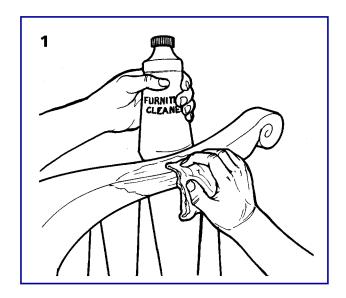
HOW-TO BOOKLET #3030 MODERN STAINS



TOOL & MATERIAL CHECKLIST

Penetrating or Pigmented Stain	Brushes
Clean Wiping Cloths	Fine (600+) Sandpaper
☐ Fine (0000) Steel wool	Mixing Bowl
■ Mixing Paddle	Sanding Block
□ Stain Brushes	□ Wood Fillers



Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in the Basics Listed Above.

Once upon a time, stains were extremely difficult to use. Color wasn't constant. The stained wood often turned out cloudy or blotchy, with glossy spots in some areas and dull spots in other areas. Mixing was a headache complete with pigment lumps and oil separation. Hours could be spent matching color.

Today's modern stains are just the opposite. The stains are easy to mix. In fact, most of them are pre-mixed in a wide range of tones. Application is fast without globs, gloss, or blotched.

Making the decision of what modern stain to use where is really today's dilemma, which is what this How-To Booklet can help you solve very quickly. First, read through this booklet. By doing so, you may be able to save time and money in choosing the stain product that you need for the project at hand.

THE BUYING CHOICES

Almost all stains can be put into one of three classifications:

- Penetrating stains. These have an oil or latex-based vehicle (the fluid in which the pigment is suspended). Penetrating stains may be brushed or wiped onto the surface to be stained. Usually, the procedure calls for brushing, not wiping.
- **Water stains.** This is a dye-type stain that colors the fibers of the wood as clothes dye would color the fiber of cotton, wool, linen, etc.
- Non-grain-raising stains. These stains are known better by the letters: NGR. As the name implies, the stain dries rapidly to prevent the wood grain from swelling.

In the family of penetrating stains are pigmented stains. The difference between the two is that penetrating stains have less pigment in relationship to the vehicle than pigmented stains. Further, pigmented stains, because of the pigment, "lay" on the surface being stained in the same manner as paint lays on the surface being painted. Penetrating stains, because of less pigment and a slight difference in vehicle, penetrate into the wood with very little pigment residue remaining on the surface of the wood. When dry, a pigmented stain will tend to hide any grain or imperfections in the wood, while the penetrating stain will tend to highlight the wood's grain and character. Therefore, when buying stain, you must take into consideration what type finish you want: one that shows the grain; or one that somewhat hides the grain but still retains all the character of a stain.

If the piece you are staining has excellent graining, and is an expensive wood such as cherry or walnut, the choice would be penetrating stain. If the piece you are staining has just so-so graining and is an inexpensive wood such as pine or gum, the choice would be pigmented stain.

Stains react different ways on different woods and you must take this into consideration when you select a stain.

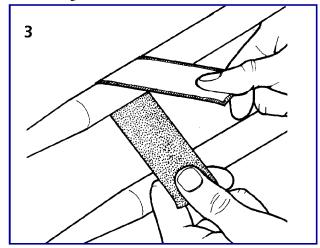
For open-grained wood such as walnut, mahogany, oak, hickory, the pigment in the stain tends to lodge and stick in the grain. The effect is pleasing, but you may not care for it. You can fill the open pores with wood filler made especially for this. Or, you can let the pigment stick in the pores and highlight the pores.

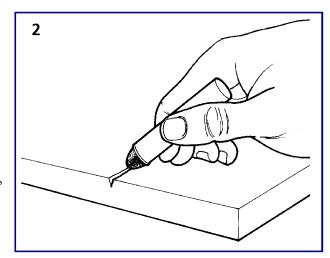
Wood species is a consideration. Softwoods such as pecan, pine, some firs, tend to darken when stain is brushed or wiped on the surface. This may be okay with you, but the degree of darkness is fast; that is, you may not be able to control the darkness of the color quickly enough. The opposite is true of the hardwoods. Hardwood does not absorb stain quickly, so you may need several coats of stain to reach the degree of darkness that you want. This means that you will have to buy more stain, perhaps, to complete the project to the color that you want.

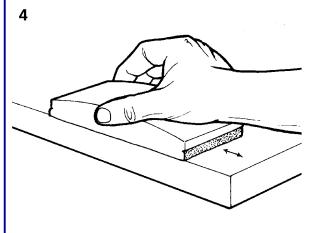
Therefore, when shopping and buying stains the procedure would be lighter stains for soft woods and darker stains for hardwoods.

As a suggestion, you may find that you get the best results from using light stains on hardwoods and simply brushing a clear finish such as lacquer or varnish onto the hardwoods.

Depending on the value of the piece (and the wood) it is recommended that you try a trial run with the finish in a spot that won't show if it turns out to be a mistake. This test is the only real way of knowing.







As a selection and buying summary:

Pigmented stains that have an oil or latex vehicle are for woods that have grain defects or problems that you want to hide. These stains are usually applied with a brush, although you may wipe them onto the surface with a lint-free cloth.

Penetrating stains are for fine woods where the grain will be highlighted. Penetrating stains, because of less pigmentation, do not have to be constantly stirred to keep the pigment in suspension in the vehicle—an advantage over pigmented stains. Penetrating stains may be applied with a brush (usually recommended) or with a lint-free cloth.

Water stains have a water vehicle—not oil. Generally, water stains are simply a dye, called aniline. The dye is packaged in a powder form; you mix it with boiling tap water.

Non-grain-raising stains utilize a denatured alcohol or methanol vehicle. The vehicle dries quickly. This stain is applied with a brush in long even strokes. Use several stain layers instead of brushing on a heavy coat at the outset.

NGR stains are recommended for hardwood, but not softwood, although they can be used on softwood. But test them on scrap before making a decision; you won't be disappointed.

Varnish stains are stains in a varnish vehicle. There is not a wide selection of these stains, usually, at many paint retailers, but those you do find probably will be suitable for your project. Varnish stains are surface coatings, and they are best suited for projects where a less-than-fine finish is good enough—such as shelving. Use a brush to apply varnish stain after the wood has been properly sanded to take the finish.

Oil stains. Those that penetrate are dyes in an oil-based vehicle. These stains are very easy to work if you are just a beginner to refinishing. It is difficult to make a "mistake."

Once you apply the stain with a brush, you'll notice a very rich and deep tone that brings out graining and other highlights of the wood.

Pigmented sealers. You can use pigmented sealers as a stain and many refinishers do so. The sealers are available in almost every paint department of a store and they are sold in both wood tones and clear finishes.

Mix-it-yourself stains. Anything that will color wood can be a stain. For example, you can put galvanized nails in a bucket of water. When the nails rust and discolor the water, the water may be used as a stain. Other "innovations" include chewing tobacco mixed with alcohol; shoepolish; dirty auto crankcase oil.

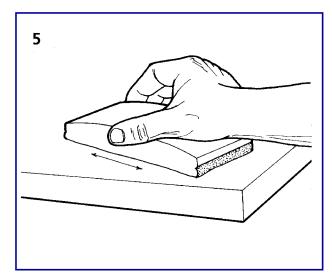
Pigments that you buy in tubes and mix with alcohol, oil, or water are more practical, and the illustrations show how the mix is made.

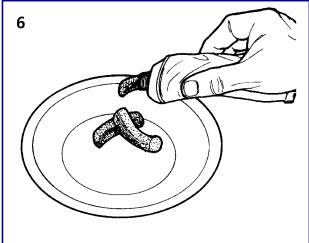
WORKING WITH STAIN

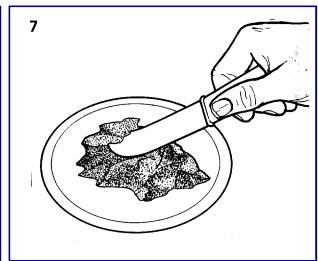
Below are a few finishing/refinishing tips that you may find handy when working with stain:

Work in a "planned" finishing area. The area should be well-lighted, well-ventilated, and free from as much dust and dirt as possible.

Working temperatures are important. Ideally, the temperature should be about 70-degrees F. Avoid temperatures 50-degrees or under, or temperatures above 90-degrees F. Some manufactures rate finishes by temperature. Be sure to check the label of the finish container.







Also beware of high humidity, which can cause stains to remain "wet" for longer periods. This includes other finishes, too.

Don't work near forced air heating/cooling ducts. The air can stir up lots of dust that will settle into wet finishes.

Be careful. Many finishes are volatile.

9 EASY STEPS TO A SUPER-DUPER STAINING PROJECT

Regardless of the type of stain you select, the procedures for preparing the project and staining it are basically the same. Follow the step-by-step instructions in this booklet. The mixing steps, of course, can be left out if you plan on using a ready-to-apply stain.

Clean the surface to be stained. Try furniture cleaner first, if you don't really have you heart set on applying stain. Often a cleaner will restore the finish without need for staining.

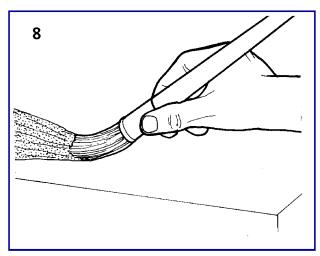
If the old finish is in bad condition, it should be removed. Use paint & varnish remover and give the remover time to work—at least 20 minutes—before you start scraping. You can retard the evaporation of the remover by covering the coated surfaces with aluminum cooking foil. Use plenty of paint & varnish remover. Brush it one way once. If you are removing a polyurethene varnish and the commercial remover won't touch it, try using the remover auto paint shops use to take off enamel and lacquer finishes. The shop may sell you a small amount for not too much money.

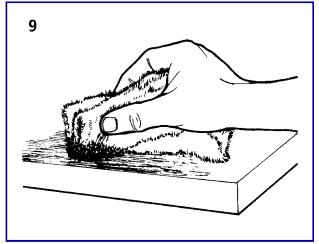
- Fill any cracks, dents, and dings in the wood's surface. If you will fill the pores of the wood, do so at this time with wood filler made for this purpose. Color the filler to match the wood tone. But know about fillers: wood plastic or wood putty is used to fill holes. Wood filler, for wood grain, is paste-like and is called "wood filler". The filler will take the stain color.
- Sand rounds, such as chair legs, rungs, backs, etc., with strips of abrasive about 1-1/2- to 2-inch wide—shoeshine fashion. Start with a medium-grit paper and finish with a fine-grit. You can get into fine turnings with a rope of steel wool, also used shoeshine fashion.
- Sand flat surfaces straight forward and backward, as illustrated in the drawing. Use a sanding block so the abrasive doesn't dig into the wood and make rough and irregular

surfaces. Again, start with a medium-grit paper and finish with a fine grit. You may want to use an orbital power sander for the first cut, but finish by hand-sanding. Never, under any circumstance, use a belt or disc sander to remove wood prior to staining/finishing it.

- Sand across the surface, as illustrated in the drawing as a final sanding step. Running the sanding block slightly at an angle makes the smoothest surface. You also can very lightly dampen the wood with water to raise the grain. Let the wood dry for about 30 minutes before you sand the wood again.
- To mix stain, squeeze a little gob of pigment into a dish. You don't need much stain.

 Then, with a kitchen case knife, mix the stain from its ribbon-like form into a smooth paste.
- Add boiled linseed oil to the pigment and mix. Boiled linseed dries faster than raw linseed oil.
- 8 Brush on the stain in one direction.
- Wipe and tone the stain to the depth you want to finish to be. Wax or clear varnish.





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