



A stunning black-over-red milk paint finish

BY ELIA BIZZARRI

Milk paint is an ancient finish concocted from milk curds, lime, and pigments. By the time Windsor chairs had their heyday back in the 18th century, thicker and more efficient paints had long since replaced it. But in the last few decades there's been a revival of milk paint, and it's now often seen on Windsors and other furniture. Why?

If most paints are a wool coat, milk paint is a silk dress. Exceptionally thin, milk paint showcases every pore of the wood. It also allows various layering effects, like the black-over-red treatment I'll describe here. The red glows through the black, adding depth and warmth. Milk paint is completely non-toxic.

Beware of imitations. Paint companies have jumped on the milk paint bandwagon, producing premixed "milk paints" that are merely flat acrylic paint, lacking milk paint's thinness. True milk paints come in powder form and once mixed with water they last only a week (and in the fridge, at that). The brand I use is Old Fashioned Milk Paint (milkpaint.com).

How to mix the milk paint

When mixing milk paint, getting the right viscosity is critical, and each color and brand of milk paint requires a different ratio of water to powder. A good starting place is equal parts powder and hot water; you can add more water later if needed. Powder particles will dissolve more completely if you mix the paint thoroughly, let it sit for an hour, and mix it again. Strain the paint through a conical strainer to remove clumps and foam.

To measure the paint's viscosity, you can use a viscosity cup, or you can make one from a plastic soda bottle. First cut the bottle in two at the waist. Then drill a $\frac{5}{32}$ -in.-dia. hole in the cap and remove any resulting burrs. With the cap pointing down and a gloved finger over the hole, pour in half a cup of paint. Remove your finger and count the time it takes for the paint to flow out in a steady stream (don't count the dribbles). Nine to 11 seconds is about right.

For the first coat of red, I mix in some adhesion additive (Milk Paint Extra-Bond), available from milk paint companies, which helps the first coat bond to the wood. The resulting coat looks like plastic, so only use Extra-Bond in the first coat.

MIXING UP MILK PAINT



Pour in the powder. Add water until the mix seems about right. The exact ratio will differ by color and by the brand of milk paint.



Strain the mixture. After stirring well, pour the paint through a conical paper strainer to keep lumps and foam out of the mixture.



High-tech viscosity gauge. To make a device to measure viscosity, cut a plastic soda bottle in half at the waist, then drill a $\frac{5}{32}$ -in.-dia. hole in the lid.



The gauge in use. Cover the hole and pour in $\frac{1}{2}$ cup of paint. Uncover the hole and see how long it takes the paint to flow out. Nine to 11 seconds is about right.



Make the first coat stickier. You can increase milk paint's adhesion to bare wood by using an additive like Extra Bond. Mix in one part additive to two parts milk paint.

Brushing tools and techniques

After raising the grain with a moist rag, I lightly sand with fine sandpaper, then begin to paint. I use a $1\frac{1}{2}$ -in. Purdy sash brush. The amount of paint on the brush directly affects the quality of the paint job. Too much paint causes drips that then dry into a flaky, crusty layer. A drier brush is a safer (if slower) option. In addition, the smaller the surface being painted, the drier your brush should be. A good starting place is to dip the bristles $\frac{1}{2}$ in. into the paint, wiping one side off on the edge of the can. Make sure you have good light; when possible I prefer to paint outdoors.

Start the first coat by painting an obscure portion of the piece, practicing your brushwork technique there before moving to

more prominent areas. The brush will leave a puddle where it first touches the work, so put the puddle somewhere easy to access, away from corners. Apply the paint in any direction that is efficient. Work the paint out over more and more of the surface until your brush is dry, then go back over the initial puddle. The more you work the paint, the smoother the surface will be. Your last strokes should all be in the same direction, usually parallel with the grain.

Wash your brush, and let the paint dry three hours between coats. The paint exaggerates any surface defects. After the first coat, sand any raised grain and scrape down nicks and steam dents. Cutting completely through the paint to bare

LAY ON THE UNDERCOATS



First raise the grain. Dip a rag in water and moisten all the surfaces you'll be painting.



Then knock it down. Lightly sand all the surfaces of the piece with fine sandpaper to smooth back the raised grain.

wood is common. It usually takes two to three coats of red to completely cover the wood surface.

Black follows red

The black milk paint is mixed just like the red. Application is the same, too, but with one added factor: Too much brushing can soften the red undercoats, mixing them with the black and causing a loathsome brown mess. Getting a good amount of paint on your brush (but not too much) and landing just the tips of the bristles onto the work will prevent this problem. If you do get mixing of the red and black, you can sometimes fix it by dipping your brush in the black paint again and gently applying more paint over the area. While you are learning the technique, it may be useful to lay down a thin coat of shellac between the red and black paint layers to prevent them from blending.

A final streaking coat of black paint comes next, covering roughly two-thirds of the surface and producing an effect like graining. This creates visual depth and covers any spots missed during the first black coat. The goal is to land just the tips of the bristles so that only half of them touch the wood, leaving

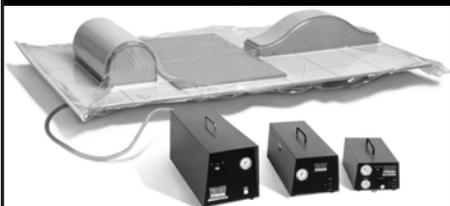


Now the fun part. Making sure you have good light to paint by, apply the first red coat. For the legs, Bizzarri uses a flipping motion perpendicular to their length. For flat surfaces like the tabletop, make the final strokes along the grain.



Post-paint touchup. When the first coat of red is dry, examine the piece for flaws in the wood's surface. Scrape or sand them, then apply another coat of red.

Vacuum Pressing Systems, Inc.



The leader in vacuum technology for woodworking offers innovative products for:

**VENEERING • LAMINATING
CLAMPING**

vacupress.com

Vacuum Presses, FlipTop Tables, Veneering Accessories and Videos

553 River Road, Brunswick, ME 04011 • 800-382-4109

**Woodworking
& Carving Classes**

Alf Sharp • Graham Blackburn
Alex Grabovetskiy • Ray Journigan
• Matt Kenney
• And more...



Camden, Maine
"Jewel of the
Maine Coast"

MaineCoastWorkshop.com

One gauge does it all!



Setting up a router table for cutting dados or grooves can involve a lot of time-consuming trial and error. Rockler's Router Bit Center/Depth Gauge helps you achieve accuracy more quickly and easily. It lets you set the fence a precise distance from the center of the bit, and it guides you to the perfect cutting height – so you can *create with confidence*.

Sign up for our emails to get everyday **FREE SHIPPING** on orders over \$39!
For details go to rcklr.co/1015

For a store near you or free catalog:
Rockler.com | 1-877-ROCKLER



Router Bit Center/Depth Gauge (55010) \$19.99



ROCKLER®

CREATE WITH CONFIDENCE

**Oneida®
Air Systems**

The Industry Leader in Dust Collection

**SUPER DUST DEPUTY®
CYCLONIC PRE-SEPARATORS**

**For 1-3 HP Single Stage
Dust Collectors**



- Pre-separates 99% of dust & debris before it reaches your collector
- Maintains continuously high airflow to your tools
- Saves money on replacement filters
- Eliminates downtime needed for filter and bag cleanings

**Turns your single stage
collector into a super
cyclonic collector**



Dust collector, hoses and drum not included.

U.S. Pat.
7282074,
D703401

oneida-air.com

MADE IN THE USA SINCE 1993

BRING ON THE BLACK

First a full coat of black. Brush on the first black coat as you did the red coats, but be careful not to overbrush, which can soften the undercoats and muddy the color.



Now for a partial coat. The second coat of black is intentionally mottled, which lets more of the red show through in places, producing the somewhat uneven appearance you're after.



streaks. This may sound tricky, but in fact the streaking coat hides irregularities in the first black coat, gracefully covering any mistakes. To ease the learning curve, a graining brush can be made: cut back $\frac{1}{4}$ -in.-wide sections of an old brush's bristles so they alternate with $\frac{1}{4}$ -in.-wide sections of full-length bristles.

Once dried, the paint looks like chalk and feels like fine sandpaper. Burnishing it with abrasive smooths the finish, adding sheen and visual depth. I start with a maroon Scotch-Brite pad and end with 000 steel wool, rubbing every surface hard with the steel wool until it gets shiny. It is not my goal to create a "worn" surface, but any red, or even wood, that shows through at the edges and high points only adds visual interest.

Milk paint oxidizes over a matter of years and becomes rock hard, but the finish is rather soft in the interim and needs some protection. Any topcoat can be applied over the paint. Wiping varnish is lovely, but I brush or pad on shellac, then rub the shellac down with steel wool dipped in carnauba wax. Instead of finishing up with paste wax, which leaves white spots in the wood pores, I use a liquid wax made by Bioshield. □

Elia Bizzarri builds Windsor chairs and tables in Hillsborough, N.C.



Burnish the surface. After letting the final coat of black paint dry at least overnight, give it a thorough burnishing. First use a fine Scotch-Brite pad, then switch to 000 steel wool wielded with very firm pressure.



Shield the paint with shellac. Brush on a coat of shellac to create a barrier to protect the paint in the months before it cures to its full hardness.



Wipe on wax. Paste wax would leave white spots in the pores, so liquid wax is a better choice.