MILK PAINT DIRECTIONS

Very Important: ***Please read*** *this Entire Direction Sheet* ***before*** *using this product.*

Porous Surfaces:
Milk paint, like all water paints, adheres best to a porous surface, such as bare wood or masonry.

Nonporous Surfaces:
Our Extra-Bond additive will help the milk paint adhere to MOST clean, sound nonporous surfaces.

SIMPLE TO USE

1} **Mix:**
Measure about equal amounts of water and powder into separate containers.
The one-pint package contains about 1-1/2 cups of powder, and when mixed with 1-1/2 cups of water will make about 1 pint of paint.
(Note: warm water helps.)

2} **Apply:**
Apply with a dry brush, roller or spray gun. Natural bristle brushes are fine, but foam brushes may require less effort and leave fewer brush marks. Milk paint is naturally somewhat streaky in color. This is normal. The most even color is achieved by spraying. Next best for evenness is by roller application. Again, you may find that foam rollers are easier to control. For spraying, paint should be a little thinner than for brushing, and should be strained. Spray with conventional spray equipment at about 30 lbs. pressure. Adjust pressure and nozzle to get a good paint film, not dry and not runny. With a little practice you should be able to spray a Windsor chair in about 3 or 4 minutes. Remember always wear proper protection when spraying any paint.

3} **Clean up:**
Clean all tools now with water and a Scotch Brite pad so that the paint doesn't dry on them.

MIXING TIPS

Small Amounts:
When mixing small containers of the paint by hand it is easiest to make a paste of the powder with some of the water and stir until smooth, like making gravy, using a rubber spatula or paint stick. Then gradually add more water until you reach the desired consistency.

Large Amounts:
When mixing up larger amounts it may be easier to mix equal amounts of water and powder together using a wire paint paddle on a drill or similar method, on lowest speed, being careful not to mix too fast which can create foam.

Timing:
Mix thoroughly for 2-3 minutes. Then let stand for 10-15 minutes so everything has a chance to disperse completely.

Strain:
Sometimes powder lumps don't fully dissolve. You may want to strain the mixed paint through a paper mesh paint funnel, a piece of cheesecloth, or, better still, a piece of nylon stocking.

Stir:
Stir paint every 10 minutes or so while using, and add more water to maintain proper consistency if the paint thickens.

Best-Used Fresh:
Milk paint is always best mixed up fresh. True to original formulas no unnatural preservatives or extenders are added, and due to the organic nature it can thicken and gel up over time, so it is best to mix up what you plan to use that day if possible. Unused paint powder can be stored indefinitely in a container with an airtight lid.
If you happen to have leftover paint, or need to wait a day to finish your project you may keep any unused paint overnight in a sealed container in the refrigerator (even a plastic wrap cover held in place with a rubber band is fine). It keeps best if mixed on the thinner side, even with a thin layer of water put on top of the paint mixture.

MILK PAINT / Chalk Paint
PAINTING PROCEDURES

(A) POROUS SURFACES *PAINTING PROCEDURES* -- *New wood or other porous surfaces such as masonry*

Note:
No primer is necessary - the first coat acts as its own primer on most softwoods and open-grained hardwoods. However**, close-grained hardwoods such as maple or birch will require an initial coat of milk paint with Extra-Bond** added, as in "B-2"

A.1} **Clean:**
Wipe down the item with a damp rag to remove any dust and to pre-dampen the surface.

A.2} **Seal:**
Then, seal knots, if any (optional) with shellac (apply first coat of milk paint while the shellac is still tacky) OR paint knots with a mixture of prepared milk paint with Extra-Bond added, as in "B-2" below. You may also add the Extra-Bond into your entire first coat if desired.

A.3} **First Coat:**
Paint the entire item with a first coat of milk paint.

A.4} **Second Coat:**
After an hour or more, if desired, you can rub down the first coat lightly with a Scotch-brite pad, fine sandpaper, or non-oiled steel wool. Now, if needed, you can apply a second coat of straight milk paint.

A.5} **Finished:**
If you like the look and the rough texture, you are finished!!

A.6} **Optional:**
After a couple of hours, or overnight, you may wish to rub down to a satin-smooth finish and/or "distress" the finish. You can rub down the surface as in No. 4 above or do any type of distressing at this time.
Be sure to try any of these techniques on a test piece to be sure you will like the end result.

A.7} **Prevent Water Spotting:**
We recommend sealing the paint on any surface that is susceptible to spills or in a damp area or if you will want to be able to wash the surface. Without a sealer the paint is fine but it will water spot and readily absorb dirt. Any sealer will work over the milk paint, but again, it is important to test the finish over a painted scrap to be sure that you like the end result. Penetrating oils such as linseed, Tung, or blended oils like Watco Danish Oil will deepen the color considerably, but are beautiful over the milk paint, especially on a piece of furniture such as a chair. Wax is fine too, but may not protect enough against coffee cup rings, for example, on a tabletop. Clear gel finishes and most solvent based finishes usually work well as sealers but like oils and waxes, do darken the paint color, and can tend to yellow a bit which may be of concern if you are using a white milk paint. Look for a non-yellowing Water White Clear topcoat to avoid yellowing over white & lighter toned milk paints. An oil or solvent-based sealer may be the best option for kitchen cabinets. On floors use a sealer meant for floors for best protection.

(B) WALL PAINTING PROCEDURES
New wallboard and new plaster

B.1} **Prepare Surface:**
On sheetrock or masonry that has joint compound over joints and nails, "joint banding" or "photographing" may produce problems caused by the differences in porosities and surface texture of the face paper of the sheetrock or the roughness of masonry and the smoothness of the joint compound. When viewed in direct lighting, the joints may be visible. To avoid this phenomenon,
an initial coat of "Sheetrock First Coat" or equivalent flat latex wall primer (available at most paint stores) is advisable. We have also had good luck with AFM SafeCoat New Wallboard Primer.
Note: We do NOT recommend using primer-sealers with stain blockers such as Kilz or Zinsser Bin. Be sure to follow the manufacturer's recommendations regarding cure time of plasters and primers before moving on to using the milk paint.
Also, additives in some modern plasters may inhibit proper adhesion of the milk paint in some cases, which is another reason that we suggest the use of primers for plaster as well as sheetrock surfaces.

B.2} **Extra-Bond:**
To use the Extra-Bond, first mix the milk paint with water according to the directions in "Simple to Use" mixing section, then add an equal amount of Extra-Bond, and stir the two liquids together. You may actually use as little as one part Extra-Bond to two parts of milk paint, but better adhesion may be achieved using equal parts. **Next, after the first coat is completely dry, paint a second coat of straight milk paint. (Extra-Bond is not necessary in the second coat.)**

B.3} Seal, if desired, as in "A-7," above.

(C) NON-POROUS SURFACES *PAINTING PROCEDURES*

Previously painted or otherwise finished surfaces, any other non-porous surface such as glass, metal, enamel or pre-primed material.

Note:
Unless you know the condition of the surfaces beneath previous coats of finish, we do caution you about the use of milk paint over multiple layers of paint that may have been applied without proper cleaning beforehand. Milk paint dries very rapidly and shrinks in all directions while drying. This can pull on the previous layers quite strongly; enough in some cases to cause weakly bonded under-layers to peel off, thereby creating serious problems.
We also **do not** recommend using milk paint over primer-sealers with stain blockers such as Kilz or Zinsser Bin.

C.1} **Prepare Surface:**
Good finishing practice states that any surface to be painted or repainted must be cleaned and dulled, not shiny. All grime should be removed with a washing soda such as T.S.P. and shiny surfaces should be scuffed up with sandpaper. Surface must be clean, sound and free of oil, grease, dust and dirt. By ignoring this practice, the new paint may not adhere well and future coats could peel off when repainted.

C.2} **Test Surface:**
For previously painted multiple coated surfaces, it is very important to also test the layers of paint for adhesion to each other. This is to be sure that the old paint won't peel off and take the new paint with it. First, cut a one-inch long "X" in the old paint film with a razor blade or sharp knife. It's best to do this in a few different areas. Then apply a strip of Scotch tape or masking tape over the "X", and rub the tape on firmly. Then pull it off quickly. If the old paint comes off with the tape, you have poor adhesion, usually created from re-painting over grime.

C.3} **Remove Old Paint:**
If the old paint films have poor adhesion, we do not recommend painting over with any water paint, including milk paint. The old paint should be removed by stripping or sanding and scraping. If you don't remove it, the new paint may lift off the old paint, at least in some areas.

** WARNING! If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-880-424-LEAD or log on to www.epa.gov/lead.

C.4} **Neutralize:**
On any surfaces that have been chemically stripped of finish, be sure to neutralize any residual chemicals by wiping the surface with a 50/50 vinegar and water solution
prior to re-painting.

C.5} **Prime Metal:**
Raw metal should be primed with a rust inhibiting primer.

C.6} **Extra-Bond:**
Apply one coat of milk paint with Extra-Bond added, as in "B-2", above, followed by a second coat of straight milk paint. This will work on **MOST** clean surfaces where previous layers are sound and not weakly bonded as shown above, and that have been prepared for painting as stated above. If you are unsure of the surface **it is a good idea to test the project first from start to finish in an unnoticeable area.** This means applying two coats in your test if that is what you plan to do on your project. Often times, on a questionable surface, the first coat may *appear* to adhere, but sometimes an adhesion problem is not apparent until you apply the second coat.

C.7}
Seal, if desired, as detailed in "A-7", above.

(D) EXTERIOR USE

We Do Not recommend milk paint for exterior use.
It will water spot in the rain (except for white paint). However, multiple coats of a clear exterior finish will seal the paint and prevent water spotting. Traditionally, milk paint was made waterproof with the addition of oil, such as linseed, poppy or peanut oil. We do not recommend this as the oil may still cause problems later with mildew or brittleness of the paint film. And, even with the oil added, the paint may still water spot.

(E) MILK PAINT COLORS

The colors will vary slightly from batch to batch due to minor variations in the natural earth materials. If you wish to change the hues, or make tints of the colors (some are shown on our color chart), start with Snow White and add colors to suit your taste. You can add Pitch Black to Lexington Green to deepen the tone.
For example:
6 tbsp. of Pitch Black to one pint (6 oz. bag) of Lexington Green makes a very accurate early Windsor chair dark green.
Any of our colors may be mixed together to create new colors. The best way to develop your "ideal color" is to start with a paper cup and some measuring spoons. Mix your powders together first. Try a tablespoon of a major color and add teaspoons or even fractions of teaspoons of another color. Add a little water and mix well.
The color will look darker when wet, so paint the sample on a piece of scrap wood or even cardboard. The first quick test will show you which direction to go from there. Then simply multiply your measurements and make up the needed quantity.
If you are going to use a sealer over the paint, try it first on your test piece to check the final color.
The paint available as a translucent "Base" with no pigment for those who wish to start from scratch to create a color using universal tinting colors or other water-soluble (preferably "lime-proof") pigments.

(F) DECORATIVE FINISHES & FAUX FINISHES

Decorative finishing, such as graining, marbleizing, sponging, crackling, etc. is an art and not a science. We cannot stress too strongly the importance of **testing every step of your finishing project on scrap or at least on a test area before applying your first coat on your project**.

For example, if you were going to finish a vertical surface with our Antique Crackle, your test should duplicate this condition so that if a problem such as running and sagging occurs, you will know about it in advance and adjust your brushing technique. Practice and testing cannot be overemphasized. The many books and courses available will help to guide you, but nothing takes the place of practice with small test samples mixed in paper cups.

(G) INGREDIENT QUALITY

Just as in Colonial times, and earlier, our milk paint does contain lime, milk protein, clays and earth pigments. We use no lead, no chemical preservatives and no hydrocarbons or other petroleum derivatives. The other ingredients are inert materials. All of our ingredients are food grade or pharmaceutical grade.

(H) ZERO TOXICITY

Milk paint is non-toxic, as it contains no petrochemicals or voc's. When wet, our paint has a slight earthy milk odor, which will disappear in a few hours. The hydrated lime is highly alkaline, naturally anti-bacterial and lowers its alkalinity as it catalyzes with the acidic milk protein. Inert when dry, it can still have anti-bacterial properties depending on the humidity in the area.

(I) SHELF LIFE

Keep the paint powder sealed until ready to use. If it is kept dry and airtight, it should last indefinitely. If exposed to air or dampness for any period, the active lime becomes inert and turns to chalk. When this happens, the paint won't mix up properly and if applied can powder off.
We recommend storing unused powder in a glass or metal container with a tight lid.

(J) TECHNICAL ASSISTANCE

For technical assistance, phone (707) 226-3623, or toll-free (877) 245-5611, during normal business hours, 10 - 5 West Coast time, Monday through Friday, except holidays.

MILK PAINT AVAILABLE SIZES

Pint -- 6 oz. powder, plus water - covers approx. 35 sq. ft.

Quart --12 oz. powder, plus water - covers approx. 75 sq. ft.

Gallon -- 48 oz. powder, & water - covers approx. 300 sq. ft.

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EXTRA BOND

EXTRA-BOND is a water-based polymer emulsion. When added to Milk Paint it gives the paint **greater adhesion to hard non-porous or previously finished surfaces.** EXTRA-BOND is added to Milk Paint for better adhesion. Used by custom furniture builders, interior designers, and craftsmen, for bonding on hard non-porous surfaces. It is environmentally safe, non-toxic, hypo allergenic, low odor and voc-free.

USAGE

EXTRA-BOND is mixed with Milk Paint before painting on surfaces such as glass, baked enamel, primed metal, oil or latex painted surfaces, and varnish, shellac or polyurethane surfaces.

EXTRA BOND APPLICATION TECHNIQUES

Please Note:

Two rules should always be followed in the application of MILK PAINT with Extra-Bond, or of any other finish for that matter:

1 - Make sure the surface is perfectly clean.

2 - First, TEST the Milk Paint (with Extra-Bond added) on a scrap piece of the same surface material. Evaluate result when completely dry.

EXTRA BOND APPLICATION

#1 Thoroughly clean the surface to be painted. Use a cleaner that does not leave a soapy or oily residue such as TSP. Hard shiny surfaces should be dulled somewhat with Scotch-Brite, sandpaper or steel wool.

#2 Measure out equal parts of mixed Milk Paint and EXTRA-BOND. Mix together. You may actually use as little as one part EXTRA-BOND to two parts Milk Paint, but **better adhesion may be achieved using equal parts**

#3 If a second coat of Milk Paint is desired allow two (2) hours between coats. EXTRA-BOND is not necessary in the second coat.

OTHER MILK PAINT RELATED SUPPLIES

PDE™ PAINT REMOVER

BEHLEN PDE™ Paint Remover is formulated to remove protein based paints such as **Milk Paint.** Mix the PDE powder with water to create a remover that will effectively dissolve up to 8 layers of old latex, casein, oil paint, and milk paint.

- Non-toxic, no fumes, no fire hazard.
- *NOT for use on shellac, varnish, lacquer, or urethane.*

Milk Paint Products Available From:

Wood Finish Supply
Shellac.net

https://www.shellac.net/old_fashoned_milk_paint.html

Wood Finish Supply
Shellac.net

Old-Fashioned Milk Paint Company has been faithfully producing a genuine Milk Paint as close as possible to the old primitive, home-made paint made on the back porch with skim milk or buttermilk, crushed limestone and pigments found around clay pits, or chimney soot and mineral colors crushed and powdered. This original paint goes back about 6,000 and more years as evidenced by early cave paintings.

Old-Fashioned Milk Paint is made today with the same basic ingredients used for the past hundreds of years, milk protein, lime and earth pigments. The look and feel of a surface painted today replicates what was found on furniture, walls and floors in country houses in Colonial America.

Genuine milk paint is technically a calcium-caseinate. That means simply that it is made from milk protein, (also known as casein) and lime, (also known as calcium), plus the earth or mineral pigments.

All dry ingredients are used, still faithful to Milk Paint early history,
in order to ship our paint anywhere.

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See the Milk Paint Color Chart and complete information at:

https://www.shellac.net/old_fashoned_milk_paint.html