



# ***Cleaning Floors Before Concrete Staining: Tips from the Pros***

***By Anne Balogh, The ConcreteNetwork***

Once homeowners see how beautiful and easy to maintain decorative stained concrete floors can be, they often are eager to rip up their grungy carpets and yellowed vinyl tiles to expose the concrete underneath. These enlightened homeowners have become a significant market segment for stain applicators. But those newly naked floors often need extreme cleaning before they can be adorned with chemical stains. [\*Continue >\*](#)





“We’re seeing a lot of remodeling going on, and that’s a lot different from new floor staining projects,” says Barbara Sargent of Kemiko Concrete Products, Leonard, Texas. “When you pull up carpet or tile, you never know what you might run into.” Carpet glue, tile mastics, water and urine stains, chalk marks, caulk, grease stains, paint drips, and rust spots are just a few of the contaminants that staining contractors have encountered, she notes.

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### **The Importance of a Clean Surface**

With chemically stained floors, the consequences of substandard cleaning can be difficult to remedy. Unlike paints and coatings for concrete, which are opaque and can disguise many evils, acid stains are transparent. Any unwanted residue remaining on the floor is likely to show through the newly applied stain.





## Questions to Ask When Selecting a Remover or Cleaner:

- What substances will it remove?
- What are the recommended applications?
- Is it environmentally safe?
- Does it emit fumes or noxious odors?
- Is it compatible with the chemical stain you will be applying?
- Is it safe for indoor use?

“If you are negligent in the cleaning process, it can literally change the entire end effect. A substandard cleaning job will really show up once the final sealer or wax is applied,” says Sargent.

Chemical stains also need to penetrate into the concrete surface to react with the lime in the concrete. Any materials that inhibit concrete stain penetration, such as grease, oil, or curing membranes, will prevent the color from taking, says Tom Schmidt of Jagger Scored/Stained Concrete, Plano, Texas, a company specializing in decorative staining of residential and commercial concrete floors.

Curing membranes, which he encounters more on commercial projects than on residential jobs, are especially difficult to remove. “Even after you clean the surface, the curing compound may have migrated down into the pores of the concrete and the stain will react minimally. You may get marks that look like water spots,” he says.





Schmidt also warns against acid etching of floors before staining. “A lot of people think they need to acid etch the concrete like they do before applying a paint or coating, to get the paint to adhere. But acid washing depletes the lime content, which is what the minerals in the acid stain react with.”

## Finding the right cleaning product is often a trial-and-error proposition

### Trial and Error

Kemiko, which has been selling acid-based chemical stains for more than 30 years, has an extensive list of concrete cleaning products posted on its web site ([www.kemiko.com](http://www.kemiko.com)) as a handy reference for contractors and do-it-yourselfers. “We have a lot of professional applicators of our chemical stains, and as they discover new cleaning products, they call us and we try them out,” says Sargent, explaining how the list was compiled.





However, finding the right cleaning product is often a trial-and-error proposition, she admits. “You can’t always tell what a stain on concrete is by appearance alone. What you may assume is an oil-based stain may be something else. We recommend that contractors test products first to verify their effectiveness.”

Also be sure to read the label on the container to find out what substances the product can remove. A solution formulated to strip latex paint may be ineffective at removing grease or oil. The label can also provide other valuable information you’ll need to know in order to choose the best product for the job (see “Questions to Ask When Selecting a Remover or Cleaner”).

While Kemiko doesn’t endorse any particular cleaning product, it does favor those that are safe for the environment, people, and pets. “There are some really good products out there that are environmentally safe,” says Sargent. “We’ve tested a mastic remover made from soy beans, for example, that absolutely emulsifies even the oldest mastic residue.”





Sargent also recommends that stain applicators check environmental restrictions in their area to find out what products they are permitted to use. She advises contractors to be extremely cautious when using petroleum-based strippers, which tend to be high in volatile organic compounds (VOCs) and can be highly flammable (see “Precautions When Using Chemical Strippers”.)

**The methods you use to clean the floor are equally as important as the products you choose.**

But on some jobs, contractors may have to resort to strong medicine to remove certain contaminants. For example, Schmidt sometimes uses lacquer thinner or xylene to take up curing compounds.

### **Cleaning Techniques**

The methods you use to clean the floor are equally as important as the products you choose.





For general-purpose cleaning and degreasing, Schmidt sweeps the floor and then scrubs it thoroughly using trisodium phosphate (TSP). For scrubbing, he recommends using a rotary floor scrubber with a green Nylo-Grit pad designed for aggressive scrubbing of concrete. If he must remove glue, mastic, or paint from the floor, he uses nonflammable chemical strippers, which he finds at Home Depot, Lowes, or Sherwin-Williams.

Bob Harris, president of the Decorative Concrete Institute and author of *Bob Harris' Guide to Stained Concrete Interior Floors*, says caulking compound and mastic are two of the most difficult substances to remove. He scrapes off as much material as possible using a putty knife or floor scraper and then applies a poultice to remove the remainder. For a poultice, he recommends mixing an inert fine powder, such as fly ash or hydrated lime, with denatured alcohol to make a smooth paste. Once the poultice dries, the caulk or mastic residue usually is brittle enough to remove with a stiff-bristle brush.



After using degreasers, chemical strippers, or other cleaning compounds, it's necessary to clean the floor again to remove all residue. Schmidt scrubs the surface once again with TSP followed by a thorough rinsing with clean water.

After the final rinsing, Schmidt often uses an industrial wet vacuum to remove all water and debris. "If you just use a mop for the final wash, you're simply moving the residue around," he says, adding that using a wet vac also helps the floor dry out much faster.

### Precautions When Using Chemical Strippers

Some chemical strippers can be extremely hazardous to breathe and apply, especially if you're working in an enclosed environment. Be sure to read the Material Safety Data Sheet (MSDS) for the product to check for potential hazards and health effects. Products containing petroleum also are flammable and can be dangerous to use around floor scrubbing machines, warns Schmidt, because electrical sparks could ignite a fire or explosion.

If the chemical stripper you're using is not environmentally safe, it must be disposed of properly. "We retain the product in plastic buckets and then take the buckets back to our warehouse, where we put them into a hazardous waste container for disposal," says Schmidt.





## When All Else Fails

Occasionally you may encounter deposits that refuse to surrender to your best cleaning efforts. If scraping or chemical stripping are ineffective at removing glues, caulk, mastics, or other heavy contaminants, Harris says that you may need to resort to mechanical removal methods, such as grinding. However, be aware that mechanical abrasion can also remove a layer of the cement paste from the surface, which will cause the stain to react differently. Grinding can also leave swirl marks in the slab if you're overly aggressive.

When Schmidt is unable to completely eradicate stubborn discolorations, he camouflages them. "After we get done staining and sealing the floor, we go back and 'faux paint' any objectionable spots and apply another coat of sealer." He also uses this method to remedy any areas where the chemical stain doesn't take completely.



***Anne Balogh writes feature articles each month for The Concrete Network ([www.concretenetwork.com](http://www.concretenetwork.com)). She is a freelance writer based in Glen Ellyn, Ill., and a former editor of Concrete Construction magazine.***



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## NAVIGATION & USER TIPS

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The Concrete Sherpa is a team of people that represent the experience, teaching and learning of our team members and other industry leaders *on a mission to make life better for the concrete contractor*. We are an idea center striving to deliver thought provoking ideas based on “Concrete Advice for Business and Life” to stimulate you to reach new heights. As a user, you should remember to consider all information you receive, here at the Concrete Sherpa or elsewhere, not as a *cast in concrete* recommendation, but rather as an idea for you to consider and ponder.



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### THE JOURNEY LEADING TO THE CONCRETE SHERPA PROJECT

The Concrete Sherpa Project (A [Sherpa](#) is a “guide”) was born at The Concrete Network in mid 2004. Here is how it happened:

The biggest surprise, or gift, since starting The Concrete Network in 1999 has been the concrete contractor friends from around the country we’ve made and witnessing the passion they have for what they do. These people include Dave Pettigrew, up in the San Francisco Bay Area, or the Verlennich brothers in Minnesota, or Bob Harris in Georgia, the list goes on and on. It’s quite inspiring.

We were once asked, “How are you so excited every day about concrete?” Well the answer is simple, it is impossible to not be excited about concrete when you have the job we do—interacting with hundreds of concrete contractors from every state in the country.

The thing we’ve learned about concrete contractors is that most are passionate *craftsmen*—they are often less passionate and experienced in the “office stuff”. Human nature channels us to do what we are most comfortable with; learning how to use a new saw-cutting tool is comfortable; learning and implementing a new estimating strategy, or job management tool, is not so comfortable.



## *Sherpa info*

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### THE JOURNEY CONTINUES...

So Sherpa was born to provide FREE and easy to use information on topics many contractors are not too comfortable with.

- Concrete Sherpa is here to provide help to contractors who are often ‘Lone Rangers’ and don’t have anyone to get solid business advice from.
- Concrete Sherpa is here to provide help for contractors who have to work too hard and too many hours in their business, and one day realize they need to work *on their business, not in their business*.
- Have fun with Concrete Sherpa and go faster towards reaching success than you might have on your own.
- To skeptics who think something free can’t be valuable, or there must be a trick- visit Concrete Sherpa and decide for yourself.

We hope you make great use of the Concrete Sherpa and it helps you to become an awesome success for yourself, your family, your church, and your community.

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