

TOOLS AND MATERIALS

**What You'll Need:
Painting the Surfaces**

- Masking tape and plastic
- Extension ladders or scaffolding
- Drop cloths
- Caulk and caulking gun
- Hose or pressure washer
- Putty knife and putty
- Sandpaper
- Wire brushes
- Paint and primer or stain and/or clear sealer
- Rollers and tray, brushes, paint pads, and spray rig
- Water-based exterior primer and paint

Professional estimate

1900-sq.-ft. 2-story house,
approximately 90 hours

- Preparation: 16 hours
- Masking: 8 hours
- Spray: 8 hours/
Brush: 20 hours
- Trim: 16 hours
- Windows: 30 hours

Preparing the Surfaces

Good surface preparation makes the difference between a paint job that sticks around for a long time and one that takes a powder way too soon. In fact, the majority of paint problems can be prevented with good preparation. Paint doesn't stick well to a dirty or an oxidized surface, and a job isn't much fun without all the proper gear in place. Good preparation means the surface is clean, the seams and cracks are well caulked, there is no loose material, and all your gear is assembled.

Cleaning the surfaces

Occasionally, you'll coat new wood for the first time. If the new wood has weathered and had a chance to oxidize (this can happen in as little as a couple of weeks), rough it up by sanding it with 80-grit paper to create a clean surface. Don't go any finer than that, since a rough surface holds finish better. Brush the surface afterward with a bristle broom to remove the dust. Use paintable caulk to seal areas where the siding meets molding and windows, as well as other areas where water could enter. If you are planning to paint woods that tend to bleed into paint, such as cedar, redwood, mahogany, cypress, and fir, use a primer specifically designed to prevent bleeding.

More often than not, there is already paint, stain, or clear finish on the siding. You can't really see what you are up against unless you clean the surface first. If you have a pressure washer, now is a great time to use it. Use a wide fan and



Set the pressure washer on a wide fan and aim downward if you are working on lapped siding.

the lowest power setting. A narrow or high-pressure stream can drill right through soft wood and peel off paint and layers of wood fiber. Be gentle with it. Otherwise, brush off what you can while the surface is dry, and then wash it off with a garden hose. Remember to aim downward when you wash so you don't get water under the shingles or lapped siding. If a hose doesn't take off the dirt, mix 1 cup of detergent with 2 gallons of water and have at it with a scrub brush. Rinse it off well with the hose when you are finished.

Use scrapers or a wire brush to dislodge loose paint, peeling sections, or blisters. What remains should be solidly attached to the wood. Wherever paint was removed, feather the edges with a sander so there are no steps or ridges where old

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TRADE SECRET

Painting over wet wood is a recipe for disaster. Wet wood can make the new paint blister and peel in a very short time, undoing all your hard work. After you have washed down the house, leave plenty of time for it to dry, espe-

cially if water has penetrated any uncoated wood. If possible, leave a week between washing and painting to make sure you don't run into big problems later.



Use scrapers or a wire brush to dislodge loose paint.

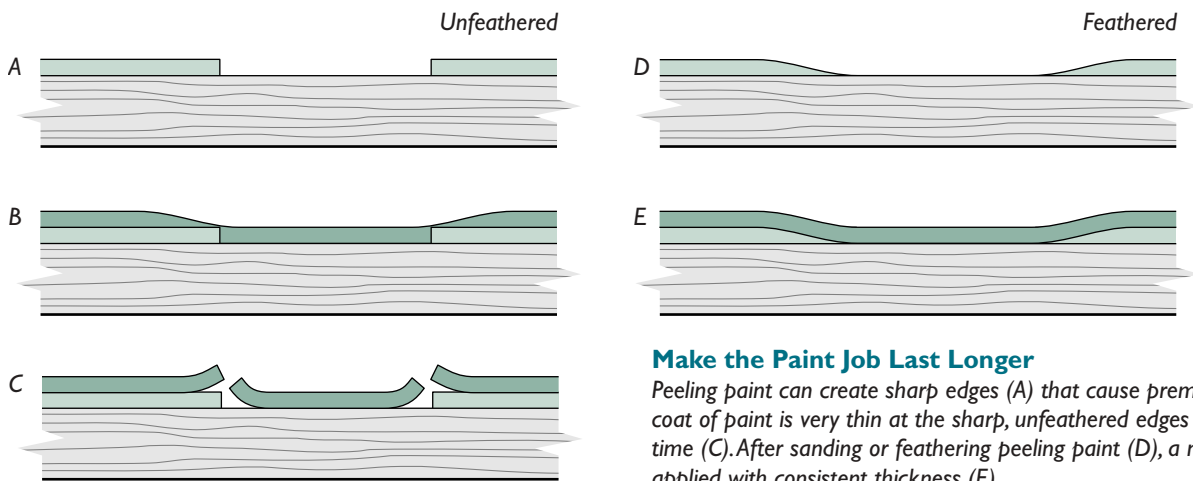
Repairing common paint problems

An important part of the preparation process is correctly diagnosing any problems that may exist in a previously painted surface. If you know exactly what kind of problem you are dealing with, it's much easier to remedy. The object is to create a good surface for adhesion.

Alligatoring. Very old, oil-based paints eventually crack and look like the skin of an alligator. This can also happen if oil is put over latex or if the top coat is put on before the undercoat is dry. Unlike most other paint maladies, this one requires that the old finish be completely removed before recoating. Once you are down to bare wood, apply a coat of water-based primer and two coats of paint.

Blistering. Bubbles and blisters in paint are most often the result of moisture pushing out from beneath the coating. This happens when it rains shortly after the paint has been applied,

paint meets raw wood. Ridges make new paint crack prematurely. If you've pressure washed first, let the wood dry for at least 24 hours before scraping so you don't dig into soft, wet wood.



Make the Paint Job Last Longer

Peeling paint can create sharp edges (A) that cause premature paint failure. A new coat of paint is very thin at the sharp, unfeathered edges (B) and cracks after a short time (C). After sanding or feathering peeling paint (D), a new coat of paint can be applied with consistent thickness (E).

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Pressure Washers

While a pressure washer isn't essential for cleaning your house, it can be a very handy gizmo to have around. You'll find yourself using it to clean the deck, driveway, sidewalks, and even the car. Pressure washers fall into two categories: light-duty electric units and

heavy-duty gas-powered ones. The former usually cost less than \$300, while the latter typically run from \$600 to \$1,000. The small ones are fine for cleaning the car and puttering around, but if you really intend to pressure wash your house, you will be a lot happier with a larger unit. Of course, you can always rent a pressure washer, too.

A cheap, electric pressure washer (foreground) is okay for odd jobs like washing the car, but you'll need a good, gas-powered unit (background) to tackle a house.



IN DETAIL

Painting over Old Paint

Whenever paint is peeling, blistering, or cracking, don't attempt to paint over it. That won't stop the peeling but only make the new coat peel off as well. In most cases, peeling is the result of oil-based paint that is simply too old or too thick. The best approach is to remove it. If you plan to repaint, there is no need to get fanatical about cleaning down to bare wood. Use scrapers or a heat gun to get off the lion's share of the paint. Once you get to the point where what little is left sticks stubbornly, switch tactics. Sand the surface with 80-grit paper until it is smooth, even if that means a mixture of feathered paint spots and bare wood. Then prime the entire surface before painting it.

when you paint over a still damp surface, or when you apply coatings in direct sunlight or high humidity. Scrape off the paint blisters, give the wood a chance to dry, and feather the edges with a sander. Prime bare wood and use latex paint. If there is moisture coming from inside the house, either ventilate it or add a vapor barrier before you repaint.

Chalking and fading. As it ages, paint may form a fine surface powder, called *chalk*, or lose color due to sun exposure. This can happen if you use interior paint outside, use cheap paint, or simply wait too long before repainting. Scrub off as much chalk as possible with a stiff bristle brush and a mixture of 1 cup of detergent to 2 gallons of water. Rinse it well with a hose or pressure washer. If you are able to remove all the chalk, you can omit the primer. Otherwise, prime before repainting.

Graying. Natural wood that has been left unsealed (or sealed with a clear sealer that has worn off) turns light gray as a result of oxidation. You can renew the color by washing the surface with a 5% solution of oxalic acid in water or by applying deck and fence brightener. After the treatment dries, rinse off the residue and let the wood dry completely before you recoat it.

Mildew and moss. Although it often looks like black or brown dirt, mildew is actually a fungus that likes to eat paint and stains, especially



On this deck, mildew grows only outside the drip line of the roof.

oil-based ones. It grows in damp areas, particularly under the eaves and on the north side of the house. Both mildew and moss are quite common on oiled or stained natural siding, but they show up on paint, too. Test a spot by dabbing it with full-strength laundry bleach. If it is mildew or moss, the spot will disappear. If it is dirt, it won't.

Remove mildew and moss with a pressure washer, or scrub the surface with a solution of 1 part bleach to 2 parts water. You can also use mildew removers, which are sold in the deck coating area of hardware and paint stores. Afterward, rinse the area thoroughly and prime any bare wood. When you recoat, make sure you use paint that contains mildewcide or add mildewcide to the paint yourself.



Alligatoring (courtesy Behr/Rohm & Haas).



Blistering (courtesy Behr/Rohm & Haas).

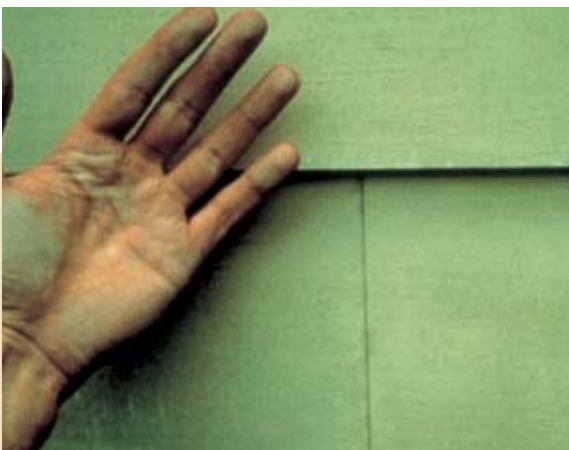
“Peeling is usually the result of moisture making its way up through the wood, especially when the wood has been coated with oil-based paint.”



Exposure to weather causes graying.

Peeling and cracking. Peeling is usually the result of moisture making its way up through the wood, especially when the wood has been coated with oil-based paint. It is often the next step after blistering. Cracking occurs when wood moves underneath dried paint. Causes include poor preparation; lack of a primer coat; painting in cold, windy, or very hot conditions; and applying an excessively thick top coat. If the condition is mild, scrape off what is loose and sand the surface. If it's severe and goes down to the wood, remove the old paint completely, then apply primer and a top coat.

Rusted nail heads. Exposed iron nails rust, even under a coat of paint. To fix the problem, sand the nail heads down to bright metal, then



Chalking and color fading (courtesy Behr/Rohm and Haas).



Bleach removes mildew quickly.

countersink them. Fill the countersunk holes with acrylic caulk, prime the area, and then repaint.

Tannin stains. This brown or tan discoloration is due to tannins bleeding up through the paint. It shows up in woods that contain water-soluble extractives, such as cedar, redwood, mahogany, cypress, and fir. The fix is pretty easy. Clean the surface well, and then coat it with a primer designed to prevent bleeding, like Bull's Eye 1-2-3 or Parks' Kilz.

Wrinkling. A number of things can make paint wrinkle, such as applying paint too thickly; painting on a surface that is too hot, too cold, or contaminated with dirt or wax; painting before the first coat has completely dried; or leaving uncured paint exposed to rain or high humidity. Scrape the surface, sand or wire brush the wrinkles, and feather uneven areas. Prime any bare wood before you repaint.

SAFETY FIRST

Any paint made before 1978 is likely to contain lead; paint made before 1950 contains a lot of lead. Do not sand, grind, or heat lead-based paint without learning all the precautions you need to take. Don't even hire a contractor to do it before you read up on the topic. Get the HUD publication *Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work* online (<http://www.hud.gov/lea/leahome.html>), or contact HUD at: Office of Lead Hazard Control, 451 Seventh St. SW, Room P-3206, Washington, DC 20410, 202-755-1785.

IN DETAIL

Removing Old Paint

Removing many layers of old paint from wood siding is hard work. While you can remove it with scrapers, a sander, or a heat gun, you may want to consider renting or buying a power paint remover. A power stripper is an aggressive disk sander configured just for this purpose and is able to chew through many layers of old, cracked paint in one pass. You can set the depth of cut so that it quickly grinds off paint without going through the wood. Don't go any finer than 80-grit paper, though, since paint adheres better to a slightly rough surface. The job is still messy, so tarp the ground, wear goggles and a dust mask, and plan for cleanup as part of the task. Even with the best equipment, removing paint is a big job and one you may want to farm out to a pro.



Peeling (courtesy Behr/Rohm and Haas).

Removing old finish

Stripping exterior paint is just like stripping interior paint but on a larger scale. Fortunately, it is only necessary in rare cases. If you have to strip, start from the top and work down, using scaffolding and ladders to get to the upper reaches. Spread tarps or drop cloths at least 10 ft. out from the house to catch the chips. Scrape what comes off easily, and then follow up with a heat gun, sandpaper, or a power sander. If you are planning to repaint, don't worry too much about those really stubborn areas that just won't budge. If they are that tenacious, they won't be a problem when you recoat. Just make sure you feather them well.

If you are planning to apply a clear finish or a penetrating stain, remove the old finish or stain with a chemical stripper designed for decks. Make sure you wear safety gear as you roll, brush,



A garden sprayer is a cheap, portable way to apply stripper to shingle siding.

or spray on the stripper. Leave the stripper on for the recommended amount of time, and then wash it off with plenty of water. If you are planning to paint over a stained surface, there is no need to strip off the old finish. Simply wash the surface well and seal it with a primer designed for oil stains.

Spot-sanding and spot-cleaning

Now is the time to check for rough spots, dirty areas, or tree sap. Sand any rough spots with

“Stripping exterior paint is just like stripping interior paint but on a larger scale.”



Rusted nail heads (courtesy Behr/Rohm and Haas).



Tannin stain (courtesy Behr/Rohm and Haas).



3M makes a special light-green sandpaper specifically designed for latex paint.

80-grit paper. If you go through to raw wood, spot-prime the area. Clean especially dirty areas with detergent in warm water and a nylon abrasive pad. Remove tree sap with an abrasive pad and mineral spirits.

Caulking and spot-priming

Chip or scrape off old, brittle, or peeling caulk from around windows, edges, and seams. If you have to, sand a bit to get to a clean surface. You don't need to go down to raw wood, but you don't want to caulk over anything that is loose. Recaulk areas where water can enter with exterior paintable acrylic, multipolymer, or polyurethane caulk. If you've added new moldings or windows, make sure you caulk around new wood, as well. One of the primary causes of paint



Caulk upward, pushing a bead of paintable caulk in front of the nozzle as you work.

failure is water seeping under the paint, often through the end grain. Thorough caulking can prevent this and make a paint job last longer. (For more on caulking, see pp. 132–135.)

If you have scraped and sanded some areas down to raw wood, you need to prime them before repainting. It is tempting to ignore a small area, but that may well be the start of a new



Spot-prime areas of raw wood before you paint.



Wrinkling (courtesy Behr/Rohm and Haas).

WHAT CAN GO WRONG

Spray Down, not Up

If you have shingles or lapped siding on your house, make sure you only wash downward. Don't spray water upward or you will get water behind the siding. This is especially important if you are using a pressure washer. You could soak the insulation, cause leaks, and drench the unfinished back of the siding. Wet siding may take weeks to dry. Don't paint while it is still wet or the finish will peel and blister prematurely.

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The Right Brush

Natural bristle brushes are great for oil-based paints, but use synthetic ones for water-based coatings. You'll find both nylon and polyester bristle brushes, as well as combinations of the two filaments. Buy better quality brushes even though they cost more. You'll really see the difference when you start to paint. And always presoak the brush in the appropriate solvent (mineral spirits for oil, water for latex) before you start.



Synthetic bristles (left) work with all paints, but natural bristles (right) don't work well with water-based coatings.

round of peeling. Use a stain-sealing primer, such as 1-2-3 or Kilz, on bleeding woods, like redwood, cedar, fir, and mahogany. For other woods, use high-quality, exterior latex primer.

Masking and tarping

Mask off what you don't want to paint. Window frames, concrete footings, natural wood soffits, adjacent decks, shrubbery, and sidewalks are candidates for masking. Use plastic or canvas drop cloths or tarps for ground coverage, and paper or plastic media for vertical sites. Bear in mind that masking tape gets harder to remove the longer it remains, so mask right before you are ready to paint and remove the tape as soon as the paint dries. Some specialty tapes, such as 3M 2090 Long Mask, are designed to stay on longer and peel off easier without tearing or leaving adhesive residue.

Using ladders and scaffolding

While I'm sure you've heard this before, it bears repeating: Make certain your ladder or scaffold is



There are a wealth of masking and taping products that make painting clean lines easier.



It's a whole lot easier to paint a line if you mask what you want to keep clean.

set up securely. If the ground is uneven, use leveler feet. Once you get on the ladder or scaffolding, work only the areas you can get to easily, and don't try to overreach. Instead, stop and reposition the ladder. While it may take extra time to move the ladder just for that one little spot you can almost reach, you'll be safer and happier (and healthier) if you make sure your ladder is properly positioned. If you have hung anything on the ladder, such as a roller pan, scraping tool, or bucket of paint, take it down with you before you move the ladder. It may seem like you could balance the whole thing while sliding the ladder over just a foot or two, but it will look different when you are standing there with a bucket of paint cascading down your head.

“Make certain your ladder or scaffold is set up securely.”



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Colors Galore

Your home store can mix any color you want—designer colors, bright colors, pastels. Just take in an item in the color you want. In some cases, they'll simply find the closest color chip that matches. But more and more stores are turning to color-matching computers that read the sample and instantly match a paint color to it. Even in the seemingly low-tech arena of painting, computers have their place.