



WOOD FINISHING: STAINS, SEALERS AND FILLERS

STAINING

Staining is necessary and recommended only when you wish to change the natural look of wood or wish to get a uniform color (especially if different types of wood were used.) All wood will slightly darken and take on a warm appearance when the finish coats are applied. To get some idea of what the wood will look like when it is finished, moisten the surface with denatured alcohol. This "wet" look will be very close to the finished look.

If you decide to stain the wood, the difficulty will be in choosing the right stain. There are a lot of different types of stain available, but they can be divided into four major categories:

1. Premixed oil-based stains
2. Premixed water-based stains
3. Premixed sealer stains
4. Mix your own stains or dyes

You can obtain **pigments** to be mixed in oil or **aniline dyes** to mix with water. This gives you the most flexibility to obtain the exact color you want, but it takes time and you may have difficulty in finding the pigments and dyes. **Natural dyes** can also be used. For example, a light brown stain can be made from tobacco.

Tobacco stain produces an "old pine" look. Use it on new paneling and furniture or to change the color of other soft woods, such as basswood and poplar. It will also freshen old pine, maple, hickory and birch wood during refinishing.

Make the tobacco stain 1 week before you plan to use it. Follow the following steps:

- Break up 1 plug of chewing tobacco and place in quart jar.
- Add 1 pint of clear household ammonia, denatured alcohol or water.
- Place lid on jar and store at least 1 week.

- Uncover the jar and place outdoors overnight to allow fumes to escape.
- Stain can be lightened by adding more liquid.
- Strain the amount of stain needed through an old pair of nylon hose (or similar material) to remove pieces of tobacco.

The premixed stains are easier to use and readily available. Stains of different color can be mixed together to get the particular color you want, as long as the stains are the same type (mix oil stain with oil stain or water stain with water stain). If you plan to use a water-based stain, remember that it will raise the grain of the wood which will require a post-staining step of sanding.

Sealer stains are intended to be used in a one-step finish for wood surfaces. This can be a big time saver for finishing woodwork, where a built-up finish is not necessary. The sealer stains are a combination of penetrating oil stains with either wax or varnish. For example, Minwax makes a "Wood Finish" combining stain and wax and also a "Polyshade" which combines polyurethane with the stain. These sealer stains will never give you the "rich" look of a 3-layer (stain-seal finish) hand-rubbed process, but they may be appropriate for many uses. You can also apply additional coats of shellac or varnish over the wax stains, or additional coats of polyurethane over the "Polyshade" finish for a deeper luster and more durable finish.

How do you decide what color to use? Remember the stained wood will not look like the stain in the can. The color of the wood depends on how hard, dense woods such as oak and maple will not pick up very much stain, resulting in a color much lighter than the original stain color. Soft woods such as pine and poplar, on the other hand, will absorb a lot of stain, resulting in a color very close to the darkness of the stain itself. It is always a good idea to test the stain you have chosen on a piece. To check the true color of the stained wood, look at it under strong natural lighting. Artificial lights, particularly fluorescent lights, may effect the color you see.

If you are going to stain end grain, first seal the end grain pores with a light coat of a solution made from 1 part shellac and 1 part denatured alcohol. After the shellac has dried (about 2 hours), the end grain can be stained without it picking up excessive amounts of stain and turning much darker than the side grain surfaces.

The application of a stain is easy and straightforward. If you follow the steps below, you will get consistent results.

1. Clean the prepared wood surface with a rag dampened with denatured alcohol.
2. Brush on stain liberally and uniformly.
3. Allow a short time for stain to penetrate (the longer the time you give it, the darker the wood will become).
4. Wipe off the stain lightly and rapidly trying to get an even, uniform color.
5. If the result is too light, repeat the applications by following steps 1-3.

6. If the stained wood is too dark, you can lighten it by bleaching (see section on liquid laundry bleach). After bleaching, you will need to wash the surface with water, allow it to dry, sand it smooth, and start over again with a lighter stain. You can lighten an oil stain by adding boiled linseed oil; lighten a water stain by adding water.

An alternate method to applying stain is to use a pad of lint free, soft, absorbent cloth instead of a brush. Dip the cloth into the stain and rub the stain into the wood, blending the color uniformly as you go.

SEALING

A sealer coat (sometimes called "wash coat") is often used over the stain or on unstained wood. Its purpose is to "seal" the pores of the wood to give you a smooth, even surface for the top coats of varnish or lacquer. The sealer coat will also prevent the stain from bleeding into successive coats of finish materials. You can buy a commercially prepared wood sealer or make your own by mixing equal amounts of shellac and denatured alcohol. Sealers are best applied by brush. With a full brush, apply briskly along the grain. Work rapidly as shellac dries very rapidly.

FILLING

Wood fillers are often used to fill the large pores in woods, such as red oak, or to accentuate the grain of the wood. Wood filler is a heavily pigmented oil (high solids content). To use it, thin it to the consistency of a thick paint. Spread it on the wood, brushing it into the pores. Allow it to dry, then wipe it off (wipe in the direction across the grain) with a clean, coarse cloth. Keep wiping until all the excess filler is removed.

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