

Milk Paint

A traditional painted finish that improves with age

BY
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Woodworkers have used milk paint since antiquity. It remains a desirable finish today for the same reason it was favored by the ancients and every generation of woodworkers in between. Milk paint is quick, easy and forgiving. It results in a rich, lustrous and complex finish that improves with time. Still, it can be applied in an afternoon. Milk paint is not difficult to use, but it is different from regular paint. And to get the best results, you need to understand those differences.

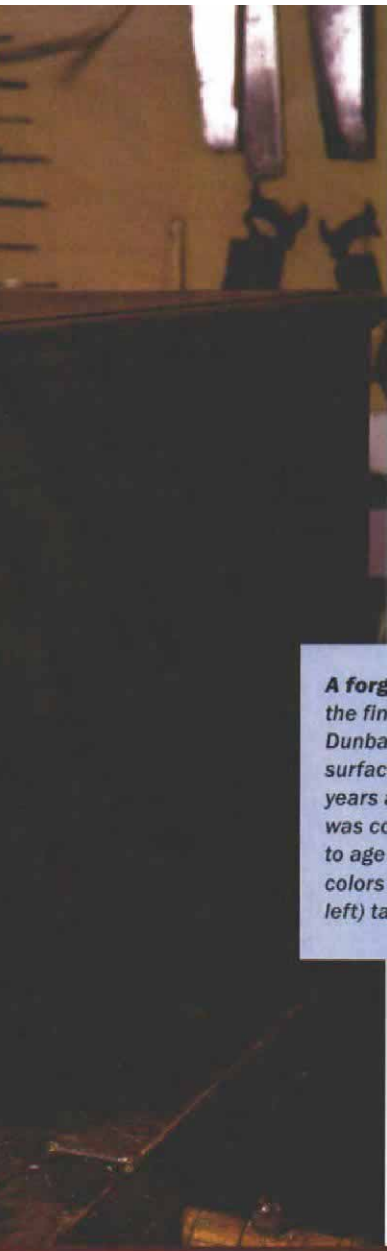
Milk paint does not chip like regular paint, nor does it pro-

duce the boring, perfectly uniform color of modern products. Instead, it has subtle differences of shading that make it much more like the lead- and oil-based paints used in centuries past. As a piece of furniture finished in milk paint ages, worn paint becomes polished and takes on different levels of sheen. The final effect is subtle, lively and complex. Because of the way this wear plays with light, a milk-paint finish actually gets better as it ages.

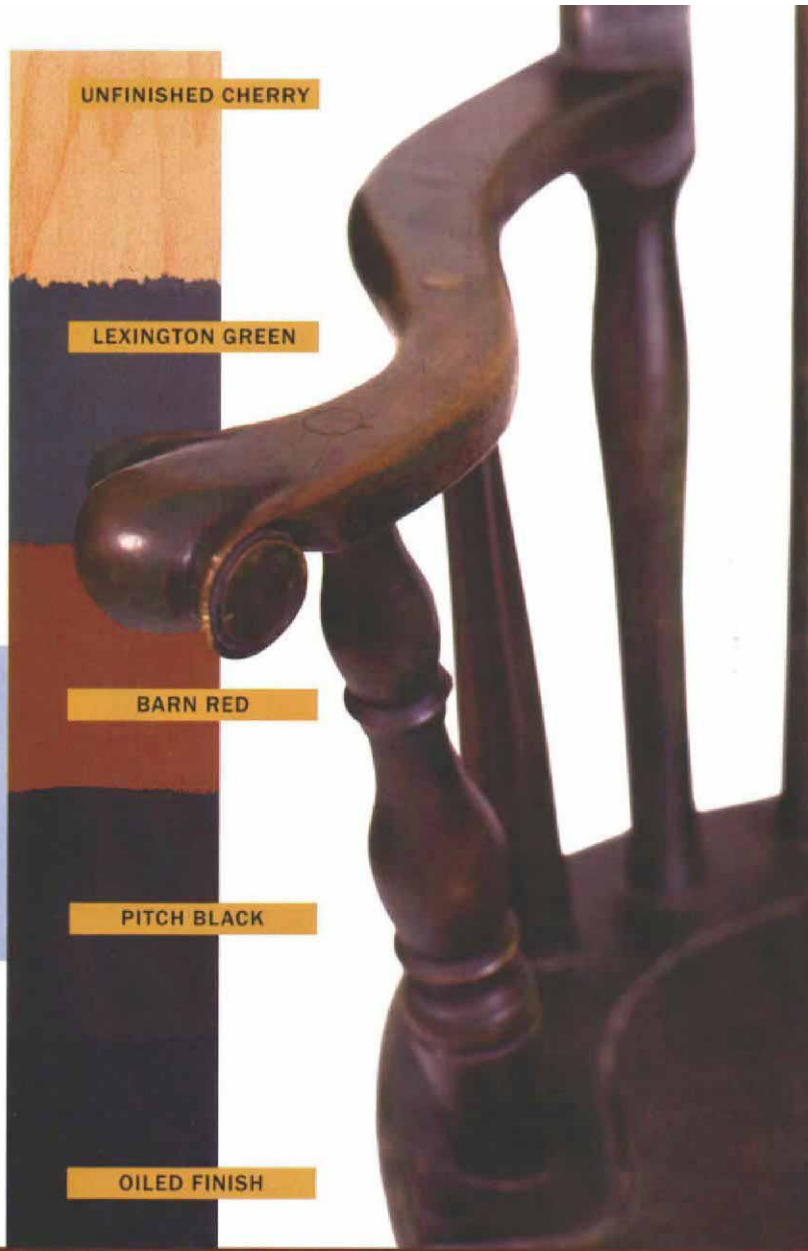
Milk paint is nothing more than a mixture of lime, casein, clays and any one of a variety of earth pigments. In the past,

woodworkers mixed their own milk paints using simple formulas handed down from one generation to another. Today, it is far easier to buy it from The Old Fashioned Milk Paint Co. (436 Main St., Box 222, Groton, MA 01450-0222; 978-448-6336). The manufacturer offers a palette of 16 different colors.

The paint arrives in powder form and is mixed with water. It has a distinctive smell, but it is not disagreeable. There are no fumes during use, and it can be washed down the kitchen sink when it comes time to clean up. The manufacturer warns that prolonged exposure to lime can



A forgiving finish that wears well. Long the finish of choice for chair maker Mike Dunbar, milk paint provides a deep, textured surface to the blanket chest at left. Eighteen years ago, the rocker (above and at right) was covered in three layers of paint, then left to age with distressed dignity. The signature colors of milk paint (see the Shaker boxes at left) take on a beautiful patina as they age.



burn wet skin and injure eyes. In 25 years of use, I have never experienced either of these problems. I think of the finish as perfectly safe.

What makes milk paint so different from more common products is the fact that milk paint is water based. Oil- and latex-based paints are much thicker than milk paint and sit as a skin on the surface of wood. When struck or scratched, these paints will chip. Being water based, milk paint has far less body and lays on in thinner coats. Also, much of the water-based milk paint soaks into the wood, so it does not chip. In

normal use, it will only wear.

Milk paint bonds well only to fresh, raw wood or to itself. I have never had good luck using milk paint over another finish. If a chair has been left unfinished for a long time so that the exposed wood has case-hardened or if areas of the chair are sealed from dirt and oil from human hands, I don't use milk paint.

On the other hand, there are a number of neat tricks available when using milk paint. New colors can be created by mixing the contents of different packages. A favorite finish among chair makers is to paint a chair with several coats of different



An easy mix. For the blanket chest (above left), powder and water were mixed in equal amounts. But milk paint can be thinned even more to create a colored wash or wiping stain.

SHAKE, SPRAY AND FILL



Shaken, not stirred. In a jar salvaged from the kitchen, the author mixes paint by shaking it as a bartender would mix a drink.



Time spent now is saved later. Prewetting the wood raises the grain. Sanding leaves a smooth surface ready to absorb paint.



Choose fillers carefully. Milk paint won't adhere to prefinished surfaces, but it will bond to a latex filler.

colors—the most common sequence being Lexington green, barn red and pitch black. Over time, the wear caused by repeated use will cut through the various colors, creating a close approximation of the old paint that is so prized by antique collectors. Pitch black over barn red produces a subtle tortoiseshell appearance.

You can also vary the results by changing the amount of water you add. Thinned with one-and-a-half parts water to one part paint, it works well as a colored wash. Thin it even more, and it makes a nice, colored wiping stain. On reproduction pieces made of cherry, I frequently apply a coat of red mixed this way. Brush the mixture onto only one area at a time, let it sit a minute and wipe away the excess with an absorbent cloth.

Gearing up to paint

As I said, to make milk paint, just add water to the powder. The manufacturer recommends a one-to-one mix. I mix it in a clean, wide-mouthed jar. The wide mouth makes it easier to dip the brush. You can mix the paint with a stirring paddle driven by an electric drill, but I just shake it up like a bartender making a whiskey sour. The action of shaking will result in a paint that is frothy and full of air, like whipped cream. Let it sit for about an hour to allow the air to escape. The solids will settle slowly, so stir it before you start painting and regularly throughout the process.

If you want a smooth surface, strain the paint through an old pair of panty hose or a strainer purchased at a paint-supply store. Unstrained milk paint leaves a slightly grainy finish. It is more matte, like an exceedingly fine sand paint.

Once a packet has been opened, the powder will slowly absorb moisture from the air



A cheap brush is all you need. A natural bristle brush—bought for \$1 at the local hardware store—is used to apply all coats.

and lose its ability to bond with wood. Therefore, never buy large quantities, only what you need. The unused product will last a lot longer if you seal the bag carefully and store it in a dry environment.

Mixed milk paint also goes bad. It is a good idea to use it only on the day it is mixed. If you are not able to complete the finish in one day, you can stretch the mixed paint's working life by keeping it in the refrigerator. After two days, throw it away.

I generally prepare my project while the froth is settling out of the paint. Milk paint has almost no body and will not fill small holes the way oil or latex will. If your project has any blemishes, fill them with a latex filler, which will accept the paint,

Because milk paint is water based, it will raise the grain of the wood, making it necessary to sand between coats. To save time, raise the grain well before the first coat, using a spray water bottle, available at any hardware store. The trick is to wet the surface thoroughly but not as if you were washing a car. If the water puddles or runs, you are being too liberal.

During the wetting, any glue spills or smears that would pre-

vent the milk paint from bonding will become visible and can be removed with a scraper or pocketknife. Allow the surface to dry completely. Then before applying the first coat of milk paint, finish-sand the wood and dust it with a clean, soft cloth.

The first coat seals, and the second coat covers

The manufacturer recommends applying the paint to a wet surface, but I skip this step because of the prewetting and sanding procedure I just outlined. In my experience, the water used to moisten the wood thins the paint so much that a third coat is



Excess paint turns to dust as it dries. A gray Scotch-Brite nylon pad knocks off any rough spots in the second coat.

usually required for complete coverage. So you end up doing more work in the long run.

When it comes time to paint, wear an apron to protect your clothes and put down a layer of newspaper or builder's paper to protect your workbench. Milk paint dries quickly and is difficult to remove once it dries.

Milk paint can be applied with a natural bristle brush—the cheap ones with unfinished wood handles and blond bristles. During the first coat, numerous bristles will pull loose and stick in the paint. Flick them out with your fingernail. If you miss any, don't worry; they brush away without leaving a blemish when the paint is dry.

Milk paint draws into the wood almost as quickly as it makes contact. This means that you cannot successfully draw it as you can an oil- or latex-based paint. The action is more like daubing. Do not let milk paint puddle on the wood. Brush it vigorously and work it to a thin film so that it spreads and absorbs uniformly.

Fortunately, even if the paint puddles or runs, you still won't have a blemish in most cases. When the paint dries, the thick areas become crusty. Generally, excess dried paint will brush away as a powder. At worst, you may have to break up the crust with your fingernail.

The tendency of milk paint to soak into the wood makes it difficult to cut in—the process of drawing a fine line of paint with a brush. It is not impossible to pick out areas or parts in a different color, but you do have to be careful. If possible, paint different-colored parts separately before assembly.

Milk paint dries through evaporation. This means that on large pieces, some sections will dry before you even get started on others. It's important that you allow the entire piece to dry completely. Drying time is a



Thinned linseed oil over flat paint. A mixture of five parts boiled linseed oil and one part paint thinner is brushed on as a final coat. Excess is wiped away with a lint-free rag.

function of the shop's environment and will take longer on a muggy summer day than in a heated shop in the winter.

The first coat will look like something the cat dragged in. It will be splotchy and uneven. This is no time for a faint heart. If you are trying to achieve a very smooth surface, rub down the first coat with a maroon Scotch-Brite nylon pad. You can use 000 steel wool, but it leaves a lot of steel dust.

Rinse out your brush with running water and store it in a jar of water, so any paint left on the brush doesn't dry. Before applying the second coat, remove excess water from the brush by wiping it over the paper on your workbench.

Because the paint is no longer being absorbed so quickly, the second coat usually covers in less time than the first. This time the paint flows more like an oil-

or latex-based product. You still need to spread the paint in a thin, even coat.

As with the first coat, the second coat of milk paint can send the first-time user into fits of panic. The paint dries dead flat—flatter than anything you have ever seen—and you can still see brush overlaps and areas that you touched up. Again, have courage. If you want a very smooth surface, rub the second coat with a gray Scotch-Brite nylon pad. Or rub hard and vigorously with a soft cloth.

Oil overcoat holds everything down

An oil overcoat has two purposes. First, it pulls the whole finish together and gives it a darker but deeper rich color and luster. Second, it protects the finish from spills that can cause spots on raw milk paint. I mix roughly five parts boiled linseed oil to

one part paint thinner. Apply the mixture with a cheap natural bristle brush. Wet all of the painted surfaces on the piece. Overlaps and thin areas in the paint will stand out for several minutes, but they slowly blend to a uniform color. Let the oil stand for about 10 minutes. Then wipe off as much as you can with a soft, lint-free rag. Allow the oil to dry for two days before using the piece.

Some people apply a coat of wax after the oil dries, but I prefer to leave it as it is. The young finish is beautiful but has no character. Character develops with time. Use the piece as you would normally, and enjoy the increasingly subtle and complex finish. □

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