

# Read this before you strip paint from wood

Finding out which method to use, and how to contain the debris, makes a messy job cleaner, safer, and more effective BY TOM O'BRIEN + PHOTOGRAPHS BY ANDREW McCAUL

➔ **EVERYONE KNOWS** that the simplest way to rejuvenate a tired surface is to put on a fresh coat of paint. Eventually, however, all new paint becomes old paint. Whether it cracks and blisters or just forms a lumpy blanket of pigments and binders, it begs to come off.

Clearing away the old stuff and starting over with a baby-smooth, bare-wood surface is ideal. Getting there is tedious, dirty work, no doubt, but our start-to-finish guide will help you manage the mess and choose the best tools and techniques to get the results you want.

## Which tools for which project



**HEATERS** use high temperatures to soften varnishes or multiple layers of paint so that the gunk can easily be removed with a scraper. They minimize dust and can lift years of paint. Downsides: Fumes and the risk of charred wood.



**CHEMICAL STRIPPERS** are liquids, gels, or pastes that dissolve paint. No dust. No paint chips. They're ideal for fine details, awkward shapes, and hitting spots you may have missed with a heat gun. Cons: They can be messy, smelly, and slow.



**SANDERS**, including power sanding disks and clapboard sanders, grind away paint. They're great for large, flat exterior surfaces but, unless hooked up to a vacuum to capture dust, ill-advised for indoor work and anything with lead-based paint.



## HOW TO KNOW WHEN WOOD IS WORTH EXPOSING

"If you're hoping to expose woodwork and finish it with a clear coat instead of paint, you need to determine whether it was originally varnished or painted," says painting contractor and *TOH* contributor Rich O'Neil. He recommends finding a hidden spot, such as inside a drawer or closet, and using a scraper to shave a test patch through the various paint layers. If the bottom layer is paint, it's a good sign that the wood is unworthy of stain. "If it's worth exposing, it was originally varnished," O'Neil says.

ILLUSTRATIONS: ERIC LARSEN

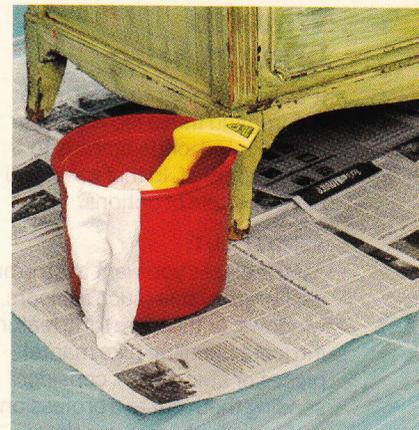
## Three easy ways to test paint for lead

Nearly 90 percent of homes built before 1940 have some paint laden with this toxic metal. Although its use went into steep decline after 1950, lead-based paint wasn't banned in the U.S. until 1978. Here's how to detect it.

**DIY TEST:** Use a utility knife to make a V-shaped cut through all the layers of paint, then brush the groove with a LeadCheck swab (leadcheck.com). A bright red color indicates lead is present.

**LAB TEST:** Scrape a tablespoon of chips into a bag and send them to a lab for testing. It can take up to two weeks to get the results, but they're more reliable than a swab and typically cost less than \$30 (prolabinc.com).

**CALL A PRO:** For a few hundred dollars, a licensed lead inspector will conduct an X-ray fluorescence test to identify the amount of lead present in all the painted surfaces in your home.



## Dress for the job

Gear for handling fumes, paint chips, and caustic solvents

1] Put on clear wraparound safety glasses to guard against splashes, dust, and flying debris.

2] Use a respirator with a chemical cartridge for indoor work with paint strippers.



Use a respirator with a P100 particulate filter when sanding or dry-scraping.

3] Wear disposable coveralls or old pants and a long-sleeve shirt to protect your skin.

4] With chemical strippers, wear green nitrile or black butyl rubber gloves as recommended on the manufacturer's MSDS. Opt for construction-grade gloves for scraping and heat stripping.

5] Wear disposable booties, and contain dust and dirt by taking them off whenever you leave the work area.



## GET THE LEAD OUT—SAFELY

Lead is nasty. Exposure can raise your blood pressure, stress your nervous system, and damage your memory, among other risks. It's especially toxic to children, whose developing brains are more sensitive to its effects. If you want to remove lead-based paint yourself, in addition to the dress and prep steps on this page, follow these precautions:

- > Use only heat or chemicals to avoid kicking up lead-laced chips and dust.
- > If you must sand, use equipment fitted with a shroud and a HEPA vacuum attachment.
- > Wet-sand stripped surfaces to minimize dust.
- > If working outdoors, cover the ground with 6-mil plastic, extending the sheeting 10 feet beyond the work area.
- > Place debris in contractor bags; seal with duct tape.

Find more useful tips at [www2.epa.gov/lead](http://www2.epa.gov/lead).

## Prepare to strip indoors in 3 steps

1] Skip canvas drop cloths in favor of 6-mil plastic sheeting, which won't trap fine grit or let chemicals seep through. Extend the sheeting at least 6 feet beyond the work area and overlap and tape the edges. To help avoid slips and absorb spills, cover the plastic with a layer of newspaper or contractor's paper.

2] Remove or cover items you do not plan to strip. If using chemicals, mask hinges and other hardware you can't remove with solvent-resistant painter's tape, like ScotchBlue. If working with heat, protect adjacent surfaces with aluminum-foil tape or a metal paint shield.

3] Use 6-mil plastic sheeting and duct tape to seal off the workspace from the rest of the house.

## DUST CONTROL

If working indoors, cover air vents in your workspace to keep dust and debris from circulating throughout the house.

## When to bring in a pro

It's always better to determine beforehand that a job is too big, complicated, or dangerous to tackle yourself. In that case, you have a couple of options.

### SEND IT OUT:

> If the pieces you want to strip are easily removable (such as doors, windows, or furniture) and feature intricate detailing (like mantel-pieces or stair parts), consider sending them out to a professional with a dip tank; pros use these special vats to soak entire pieces in liquid paint removers for faster, more thorough results.

### HIRE IN:

> If you have a house's worth of trim or siding that must be stripped bare quickly, or if you have lead-laden paint and can't remove it safely, bring in a qualified pro to do it on-site. Visit the EPA's website for certified lead-removal experts: [cfpub.epa.gov/flpp/searchrrp\\_firm.htm](http://cfpub.epa.gov/flpp/searchrrp_firm.htm).



## DCM: THE PAINT SOLVENT BEST LEFT ALONE

Years ago, if you needed a fast-acting chemical paint stripper, you chose a product that contained a seriously noxious chemical called methylene chloride (also called dichloromethane, or DCM), cranked up the fan, and got the job done quickly. Generally speaking, the faster a chemical eats through paint and finish, the more toxic it is, and DCM is fast—paint starts to bubble in minutes. It's also dangerous. Prolonged exposure to DCM, through the lungs or skin, has been linked to liver damage, cancer, and even death. The vapors can overwhelm air-purifying respirators, and just a few whiffs can leave you wheezing and dizzy. Europe banned it for residential use in 2010. While DCM-containing paint strippers are still widely sold in the U.S., the Centers for Disease Control and Prevention has tied the ingredient to 13 deaths in 10 states. Our advice: Check your labels and steer clear.



Speedheater infrared paint remover

## Three tools to melt away paint

Heat is a tried-and-true method for softening thick layers of paint on flat surfaces or in tight spaces. The trick is to find the right temperature: too low and the job takes forever, too high and you could create harmful vapors, char the wood—or even set the house on fire.

**HEAT GUNS** look like high-powered hair dryers and blast hot, concentrated air through a nozzle to loosen paint. Most models have HIGH and LOW settings, but burns and fires can result even on the lowest setting if you let the gun rest in one place for too long.

**INFRARED DEVICES** use infrared rays to heat up and loosen the bond between paint and its substrate without generating noise or dust. They work quickly; a 30-second blast can soften decades of paint. They also keep paint temperatures below 500°F, well under the point at which wood ignites. The heat draws moisture from the wood, improving its ability to hold new paint. But these tools are bulky (see example, above) and hard to use in tight spaces.

**STEAM STRIPPERS** use water vapor to soften paint without heating it above 212°F, eliminating fire risks. And the condensation minimizes dust and fumes. On the downside, the process can generate a lot of moisture and saturate wood.

## Safer options for removing paint with gels and pastes

If you're going to use a chemical stripper, know that anything that eats paint is dangerous and that doing the job without methylene chloride (see above) will be safer but slower. These products contain less toxic, less noxious ingredients and remove both latex and oil paints.



**SMARTSTRIP** (\$64 per gallon)  
A paste with a frosting-like consistency that can be brushed, rolled, or sprayed on. Clings well to vertical surfaces. Active ingredient: Benzyl alcohol  
Strength: One coat removes up to 15 layers of paint.  
Dwell time: 3 to 24 hours  
Removal: Scrape off the paint, scrub off the residue with a wet nylon brush, and rinse with water.



**PEEL AWAY 1** (\$45 per 1¼ gallons)  
This paste works with a paper cover to control evaporation. Ideal for lead paint and masonry, but can stain furniture woods. Active ingredient: Lye  
Strength: Up to 30 layers of paint can come off as easily as stripping sheets off a bed.  
Dwell time: 12 to 24 hours  
Removal: Peel off the paper and scrub the surface with a wet brush; let dry thoroughly, then apply a neutralizing solution.

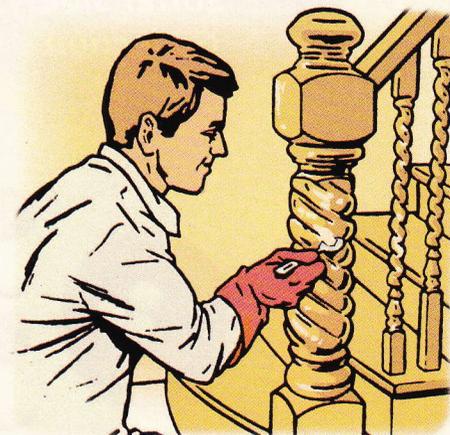
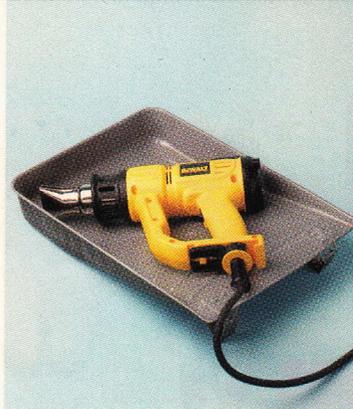


**CITRISTRIP** (\$20 per half gallon)  
An orange gel, best on furniture details and flat surfaces since it is thin. Active ingredient: N-Methyl-2-pyrrolidone (NMP)  
Strength: A ¼-inch coat removes up to seven layers of paint.  
Dwell time: 30 minutes to 24 hours  
Removal: Scrape off the paint with a plastic scraper, and use an abrasive pad and mineral spirits to remove any lingering residue.



## The best technique for handling heat

Heat stripping is like a tango between the hand holding the heater and the one with the scraper. Hover the device over the surface. When the paint bubbles, slowly move the heater along and try to develop a rhythm so that you're scraping and heating in unison. Keep a metal paint tray handy for when you take a break and need to set the device down.



## PAINT SCRAPERS 101

No paint-stripping endeavor is complete without an arsenal of scrapers to usher away softened paint.

- > A 5-in-1 scraper—also known as the “painter’s tool” because the curved edge can be used to clean a paint roller—is the go-to tool for removing most types of paint.
- > Metal pull scrapers come with replaceable blade profiles to match the surface you need to strip, offering more control than push scrapers in tight spots or on fine details.
- > When your scraping results start to look sloppy, rotate the head on the metal scraper until you run out of fresh edges. After that, replace or sharpen the blades.
- > Carbide blades hold an edge much longer than steel, but sharpening requires a diamond stone and some skill.
- > Steel blades dull quickly but can easily be resharpened with a mill file, a pocket stone, or even a piece of medium-grit sandpaper.
- > When using push scrapers, choose plastic over metal, to avoid gouging; this is especially important with chemical strippers, which can soften wood.

### PRO ADVICE

“Keep a hand file nearby to quickly restore the edge of a steel scraper,” says *TOH* general contractor Tom Silva. “Brace the scraper against a flat surface, try to follow the original bevel, and always file in the same direction.”

### Detail work

Some simple tools can help you get rid of those last bits of paint.

**DENTAL PICKS** make it easy to dig out the remaining specks of debris that hide in nooks and crannies.

**SANDING CORDS** work like dental floss to remove residue from crevices in turned columns and spindles.

**OLD CREDIT CARDS OR GIFT CARDS** can be repurposed as custom scrapers by cutting them to match the surface you need to strip.

**TEASPOONS AND TABLESPOONS** are handy for scraping paint from concave or convex moldings.



ILLUSTRATION: ERIC LARSEN

## THE RIGHT WAY TO CLEAN UP

- 1] Use water to mist the debris on layers of paper and plastic drop cloths underfoot before carefully folding them, dirty side inward. Tape all edges shut or seal in heavy-duty trash bags for disposal.
- 2] Vacuum the entire work area with a vacuum equipped with a HEPA filter to pick up any dust and debris.
- 3] Wipe surfaces with a damp cloth or sponge and a household detergent; empty the dirty rinse water into a container, never a sink, bathtub, or toilet. Check with your town about hazardous-waste collection programs.
- 4] Give the surfaces and any uncarpeted floors a final wipedown with a clean, damp cloth. ■

