked surface where one brush stroke overlapped another. Remember, you're going to add color as you move along. As always, there is an exception to every rule. When doing a smaller component of a project, such as a leg, you can start with a deeper color.

SOURCES OF SUPPLY

These companies sell both premixed and dry shellac:

HOMESTEAD FINISHING PRODUCTS

216-631-5309;

www.homesteadfinishing.com

WOODFINISHINGSUPPLIES.COM

866-548-1677;

www.woodfinishingsupplies.com

WOOD FINISH SUPPLY

800-245-5611;

www.liberonsupply.com

Source for sandarac:

KREMER PIGMENTS INC.

800-995-5501;

www.kremerpigments.com

If any sanding is required at this point, it should be minimal and done very lightly. Because there is only a thin coating, you want to be sure you don't cut through to the bare wood; be especially careful near the edges. If your initial application is reasonably flawless, you can skip the sanding and start to build the coating.

To build the finish, use an approximately 2-lb. cut. Depending on the wood being used and the desired color, different grades of shellac may be used at this point. When one application is dry to the touch, simply brush on another. If you miss a spot, don't try to brush over it while it is wet because you will pull or burn the surrounding area. To avoid unsightly runs, brush off an edge rather than onto it. Depending on your touch, at least four coats can be applied in fairly rapid succession. Then set aside the piece to cure overnight. If you want to build the coating of shellac further, sand with 320-grit paper before proceeding. Be careful when you add the next layer after sanding because it will want to "grab" the surface very quickly.

Use a pad to build up layers quickly—

With a pad, or rubber, I can quickly lay thin



Padding prevents sags and runs. Gedrys applies shellac with a pad but uses a small brush to get finish into crevices and corners.

coatings that require very little sanding. As with any type of finish, a thin coat dries and cures faster than a thick one. To cut the shellac to thinner viscosity, pour some alcohol into a container and then add the shellac. You easily can judge the thickness this way. Start with shellac that is the consistency of whole milk.

I like using a pad because it offers more control and a better feel for the surface. The one universal rule is to make the pad damp, not wet. The core of the pad can be made out of cheesecloth or cotton wadding and acts as a reservoir for the shellac. I like to make the core in the shape of an ellipse or an egg before wrapping it with a fine-textured cloth. Don't use thick cloth because it will clog quickly. Old bed-sheets that have been washed many times work well.

When you wrap the outer cloth around the core, make sure there are no wrinkles on the face of the pad, as these will streak your work. The mistake I often see novices make when forming a pad the first couple of times is to make it very round and quite hard. To gauge how firm the pad should be, stretch out your hand and push the index finger of your other hand into the mus-



Brushing it on. Larger areas are easiest to finish with a brush. The larger capacity of a brush allows you to build up the thickness of a finish more quickly than using a pad.

cle at the base of your thumb: You should feel a slight deflection.

When you begin with a freshly charged pad, use a very light touch. As the pad discharges you can add more pressure. Always maintain contact with the surface of the work, but be sure not to stop the pad in one spot because this will mar the surface.

At this point you are tweaking the overall color of the piece as well as adding further body to the surface.

After allowing the finish to cure over-

night, you can buff the surface with steel wool for a softer look. For a high-gloss appearance, rub it out with oil and pumice followed by oil and rottenstone. As with any rubbing operation, be careful and mindful of the heat you are generating as you work. Last, apply some wax and buff it with a clean rag to give the workpiece a wonderful glow. □

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