Step 1: Preparation for Paint

Before applying paint, all raw wood projects require preparation sanding, and all existing finishes require prep cleaning and sanding. If you skip this critical step, your finish may fail.

Preparation for Raw Wood Projects

See our video: How to Prep Sand Raw Wood

- 1. Sanding schedule: 120-grit sandpaper followed by 150-grit. Do not oversand with fine-grit sandpapers; this will close and seal the wood grain, preventing ideal color absorption. Do not use steel wool with waterbased finishes; the particles will get trapped in the finish and rust.
- 2. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.
- 3. Let dry completely before applying General Finishes product.

Preparation for Projects with an Existing Finish

For high-use areas with heavy grime build-up and oil from hands, give your project a deeper cleaning.

See our video: How to Prepare Existing Finishes

- 1. Scuff clean with a Scotch Brite pad and a 50:50 mix of denatured alcohol and water. Dry 1-2 hours. Avoid cleaning with products containing phosphates (salt), which can linger in the substrate and produce a white haze. If your project requires a deeper cleaning, see *Power Prep Cleaning Highly Used Existing Finishes* below.
- 2. Sand lightly with a fine-grade (220-320) foam sanding pad.
- 3. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.
- 4. Let dry completely before applying General Finishes product.

Power Prep Cleaning Highly Used Existing Finishes

See our video: <u>How to Power Prep Existing High Use Finishes for Stain or Paint</u>

- 1. Scrub clean with a detergent, such as Spic and Span or Dawn, using a Scotch Brite pad.
- 2. Rinse well with water.
- 3. Scrub clean with a Scotch Brite pad and a 50:50 mix of denatured alcohol and water. Dry 1-2 hours.
- 4. Sand lightly with a fine-grade (220-320) foam sanding pad.

- 5. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.
- 6. Let dry completely before applying General Finishes product.

Alternative Cleaning Solutions For Existing Finishes (Not as aggressive or effective as denatured alcohol; requires rinsing.)

- 1. 50:50 mix of bleach and water
- 2. 50:50 mix of vinegar and water
- 3. Mineral spirits can be used when working with water-based products, but only if the surface is thoroughly rinsed and allowed to dry for 72 hours.

Step 2: Priming

A base coat of primer is not required when applying General Finishes Milk Paint. However, 2 coats of **General Finishes Stain Blocker** may be necessary for the following circumstances, especially when using WHITE OR LIGHT-COLORED PAINTS.

- 1. Raw Wood Tannin Bleed-Through is unpredictable; yellowing can appear immediately or months later with seasonal temperature changes. Oak, pine, mahogany and douglas fir are particularly prone to bleed-through.
- 2. **Knots in Wood** contain rosin (sap) and are dense, making paint adhesion a challenge. Pine knots are especially difficult to cover with white or light paints. If you decide to paint over them, apply 3 coats of Stain Blocker over the areas with knots first; however, we cannot guarantee against rosin bleed-through. You are better off using a dark paint on pine.
- Existing Finish Bleed-Through may be caused previous stains or aniline dyes, surface contamination, and incompatibility between brands.
- 4. Dark Paint Colors Over Existing Surfaces: To improve coverage when applying darker colors such as Coastal Blue, Dark Chocolate, or Queenstown Gray, prime with a coat of Lamp Black.
- 5. **Non-Wood Surfaces** may be able to take paint if primed first. Primer may improve adhesion over laminate and prevent bleed-through from MDF. Metal requires a primer made specifically for metal.

NOTE: Do not tint or use Stain Blocker on projects that will be stored outdoors.

Priming Non-Wood Surfaces for Paint

Always test for adhesion on a hidden area of your project before getting started.

Metal: General Finishes Milk Paint is engineered for wood surfaces, but may adhere to metal, such as aluminum or steel, if a metal primer is applied first.

- 1. Clean surface well.
- 2. Apply primer.
- 3. Dry 48-72 hours before painting.

Laminate: Milk Paint MAY adhere to laminate with a bonding primer; however, we cannot guarantee it. You may increase your chances of success by abrading the surface.

- 1. Prep: Deep clean, dry thoroughly, sand with 150- then 180-grit sandpaper and wipe off dust.
- 2. Prime: Apply bonding primer, dry 12+ hours before painting.

MDF: Milk Paint can be applied directly to MDF, but the MDF may cast a brown color if not primed first. Two base coats of white-pigmented shellacbased stain-blocking primer, or Stain Blocker, may prevent bleed-through. Alternatively, one base coat of General Finishes Seagull Gray Milk Paint may block brown tone caused by MDF.

MDF is not as absorbent as natural wood. Let each coat of primer and paint dry at least 48 hours before recoating.

Fiberglass: Milk Paint can be applied directly over fiberglass without primer. We do not recommend applying other General Finishes products over fiberglass. Gel Stain may adhere to fiberglass, but it is not an exterior rated product.

Disclaimer

Although Stain Blocker is engineered to prevent the most persistent bleedthrough when two coats are applied, General Finishes cannot guarantee prevention of bleed-through or yellowing on every project. Unknown factors and assiduous bleed-through can impact results. Stain Blocker is the strongest option we are aware of at this time and has performed extremely well in our tests.

Step 3: How To Apply General Finishes Milk Paint

General Finishes Milk Paint Application Steps

- 1. Stir paint to reincorporate solids that have settled to the bottom of the can before and throughout the application process.
- 2. If desired, thin with up to 15% distilled water or <u>General Finishes</u> <u>Extender</u>. Start by adding 5% in increments until you reach the desired consistency. GF Extender will improve flow and leveling and increase open time, which is helpful in dry climates.
- 3. Apply 2-3 coats. More coats will be required when using colors with less "hide properties," such as bright reds, greens, yellows and whites.
 - **Hand application:** Apply using a synthetic bristle brush, foam brush, paint pad applicator or 3/8" nap microfiber roller such as Whizz or AllPro brand.
 - Spray application: See video tutorial on spraying Milk Paint. Before spraying, strain paint through a medium-mesh filter. Spray wet films at 3-5-mil thickness. HVLP: 1.8mm-2.0mm spray tip, medium air cap. Verify tip sizes with your equipment supplier. See our general guide for spray tip sizes. Keep your gun at a 90° angle, 6-8" from the surface. On large, flat areas, use wet, even patterns 6-8" wide. For narrow surfaces, reduce the fan pattern to 2-3" wide to reduce overspray. Overlap each pass 25% to conceal lines. Wear full filter NIOSH/MSHA-approved respiratory & eye protection. Read here for more information on spraying techniques.
 - Face frames on cabinets: Milk Paint can be applied successfully to cabinet face frames, edges or drawer fronts with a brush, pad or small cabinet-specific roller such as Whizz or AllPro brand.
- 4. Dry 2+ hours between coats and before topcoat in ideal conditions: 70°F/20°C; 50-70% humidity. Be sure to allow adequate dry time. You can tell if a water-based finish is dry if it forms a powder when lightly sanded with a fine-grade (220-320) foam sanding pad. If in doubt, wait longer. Rushing dry time can cause clouding/blush in topcoat due to moisture trapped between coats. Increase dry time if:
 - Humidity is over 80%
 - 3+ coats are applied

- Thick coats are applied
- · Applying over an existing sealed finish
- Applying over products from other brands
- Layering General Finishes water- and oil-based products:
 - Water over oil: Let oil-based products dry 72+hrs before applying water-based products
 - Oil over water: Let water-based products dry 24+hrs before applying oil-based products
- To accelerate dry time in humid conditions, add <u>General</u>
 <u>Finishes Accelerator</u> and work in a space with good ventilation and air movement. If you decide to re-coat before the recommended time, test dryness.
- 5. Finish sand between coats with a fine-grade (220-320) foam sanding pad to improve smoothness and adhesion.
- 6. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.
- 7. Topcoat is not required on Milk Paint for increased durability, as it is a self-sealing, exterior-rated coating with high durability and superior water and chemical resistance. However, it has a low luster sheen. We highly recommend 2-3 coats of a topcoat provide a smoother surface that is easier to clean and boosts durability for high-use projects, such as tabletops and kitchen cabinets.

Cure Time

Water-based finishes cure and harden for full use after 21 days in ideal conditions. Avoid placing heavy objects on surfaces that have not completely cured. Treat gently, and do not clean with commercial products during the curing period.

Notes on Color

- All white paints darken or yellow over time, but the change is more evident with bright whites, such as General Finishes Snow White Milk Paint.
- Some colors require additional coats for coverage due to their lower hide quality, e.g., reds, bright whites, yellows.

Warning: Do not use water-based products with Linseed Oils or Danish Oils.

Step 4: Topcoat over Milk Paint

General Finishes Milk Paint does not require topcoat on low- to medium-wear surfaces. However, do seal high-use surfaces, such as kitchen cabinets or tabletops, with 3 coats of topcoat. Glossier sheens will boost durability and make the surface easier to clean.

Recommendations

General Finishes <u>High Performance</u> Topcoat and General Finishes Enduro Clear Poly dry crystal-clear and are great for high-use surfaces. General Finishes Flat Out Flat is our flattest topcoat, only suitable for projects that do not receive major wear.

Topcoating General Finishes Snow White Milk Paint

Clear, water-based finishes can react with wood substrates and previous finishes, causing the topcoat to yellow. This is most evident when using bright white paints. To avoid potential yellowing, use 3 coats of spray-only Enduro White Poly as a standalone finish. See our FAQ: How Do I Prevent Water Based Topcoat or Light Colored Paint from Yellowing?

Creative Finishing Techniques Using Milk Paint

Layering Colors & Distressing

- 1. Test colors on the underside of your project to ensure it is what you want.
- 2. Stir the paint. If it is too thick, add a small amount of water to thin, then stir again.
- 3. Apply 2 coats of base color using an acrylic bristle brush, poly foam brush, paint pad applicator, or sprayer with an HVLP 1.8 or 2.0 needle.
- 4. Dy 2-4 hours between coats. Buff each coat with a fine-grade (220-320) foam sanding pad or 400-grit sandpaper.
- 5. Apply 2 coats of top color. Dry 2-4 hours between coats, but no more than 4 hours; sanding is easier when the paint has had less time to tighten down. Buff each coat as before with a fine-grade (220-320) foam sanding pad or 400-grit sandpaper.
 - TIP: If you want more of the underlying color exposed, seal the base color with a coat of **General Finishes High**
 - **Performance Topcoat**before painting the top color. This allows for easier sanding without burning all the way through to bare wood.
- 6. Using 120- to 150-grit sandpaper, sand through the top color to reveal the base color.

Chippy Farmhouse Technique

MATERIALS NEEDED:

- General Finishes Water Based Wood Stain: Espresso
- General Finishes Milk Paint: Snow White
- Water-Based Topcoat
- Assorted Foam & Chip Brushes
- Vaseline
- Paper Towels

STEPS:

- 1. Stain raw wood with Espresso Water Based Wood Stain.
- 2. Paint or dab Vaseline in random areas.
- 3. Paint over Vaseline with Snow White Milk Paint. Let dry.
- 4. Wipe back with a paper towel to reveal chipped areas (repeat with different colors for layered, aged effect).
- 5. Seal with 3 coats of water based topcoat.

Creating Custom Colors

You can design your own custom glazes, stains, washes and varnishes with General Finishes intermixable water-based products. See tips and recipes below:

For the mixes listed below, General Finishes recommends the following two steps:

- 1. Applying a base layer of High Performance Topcoat before applying your custom glaze.
- 2. Protect all of these finishes with 2-3 coats of topcoat when you are finished.

Pastel Glaze/Whitewash:

MATERIALS NEEDED:

- General Finishes Milk Paint: Your choice of colors
- General Finishes Glaze Effects: Winter White OR General Finishes Water Based Wood Stain: Whitewash

Do not add more than 50% paint to the glaze or stain, or else there will be so much pigment it will be difficult to wipe away the finish.

Custom Glaze:

MATERIALS NEEDED:

General Finishes Glaze Effects: Your choice of colors

SAMPLE MIX:

Pitch Black Glaze Effects + Winter White Glaze Effects.

Experiment with proportions and colors.

Custom Stain Colors:

MATERIALS NEEDED:

- General Finishes Milk Paint: Your choice of color
- <u>General Finishes Glaze Effects: Clear Base</u> OR <u>General Finishes</u> <u>Pre-Stain Wood Conditioner Natural</u>

SAMPLE MIXES:

- 1. 1 part Milk Paint + 1 part Pre-Stain Natural [50:50 mix] OR
- 2. 1 part Milk Paint + 1 part Glaze Effects Clear Base [50:50 mix] OR
- 3. 1 part Milk Paint + 2 parts Water Based Wood Stain Natural [1:2 mix]

Proportions are relative to the color you are reducing. Some colors may require 2 parts Clear Base to reduce strength, others may require 1.

Begin with a 50:50 mix, and add more Clear Base as needed.

Increase your color palette by mixing 2 or 3 Milk Paint colors together before adding the Clear Base.

Milk Paint & Glaze Effects Samples

Cleanup of Water Based Products

Application tools and materials containing water-based products can be cleaned with soap and water or GF Brush & Gun Cleaner immediately after use.

Product Spills

Spills may be able to be removed from fabric and carpet if cleaned immediately with soap and water.

Storage of Water Based Products

Life of Product

Water-based products do not last forever, even when unopened. General Finishes products are best used within 1 year of the manufacture date listed on the bottom of the can. The life of the product may be extended with proper care and storage.

Settling

Gravity can cause some solids to settle on the bottom of the can and slight separation on the top. This is normal. If working with older paint, use paint mixing attachment on a drill. If the solids dissolve and clumps smooth out after mixing from the bottom, the product is in good condition for use.

Storage Tips

See video tutorial: Tips on Storing Leftover Finishes

Water-based finishes crystalize and form a skin due to evaporation when the air-tight seal on a can is broken at first use. The following best practices will increase the life of your product:

- 1. Pry open sealed lids with a paint can opener by hooking under the lid's rolled edge. The use of a screwdriver can disfigure the rim and lid, impairing a complete seal.
- 2. Keep lid closed while working. Pour what you will use into a bowl, paper cup, or plate, and close can lid as you work.
- 3. Clean the chime of the can thoroughly with a paper towel before closing to create a complete seal. Paint in the chime can be minimized by using a pouring lid, such as Fitsall. Avoid wiping used brushes on the lid.
- 4. Pound the lid in place using a rubber mallet to avoid distorting the chime or lid. Dents in the lid from direct contact with a hammer can impair a complete seal. Alternatively, place a flat piece of wood over can lid and firmly pound shut.

- 5. Store in moderate temperatures. Avoid temperatures below 50°F/10°C or above 80°F/26°C. Keep from freezing. Frozen and heat-damaged product cannot be revitalized. Temperature-controlled spaces, such as a basement, are ideal for storage. Do not store product in an attic, garage, in direct sunlight, or next to something warm like a water heater or furnace.
- 6. Store can upside down to create a liquid seal, minimize evaporation and reduce the chance of crystallization. Decant remaining product from the can before stirring.
- 7. Decant leftovers to a smaller container when the finish is almost used up. Alternative storage containers for water-based products are plastic FIFO bottles or glass bottles. Do not fill metal-lidded containers completely to prevent them from rusting.

The following water-based product mixtures can be stored:

- Product thinned with up to 15% <u>General Finishes Extender</u> or <u>General Finishes Accelerator</u> can be stored, with the exception of thinned <u>General Finishes Water Based Wood Stain</u>.
- 2. Mixtures involving colors & sheens within the same product line, such as:
 - High Performance Satin + High Performance Gloss
 - Snow White Milk Paint + Coastal Blue Milk Paint
 - Amber Dye Stain + Merlot Dye Stain

The following product mixtures should NOT be stored:

- Any water based product with thinned tap water; water often contains bacteria that will adversely affect stored paint.
- Topcoat + Stain or Paint
- Milk Paint + Chalk Style Paint
- Water Based Wood Stain + Dye Stain

Furniture Care and Maintenance

Cure First

You have just finished applying a fine furniture finish. Treat gently until the paint or topcoat have fully cured. Allow 21 days for a water-based finish to cure and 30 days for an oil-based finish to cure before cleaning.

Regular Cleaning and Maintenance

- Remove dust with a water-dampened cloth. Dust can build up over time and may scratch or dull finishes if not removed regularly.
- Remove fingerprints, cooking fumes and smoking residue with mild soap and water. These contaminants will not harm the finish, but they accumulate on surfaces and dull the original luster.
- As with all fine furniture finishes, avoid using furniture polish, cleaners or dusting sprays that contain silicone, alcohol, ammonia and anything acidic. Exception: We have successfully cleaned with Clorox wipes.
- Clean up water, alcohol and food spills in a timely manner and use placemats & coasters to protect the finish.
- Future finishes or touch-ups may not adhere properly or perform as desired over a contaminated surface. Some contaminants, such as silicone, seep through finish into the wood and often cannot be removed.
- Avoid excessive exposure to direct sunlight, high temperatures or high humidity. These can damage furniture and finishes.

Warnings and Warranties

Compatibility: Do not use water-based products with Linseed Oils or Danish Oils.

Limited Warranty

General Finishes products must be tested to your complete satisfaction before using, including compatibility with other manufacturers products. General Finishes will be responsible only for the cost of our products and will not be responsible for any costs such as labor, damage, or replacement costs.

Contamination and Compatibility

Our finishes are engineered as a system and are compatible with each other. General Finishes cannot guarantee an ideal refinish when applying our products on top of or combined with another company's products or over surfaces that have been in contact with waxes, polishes or sprays containing contaminants such as silicone. Test for adherence and aesthetics before beginning.

Danger: Contents are COMBUSTIBLE. Keep away from heat and open flame. Application materials or other waste soaked with this product may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

CAUTION: Contains ALIPHATIC HYDROCARBONS. VAPOR HARMFUL. Use only with adequate ventilation. DELAYED EFFECTS FROM LONG-TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating & inhaling the contents can be harmful or fatal.

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 ALSO 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 1-800-424-LEAD or log onto www.epa.gov/lead.

Do not swallow; first aid: drink water to dilute product. May cause eye and skin irritation; first aid: flush eyes thoroughly with water.

FIRST AID: In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, do not induce vomiting. Get medical attention immediately.

Warning

This product contains a chemical known to the State Of California to cause cancer and birth defects. Do not swallow; first aid: drink water to dilute product. May cause eye or skin irritation; first aid: flush eyes thoroughly with water.