

HOW TO SOLVE PAINT PROBLEMS

Revive and protect: paint problems and solutions.



ARM YOURSELF WITH KNOWLEDGE

Heat, moisture, old age, and environmental stressors can take a toll on your home's protective coatings. Use this guide to diagnose, solve, and prevent common paint issues.

PUT SAFETY FIRST

Your safety and wellbeing are priceless. Always use protective clothing, goggles, a respirator, and follow basic ladder safety. Before dealing with old paint, have it tested for lead and asbestos, or consult a professional.

THE ALPHABET OF ISSUES

Keep this dictionary of paint issues handy and refer back to it when attempting to diagnose a paint problem. For specific product recommendations, see the inside back cover of this brochure.

Alligatoring



This type of patterned cracking in paint film resembles an alligator's scales. It may begin as slight cracking and can eventually grow wider and deeper, breaking through top and bottom coats.

Alligatoring is caused by:

- ▶ Inability of the top coat to bond smoothly to a glossy finish.
- ▶ Applying an extremely hard, rigid coating (e.g., oil-based paint) over a more flexible coating.
- ▶ Natural aging of oil-based paints in extreme climates, where continuous freezing and thawing results in loss of paint elasticity.
- ▶ Applying a coat before the previous coat has dried.
- ▶ Applying too much paint per coat.

How to solve it:

- ▶ Scrape, sand, or remove the paint down to the bare surface.
- ▶ Remove all dust and allow the surface to dry completely.
- ▶ Prime the surface with a high-quality latex primer and let it dry completely.
- ▶ Apply a high-quality paint in the desired finish.

Blistering



Lifting of the paint film from the underlying surface can cause bubbles or blisters. This condition can eventually lead to peeling, if not corrected.

Blistering is caused by:

- ▶ Painting in direct sunlight or on a surface that is too hot.
- ▶ Application of an oil-based or alkyd paint over a damp, wet surface.
- ▶ Exposing fresh paint film to dew, high humidity or rain.
- ▶ Moisture passing through interior walls from common household sources such as bathrooms, kitchens and laundry rooms.

How to solve it:

- ▶ Determine if blisters were caused by heat or moisture. Break open and examine the substrate and back side of blistered paint. If only the newest coat of paint is blistered, the blister was probably caused by heat. If the peeled blister contains several coats of paint and the bare surface is exposed, the blister was probably caused by moisture.

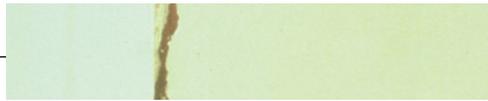
For blistering caused by heat

- 1 Scrape, sand, or pressure-wash down to underlying coats of paint or primer.
- 2 Repaint the surface with a high-quality paint (make sure the surface temperature is below 90° F).

For blistering caused by moisture:

- 1 Repair loose caulking, improve ventilation, and fix moisture issues (e.g., plumbing or roof leaks) to prevent a recurring problem.
- 2 Remove the blisters by scraping or sanding down to the bare surface.
- 3 Prime all bare areas with a high-quality primer.
- 4 Repaint the surface with a high-quality paint.

Blocking



Blocking occurs when two freshly painted surfaces stick together when pressed against each other, such as a door sticking to the jamb or window sticking to the sill. Frequently, when one surface “breaks” free, it leaves paint from its own surface or peels paint from the opposing surface.

Blocking is caused by:

- ▶ Pressing newly painted surfaces together before they have fully dried.
- ▶ Using slow-drying, oil-based paints that have been stored for long periods.
- ▶ Applying another coat of paint before the first coat is completely dry.
- ▶ Applying excessive amounts of paint on a surface.
- ▶ Using a low-quality, water-based paint that wasn't designed for block resistance.

How to solve it:

- ▶ Scrape or sand the surface to remove all loose paint.
- ▶ If the problem area is a door or window, properly adjust it for free and smooth operation.
- ▶ Clean off any dust or dirt and prime the area with a high-quality primer.
- ▶ Use a top-quality semi-gloss or gloss acrylic latex paint that was designed for block resistance. Acrylic latex paints generally have better block resistance than vinyl acrylic paints or alkyd and oil-based coatings. Alkyds, however, can develop superior block resistance as the film hardens.

Burnishing



An increase in gloss or sheen when rubbed, scrubbed, or brushed up against; burnishing is even more noticeable with darker colors.

Burnishing is caused by:

- ▶ Use of a flat paint in high-traffic areas where a higher sheen level should have been used.
- ▶ Frequent washing and spot cleaning.
- ▶ Use of abrasive cloths and/or cleaners.
- ▶ Use of low-quality paints with poor stain and scrub resistance.

How to solve it:

- ▶ Repaint high-traffic areas that are prone to burnishing with a superior paint.
- ▶ Consider using a higher gloss or sheen level.
- ▶ Only clean repainted surfaces with a soft cloth or sponge and non-abrasive cleaners and rinse with water.

Chalking



The formation of fine powder on the surface of paint is known as chalking. All paints chalk to some degree; it is a normal, desirable way for the paint film to wear. Quality paints may chalk mildly, but still maintain a sound surface for many years. Medium and heavy chalking can cause color fading. Severe chalking makes repainting a problem because it does not provide a good surface to which new paint can adhere.

Chalking is caused by:

- ▶ Long-term exposure to moisture and sunlight.
- ▶ Using a low-quality paint.
- ▶ Over-thinning the paint or spreading it too thin.
- ▶ Not priming and sealing a porous surface.

How to solve it:

- ▶ Determine the degree of chalking by rubbing the surface with a finger or dark cloth.
- ▶ Remove all chalk residue. Light to moderately chalked surfaces can be wire-brushed or sanded to remove the excess surface powder. Excessive chalking requires pressure-washing or sand-blasting. If a pressure washer is not available, scrub the surface with a stiff brush and a mild detergent.
- ▶ Rinse thoroughly with a strong stream of water from a garden hose.
- ▶ Allow the surface to dry thoroughly.
- ▶ Check the surface again using your finger or a rag to determine the amount of chalk residue.
- ▶ If little or no chalk remains and the old paint is in good condition, no priming is necessary.
- ▶ If light to moderate chalk remains, use a penetrating additive to the first coat of water-based paint to help the paint film bond to the chalked surface.
- ▶ If noticeable chalk remains, use a bonding primer as the first coat of paint.
- ▶ Finish using a high-quality topcoat. Note that 100% acrylic finishes provide better chalk resistance than vinyl-acrylic paints.

Corrosion



Corrosion is the deterioration of metal caused by chemical or electrochemical reaction, resulting in rust in iron and steel.

Corrosion is caused by:

- ▶ Inadequate or improper surface preparation, including the improper removal of existing rust.
- ▶ Improper film thickness upon application.
- ▶ Improper cure time of primer before top coating.
- ▶ Improper cure time before exposure to moisture.

How to solve it:

- ▶ Remove all loose, peeling, or chalky paint by sanding, scraping, or other appropriate methods.
- ▶ Clean all bare metal using acetone or metal etching liquid to remove rust, oil, grease, and/or dirt. Always wear gloves and long sleeves when working with chemical cleaners.
- ▶ Apply the appropriate primer and paint for the substrate.
- ▶ Note that newly cleaned metal must be prime-coated the same day to prevent re-contamination.

Cracking



Cracking is the splitting of paint film through at least one coat. Hairline cracks may appear initially, but progress to flaking and severe cracks. Complete failure of the paint can occur if left untreated.

Cracking is caused by:

- ▶ Over-thinning of the paint or spreading it too thin
- ▶ Poor surface preparation, especially with bare wood that hasn't been primed
- ▶ Painting under cool or windy conditions where the paint dries too fast
- ▶ On surfaces that have been painted many times, the bottom layers of paint lose their flexibility and are unable to expand and contract with the surface as it responds to temperature and humidity changes

How to solve it:

- ▶ Determine if cracking goes all the way down to the surface.
- ▶ If cracking does not go all the way down to the surface, remove loose paint with a scraper or wire brush, sand the area and feather the edges, and repaint with a high-quality paint.
- ▶ If cracking does go all the way down to the surface, remove all of the paint by scraping, sanding, and/or using paint remover. Prime wood and masonry surfaces with an appropriate, high-quality primer, then repaint with a high-quality paint.
- ▶ If the cracking occurs over plywood, only periodic scraping, repriming and recoating will solve the problem. Note that latex paints fill plywood cracks better than oil-based paints.
- ▶ Pressed composition boards should be primed immediately after installation. An adequate coating should be kept on the surface at all times to seal out moisture.

Dirt Pick-Up



The accumulation of dirt, dust and/or other debris on the paint film; dirt pick-up may resemble mildew.

Dirt pick-up is caused by:

- ▶ Use of low-quality paints.
- ▶ Soil splashing onto siding.
- ▶ Air pollution, car exhaust, and airborne dust.

How to solve it:

- ▶ Conduct a spot-test with household chlorine bleach. If the color bleaches out in a few minutes, the problem is mildew (refer to the Mildew section later in this brochure). If the color changes only very little, the surface is dirty. Always wear eye protection and gloves when working with bleach.
- ▶ Remove dirt with a scrub brush and detergent solution, followed by thorough rinsing with a garden hose. Heavier dirt may require the use of a power washer. Stubborn dirt may require the use of a degreaser or cleaner.
- ▶ Paint with a high-quality paint that is formulated to provide superior dirt pick-up resistance.
- ▶ Paints with higher gloss or sheen are more resistant to dirt pick-up than flat paints.

Efflorescence



White deposits (that are actually soluble salts) can appear on concrete, brick, block, stucco, mortar and other masonry surfaces when exposed to moisture. In addition to creating an unattractive appearance, efflorescence causes adhesion problems if not properly removed before repainting.

Efflorescence is caused by:

- ▶ Failure to properly prepare the surface by removing all previous salt deposits.
- ▶ Excess moisture escaping through exterior masonry walls from the inside.
- ▶ Painting masonry surfaces before they are fully cured.

How to solve it:

- ▶ Remove efflorescence and all other loose material (dirt, sand, deteriorated paint, etc.) with a wire brush, power brush, or power washer. If a wire brush is used, thoroughly rinse the surface afterwards.

- ▶ Wash the surface with a solution of one part phosphoric acid to seven parts water (for safety, always add the acid to the water; never add the water to the acid). Citric acid is the safest and easiest to use; however, it is slightly less effective.



CAUTION: Phosphoric acid will burn the eyes and skin. Always wear protective clothing, goggles, rubber gloves, and boots when acid-washing.

- ▶ Rinse thoroughly with clean water.
- ▶ Allow the surface to dry completely.
- ▶ If efflorescence still exists, repeat the steps above.
- ▶ Seal the surface with a high-quality primer designed to prevent efflorescence.
- ▶ Repaint with a premium-quality acrylic finish.

Fading/Poor Color Retention



Premature and/or excessive lightening of paint color typically occurs on surfaces with a southern exposure, but it can also be the result of paint film chalking.

Fading/poor color retention is caused by:

- ▶ Use of a low-quality paint, or interior grade of paint for an exterior application.
- ▶ Use of a paint color that is prone to ultraviolet deterioration (e.g., certain bright reds, blues and yellows).
- ▶ Painting masonry surfaces, such as stucco and concrete, that are not cured properly, resulting in alkali “burn”.
- ▶ Tinting a white paint that has not been designed to be tinted, or adding too much colorant to a light or medium paint base.

How to solve it:

- ▶ When a result of chalking, it is necessary to remove as much of the chalk as possible.
- ▶ When a result of alkali “burn,” the surface should first be primed with an alkali-resistant primer before applying the finish coat.
- ▶ When repainting, be sure to use a high-quality exterior paint and colors that are recommended for exterior use.

Mildew



Mildew is a fungus (mold) that grows in humid, poorly ventilated, shaded areas. If not corrected, it will eat away at the existing paint, causing a failure in the affected areas. There is no way to absolutely prevent mildew growth, however, it may be controlled if the proper precautions are followed.

Mildew is caused by:

- ▶ Failure to prime a bare wood surface before applying the paint.
- ▶ Painting over a surface previously infected with mildew.
- ▶ Excess humidity or other moisture problems.

How to solve it:

- ▶ Conduct a spot-test with household chlorine bleach. If the color bleaches out in a few minutes, the problem is mildew. If the color changes only very little, the surface is dirty. Always wear eye protection and gloves when working with bleach.
- ▶ Locate and correct any sources of moisture accumulation or excess humidity.
- ▶ Clean the surface with a commercially prepared mildew remover or use a homemade solution of one quart bleach, three quarts warm water and 1/4 cup liquid dishwasher detergent (ammonia-free).



CAUTION: Chlorine bleach must never be mixed with ammonia or with any detergent or cleaners containing ammonia. These mixtures will form vapors that can be harmful or even lethal.

- ▶ Rinse the surface and surroundings thoroughly with clean water.
- ▶ Allow the surface to dry completely before painting.
- ▶ Use an appropriate primer and high-quality paint.
- ▶ Dunn-Edwards includes mildewcides in all exterior paints. Additional fungicide or mildewcide may be added to primer and paint if extra protection is desired.
- ▶ For more information, see the Mildew and Surface Mold brochure.

Mud Cracking



Deep, irregular cracks resembling dried mud on painted surfaces is known as mud cracking.

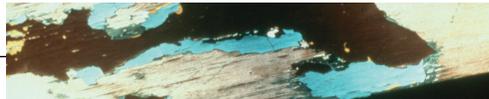
Mud cracking is caused by:

- ▶ Applying too much paint, usually over a porous surface.
- ▶ Allowing paint build-up in corners upon application.

How to solve it:

- ▶ Sand the area to make it smooth.
- ▶ Prime any bare surface with a high-quality primer and allow it to dry.
- ▶ Repaint with a high-quality paint.

Multiple Coat Failure



Multiple coat failure is the loss of adhesion when a topcoat is applied over many old coats of paint.

Multiple coat failure is caused by:

- ▶ Use of water-based paint over multiple coats of old paint that causes the old paint to “lift off” the surface.

How to solve it:

- ▶ Remove all loose paint down to the bare surface. If using liquid removers, wear long sleeves and gloves.
- ▶ Prime the surface with a high-quality primer and allow it to dry thoroughly.
- ▶ Repaint with a high-quality paint.

Peeling From Galvanized Metal



When paint has lost its adhesion to a galvanized metal surface, it may begin peeling.

Peeling from galvanized metal is caused by:

- ▶ Inadequate or improper surface preparation.
- ▶ Failure to use a primer before applying an oil-based or vinyl water-based paint.
- ▶ Failure to sand baked-on enamel finishes or glossy surfaces before painting.

How to solve it:

- ▶ Remove all loose, peeling paint down to the bare metal.
- ▶ Clean all bare metal using acetone or metal etching liquid to remove rust, oil, grease, and/or dirt.
Always wear gloves and long sleeves when working with chemical cleaners.
- ▶ Rinse the surface with clean water, and allow to dry.
- ▶ Apply a galvanized metal primer.
- ▶ Repaint with a high-quality paint.

Peeling From Wood



When wet wood expands and contracts due to moisture and temperature change, paint film can loosen, crack and roll at exposed edges and fall off. Peeling can widen and continue to loosen the paint film if left untreated.

Peeling from wood is caused by:

- ▶ Moisture or water seeping into the painted wood surface through uncaulked joints, worn-out caulking, or leaks in roofs or walls.
- ▶ Interior moisture migrating through to the exterior walls.
- ▶ Vegetation giving off moisture too close to wood siding.
- ▶ Painting damp wood.
- ▶ Power-washing wood and not allowing sufficient time for the wood to dry.
- ▶ Inadequate surface preparation.
- ▶ Painting wood boards or siding too close to the ground.
- ▶ Using a low-quality paint.

How to solve it:

- ▶ Identify and eliminate all sources of moisture, especially windows, trim areas, and joints. Repair roof leaks and clean your gutters and downspouts. Re-direct sprinklers if necessary. Trim nearby vegetation if you suspect it may be contributing to peeling.
- ▶ Consider installing vents or exhaust fans, especially in kitchen, laundry, and bathroom areas where peeling occurs.
- ▶ If moisture is rising from the ground through masonry, waterproof the foundation with a specially designed coating.
- ▶ Remove any portion of wood that is touching the ground. Siding should come down no further than six inches above the ground.
- ▶ Correct peeling from moisture on siding by inserting small plastic or aluminum wedges or shims in between the nail heads under each board.
- ▶ Remove all loose paint with a scraper or wire brush, down to the bare wood if necessary.
- ▶ Feather-sand edges and rinse thoroughly with a hose. Power-washing is recommended for larger exterior areas (let wood dry for three to five days before priming).
- ▶ Prime bare wood with the appropriate primer and allow it to dry thoroughly.
- ▶ Repaint with two coats of a high-quality acrylic latex paint.
- ▶ Note: If it is not possible to eliminate the source of moisture, repaint the stripped wood with a thin coat of latex paint. A water-repellent solution may be applied to exposed wood.

Picture Framing



A non-uniform color effect called picture framing can appear when corners are cut in with a brush, and walls are rolled. The brushed areas may appear darker, resembling the “frame” of a picture. Also, sprayed areas may be darker than adjacent sections that are brushed or rolled.

Picture framing is caused by:

- ▶ Using more than one method of paint application (brushing will generally result in a thicker film than rolling).
- ▶ Adding colorant to a non-tintable paint or using the wrong type or level of colorant.

How to solve it:

- ▶ When repainting, make sure that paint is applied evenly, no matter whether it is brushed, rolled, or sprayed.
- ▶ With tinted paints, be sure that the correct paint base-colorant combinations are used.

Poor Alkali Resistance



Color loss and overall deterioration of paint film on fresh masonry can occur due to poor alkali resistance.

Poor alkali resistance is caused by:

- ▶ Applying oil-based or vinyl water-based paints to new masonry that has not fully cured.
- ▶ Using paint colors that are alkali-sensitive and not recommended for masonry.

How to solve it:

- ▶ Allow fresh masonry surfaces to cure for at least 30 days before painting. If this is not possible, use a high-quality, alkali-resistant primer.
- ▶ Test alkalinity of the surface with phenolphthalein or a pH pencil. Paint with a high-quality water-based paint and avoid colors that are alkali-sensitive.

Poor Flow and Leveling



Failure of paint to dry to a smooth film can result in unsightly brush and roller marks after the paint dries.

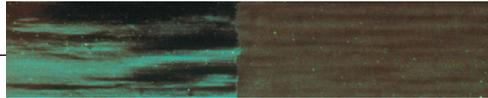
Poor flow and leveling is caused by:

- ▶ Use of low-quality paint.
- ▶ Use of low-quality tools/wrong roller cover.
- ▶ Re-brushing or re-rolling areas that are partially dried.
- ▶ Too much heat (usually above 90° F) or too little humidity, leading to rapid drying which prevents the film from flowing out properly.

How to solve it:

- ▶ Be sure to use a roller cover with the correct nap length for the type of paint being used.
- ▶ Pay attention to brush quality—a poor brush can result in brush marks and uneven appearance.
- ▶ Avoid painting under conditions that cause rapid drying of the paint.
- ▶ Use a high-quality paint formulated for excellent flow and leveling.

Poor Gloss Retention



When paint deteriorates, it can result in the premature and/or excessive loss of gloss.

Poor gloss retention is caused by:

- ▶ Use of an interior paint for an exterior application.
- ▶ Use of an oil-based paint in areas exposed to ultraviolet light, especially on a southern exposure.

How to solve it:

- ▶ Prepare the surface by wire-brushing, sanding, and/or cleaning with a mild detergent to remove any excess paint or debris on the surface.
- ▶ Rinse with water and allow the surface to dry thoroughly.
- ▶ Prime and repaint with a high-quality, exterior, water-based latex paint, formulated to resist ultraviolet deterioration.

Poor Hide



Poor hide refers to the failure of dried paint to obscure or “hide” the surface to which it is applied.

Poor hide is caused by:

- ▶ Over-thinning the paint or spreading it too thin.
- ▶ Use of low-quality tools/wrong roller cover.
- ▶ Use of low-quality paint.

How to solve it:

- ▶ Apply another coat of paint (not over-thinned) at the recommended spread rate.
- ▶ Use quality tools and a roller cover with the correct nap (if rolling).

Poor Sheen Uniformity



Shiny spots or dull spots on a painted surface or uneven gloss levels would be considered poor sheen uniformity.

Poor sheen uniformity is caused by:

- ▶ Applying paint unevenly.
- ▶ Failure to prime a porous or unevenly porous surface.
- ▶ Over-thinning of the paint.
- ▶ Poor application resulting in lapping (denser color or increased gloss where paint layers overlap during application).
- ▶ Use of low-quality paint.

How to solve it:

- ▶ Prime/seal new surfaces before applying the topcoat to ensure a uniform surface.
- ▶ For previously painted surfaces, a fresh coat of paint will often even out sheen irregularities. Make sure to apply paint by rolling or brushing in the direction of going from “wet to dry” areas to prevent the lapping effect.
- ▶ Use a high-quality, water-based enamel paint.

Poor Stain Resistance



Failure of paint to resist absorption of dirt and stains is considered poor stain resistance.

Poor stain resistance is caused by:

- ▶ Application of paint to unprimed surfaces.
- ▶ Use of low-quality paints.

How to solve it:

- ▶ Prime new surfaces before applying the topcoat.
- ▶ Use a high-quality paint that contains more binder to help prevent stains from penetrating the painted surface.
- ▶ Consider using paint with higher gloss or sheen in high-traffic areas.

Sagging



The downward “drooping” movement of paint film immediately after application, results in an uneven coating or sagging effect.

Sagging is caused by:

- ▶ Applying too much paint per coat.
- ▶ Painting under cool, humid conditions.
- ▶ Over-thinning the paint.
- ▶ Applying paint over a glossy surface that doesn’t provide sufficient “tooth” for the paint to bond.
- ▶ Airless spraying with the gun too close to the surface being painted.

How to solve it:

- ▶ If the paint is still wet, immediately brush out or re-roll to even out the paint film.
- ▶ If the paint has dried, sand the area and re-apply a fresh coat of paint.
- ▶ Be sure to correct any unfavorable conditions before repainting: Do not thin the paint, avoid painting under cool or humid conditions, and sand glossy surfaces.

Stain Bleed



When a paint film does not have the appropriate performance properties to properly seal in a stain, the stain can bleed through the coating and become visible on the surface of the film. Stains can include things like water damage, pen marks, wood tannins, smoke damage, and grease.

Stain bleed is caused by:

- ▶ Failure to clean stains prior to painting.
- ▶ Failure to apply the proper primer to the stain before painting.

How to solve it:

- ▶ Clean and remove stains prior to painting.
- ▶ Use a top-quality, stain-blocking primer and finish with premium paint.

Surfactant Leaching



Surfactant leaching appears as blotchy, sometimes glossy, tan or brownish spots on the surface of latex paints.

Surfactant leaching is caused by:

- ▶ Painting in cool, humid conditions, or just before or after rain. The longer drying time caused by these conditions allows the paint's water-soluble ingredients to rise to the surface before the paint thoroughly dries.
- ▶ Exposing a freshly painted surface to mist, dew, fog or other moisture.

How to solve it:

- ▶ Do not paint if temperatures are below 50° F in the late afternoon and if cool, damp conditions are expected in the evening or overnight.
- ▶ If the surfactant leaching occurs in the first few days after the paint is applied, the blotches or stains can usually be rinsed off with a strong stream of water from a garden hose.
- ▶ A month of normal weathering will remove even stubborn cases of leaching.
- ▶ Surfactant leaching does not affect the ultimate durability of the coating.

Tannin Staining



Tannins exist in many woods—most notably cedar and redwood—and can bleed through paint, leaving a yellowish-brown stain on the surface. These stains are more noticeable on lighter paint colors.

Tannin staining is caused by:

- ▶ Failure to adequately prime and seal a wood surface before painting.
- ▶ Using a primer that is not tannin-stain-resistant.
- ▶ Excess humidity or other moisture problems.

How to solve it:

- ▶ Locate and correct any excess moisture sources.
- ▶ Remove all loose paint with a scraper or wire brush.
- ▶ Remove stains with oxalic acid or an oxalic-based solution. Wear protective glasses and gloves when working with oxalic acid.
- ▶ Rinse with a pressure washer and allow the surface to dry thoroughly for at least 48 hours.
- ▶ Prime the stained area with a top-quality, stain-blocking wood primer.

- ▶ If severe staining exists, apply two coats of primer. Always prime edges and ends of shingles. If possible, prime the backs of shingles prior to installation.
- ▶ Tannin bleed is a surface problem, not a paint failure. Tannic acid will prolong the drying of oil-based primers and in some cases, you will have to wait three to five days for the primer to fully cure before repainting.
- ▶ Repaint using high-quality paint.
- ▶ If staining occurs during the application of the new coat of paint, sand lightly and re-prime the area before applying the final finish.
- ▶ Despite all precautions, a certain amount of bleeding will probably occur within one year after the wood is first painted. It is best to wait one year before repainting. This allows the tannins to surface and weather away normally.

Vinyl Siding Warp



When vinyl siding panels have been repainted improperly, they sometimes warp or buckle.

Vinyl siding warp is caused by:

- ▶ Repainting vinyl siding with a darker color than the original color (dark colors tend to absorb heat, transferring it to the surface).
- ▶ Once the vinyl siding has expanded, it is not able to contract to its original form.

How to solve it:

- ▶ Prevent vinyl siding warp by avoiding paint that is a darker color than the original color.
- ▶ Always repaint vinyl siding with a high-quality paint that is formulated for superior flexibility.
- ▶ Siding that is already warped or buckled should be assessed by a siding or home-repair contractor to determine the best solution. Unfortunately, the siding may have to be replaced.

Wax Bleed



The unsightly discoloration or “wetting effect” on hardboard siding that comes from additives used to make it more moisture-resistant.

Wax bleed is caused by:

- ▶ Failure to apply the proper primer to hardboard before painting.
- ▶ Allowing hardboard siding to weather before painting.
- ▶ Use of dark paint colors, which absorb heat and can accelerate wax bleed.
- ▶ Too little paint and thinly painted areas.
- ▶ Applying a hard finish over a softer coat without priming, or painting over a glossy surface without sanding.
- ▶ Using low-quality paints with without enough resin to prevent wax from bleeding through.

How to solve it:

PREVENTION

- ▶ Unprimed boards should be primed or painted within 30 days. Factory-primed boards should be painted within 90 days of installation.
- ▶ For unprimed boards, apply the recommended primer and two topcoats. Follow the recommended film thickness application on the label.
- ▶ Select top-quality, oxidative primers and topcoats for unprimed hardboard to help prevent wax bleeding.

ELIMINATING EXISTING WAX BLEED STAINS

- ▶ First determine if wax bleeding is the problem: rub the area with your finger. In severe cases, the wax will feel like an oily substance. Next, place a few drops of water on both normal and discolored areas. If the water beads up and runs off, a wax film probably exists. Finally, place a few drops of bleach on the discolored area. Household bleach does not affect wax, so if there is no whitening or bleaching, the stain is likely wax. Always wear eye protection and gloves when working with bleach.

- ▶ If the wax is light or moderate, the area can be cleaned with a detergent solution. In cases of severe wax bleeding, the surface must be cleaned thoroughly with mineral spirits. Take safety precautions and dispose of all waste materials in accordance with local regulations.
- ▶ Allow the surface to dry thoroughly.
- ▶ Use a high-quality primer and finish with the recommended Dunn-Edwards top coat.

Wrinkling



A rough, wrinkled paint surface can occur when the top coat dries before the bottom layer.

Wrinkling is caused by:

- ▶ Painting during extremely hot weather, which causes the paint film to dry faster on the top than the bottom.
- ▶ Painting when humidity levels are high.
- ▶ Applying too thick a film of alkyd or oil-based paints.
- ▶ Applying a top coat before the primer or first coat has dried thoroughly.
- ▶ Applying a hard finish over a softer coat without priming, or painting over a glossy surface without sanding.

How to solve it:

- ▶ First, remove the wrinkled layers. If the layers underneath are soft, they can be removed by scraping; if they are aged, you may need to use chemical paint removers (wear safety gear as directed).
- ▶ Sand until smooth and remove dust.
- ▶ Avoid painting in high humidity or extreme temperatures (below 50° F and above 100° F).
- ▶ Areas stripped to the bare wood should be primed with a high-quality primer and allowed to dry thoroughly.
- ▶ Apply a high-quality paint. Avoid wrinkling by brushing out each coat thoroughly and allowing it to dry completely before applying the next coat.

Yellowing



The development of a yellow cast in aging paint is most noticeable with white paints or clear varnishes.

Yellowing is caused by:

- ▶ Normal oxidation of oil-based paint or varnish.
- ▶ Exposure to heat from stoves, radiators, and heating ducts.
- ▶ Exposure of oil-based paints to household cleaners that contain ammonia.
- ▶ Lack of light (e.g., behind pictures or appliances, inside closets, etc.).

How to solve it:

- ▶ When repainting, use a high-quality latex paint (oil-based paints have a tendency to yellow, particularly in areas that are protected from sunlight and/or exposed to ammoniated cleaning products).

Please note that these suggestions are provided as a service to you. We are unable to guarantee or be responsible for the results obtained by these procedures. If you have additional questions, please ask a sales associate.



HEALTH & SAFETY: CAUTION! INHALATION OF SPRAY MIST OR SANDING DUST MAY BE HARMFUL. Scraping or sanding surfaces of older buildings (especially pre-1978) may release dust containing lead or asbestos. EXPOSURE TO LEAD OR ASBESTOS CAN BE VERY HAZARDOUS TO YOUR HEALTH. Always avoid breathing vapors, spray mist, and sanding dust. Wear the appropriate NIOSH-approved particulate filter mask or organic vapor/particulate respirator that is recommended for your specific activity. Use a HEPA vacuum for cleanup, and finish by water-washing all surfaces. For more information, see Dunn-Edwards brochure on “Surface Preparation Safety” or call U.S. EPA’s lead hotline at 1-800-424-LEAD, or visit www.epa.gov/lead or [/asbestos](http://www.epa.gov/asbestos), or contact your state or local Health Agency.

When working with paint and primer, avoid contact with skin and eyes. Do not ingest. Close container after each use. **FIRST AID:** If swallowed, immediately give 1 or 2 glasses of water to drink—for emergency information, call 1-800-222-1222. If having difficulty breathing, move to fresh air. For eye contact, immediately flush with water for 15 minutes. For skin contact, wash thoroughly with soap and water. **KEEP OUT OF REACH OF CHILDREN.** For more information, see the appropriate Product Data Sheet(s) and Safety Data Sheet(s) available at www.dunnedwards.com.

Surface	Recommended Primers	Alligating	Blistering	Blocking	Burnishing	Chalking	Corrosion	Cracking
Drywall	BLOCK-IT® Premium Interior/Exterior Stain-Block Primer (BIPR00)							
Natural Wood	EZ-PRIME® Premium Exterior Wood Primer (EZPR00)	●	●	●				●
Synthetic Wood	BLOCK-IT® Premium Interior/Exterior Stain-Block Primer (BIPR00)							
	ULTRA-GRIP® Premium Interior/Exterior Multi-Purpose Primer (UGPR00)	●	●	●				●
Masonry	EFF-STOP® Premium Interior/Exterior Masonry Primer/Sealer (ESPR00)	●	●	●		●		●
	SUPER-LOC® Premium Interior/Exterior Alkali-Resistant Masonry Primer (SLPR00)					●		●
Ferrous Metal	BLOC-RUST® Premium Interior/Exterior Rust Preventative Metal Primer (BRPR00)	●	●	●			●	●
Non-Ferrous Metal	ULTRA-GRIP® Premium Interior/Exterior Multi-Purpose Primer (UGPR00)	●	●	●				●
	ULTRASHIELD® Specialty Interior/Exterior Galvanized Metal Primer (ULGM00)	●	●	●			●	
Undercoaters	DECOPRIME® Interior Cabinet, Door & Trim Primer (DCPR00)			●	●			

Exterior

Desired Finish	Recommended Product	Aluminum & Vinyl Siding	Doors & Windows	Garage Doors & Gutters
Flat	EVERSHIELD® Exterior Flat Paint (EVSH10)	●		●
Velvet	EVERSHIELD® Exterior Velvet Paint (EVSH20)	●		●
Eggshell	ARISTOSHIELD® Interior/Exterior Eggshell Paint (ASHL30)			●
	EVERSHIELD® Exterior Eggshell Paint (EVSH30)	●	●	●
Low Sheen	ARISTOSHIELD® Interior/Exterior Low Sheen Paint (ASHL40)			●
	EVERSHIELD® Exterior Low Sheen Paint (EVSH40)		●	●
Semi-Gloss	ARISTOSHIELD® Interior/Exterior Semi-Gloss Paint (ASHL50)			●
	EVERSHIELD® Exterior Semi-Gloss Paint (EVSH50)		●	●
Gloss	EVERSHIELD® Exterior Gloss Paint (EVSH60)		●	●
High Gloss	ARISTOSHIELD® Interior/Exterior High Gloss Paint (ASHL70)			●

Interior

Desired Finish	Recommended Product	Bedroom	Ceiling or Office	Dining Room
Matte	EXQUISITE® Interior Matte Paint (EXQT10)	●	●	●
Flat	EVEREST® Interior Flat Paint (EVER10)	●	●	●
	SUPREMA® Interior Flat Paint (SPMA10)	●	●	●
Velvet	EVEREST® Interior Velvet Paint (EVER20)	●	●	●
	SUPREMA® Interior Velvet Paint (SPMA20)	●	●	●
Eggshell	EXQUISITE® Interior Eggshell Matte Paint (EXQT30)	●		●
	ARISTOSHIELD® Interior/Exterior Eggshell Paint (ASHL30)			
	DECOGLO® Interior Eggshell Paint (DGLO30)			
	EVEREST® Interior Eggshell Paint (EVER30)	●	●	●
Low Sheen	SUPREMA® Interior Eggshell Paint (SPMA30)	●	●	●
	ARISTOSHIELD® Interior/Exterior Low Sheen Paint (ASHL40)			
Semi-Gloss	SUPREMA® Interior Low Sheen Paint (SPMA40)			●
	EXQUISITE® Interior Semi-Gloss Paint (EXQT50)			
	ARISTOSHIELD® Interior/Exterior Semi-Gloss Paint (ASHL50)			
	DECOGLO® Interior Semi-Gloss Paint (DGLO50)			
	EVEREST® Interior Semi-Gloss Paint (EVER50)			
High Gloss	SUPREMA® Interior Semi-Gloss Paint (SPMA50)			
	ARISTOSHIELD® Interior/Exterior High Gloss Paint (ASHL70)			

PROTECT WHAT MATTERS

Your home is more than just walls; it's a protector of cherished memories and prized possessions. Safeguard it with coatings that have been engineered to last. You'll be doing your part to protect the planet, too. Made in the world's first and only LEED® Gold-certified paint manufacturing facility, Dunn-Edwards products meet or exceed most environmental standards.

For more information, additional how-to guides may be found in-store and online at dunnedwards.com.



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APPLY A HIGHER STANDARD™

Please note that these suggestions are provided as a service to you. We are unable to guarantee or be responsible for the results obtained by these procedures. If you have additional questions, please contact us or visit a Dunn-Edwards store.

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