

## Densifying a Concrete Floor

When do you need to apply a Denisfier to a concrete floor? Concrete surfaces face two major obstacles to polishing: bleed water and pores. Excess water in newly placed concrete rises to the surface. This bleed water carries with it the finest aggregate and laitance, making it much softer than the slab's core. It also increases the water to cement ratio, which further weakens the surface. Densifiers address this problem by binding to available lime in a pozzolanic fashion, creating additional cementitious material and strengthening the surface.

Concrete is by nature a porous material, with pores formed by water evaporation during curing. These pores interfere with surface uniformity, and make the slab more susceptible to staining from spilled liquids. The additional cementitious material formed by the densifier fills these pores. Viper Concrete and Stone Densifier fills in pores and capillaries in concrete for a smoother surface and increases surface density so you can achieve a higher gloss. Using Viper Concrete and Stone Densifier on concrete before polishing will speed up the results and enhance the resulting shine on the floor.

### Directions

#### Pretesting:

Floor temperature should be above 50 degrees F and below 100 degrees F for several hours before and after application. If applied outside, it should not rain for several hours after application. Check the absorbency of each slab before proceeding.



Spray section with water to determine if absorbency is consistent. This will also help you determine the coverage that should be expected. Wax or urethane or other topical coatings need to be thoroughly stripped before application.

#### Cleaning:

Surface needs to be structurally intact and thoroughly cleaned before application. Do not use pine or d'limonene-based cleaners without additional rinsing. Application can start as soon as surfaces are dry. Air movers can be used to shorten drying time.

#### Application:

Protect surrounding surfaces from overspray and splashing of the product. Apply undiluted with low pressure sprayer. Apply enough product to wet the surface without forming puddles. Spread evenly with soft synthetic brush. Surface should look dry in 5 to 10 minutes. Any areas that dry prematurely should be sprayed again. Allow treated surfaces to dry before any additional procedures are initiated. After drying, remove any powdered residue using a stiff brush before continuing. At this point the floor can be polished and/or sealed. Polishing time will be reduced and less surface will absorb less sealer. Adjust procedures and/or applications appropriately.



# Concrete Cleaning, Degreasing, Brightening, Sealing and Densifying Procedures Guide

## Overview

Concrete is a mixture of cement, water and aggregate, which dries to a hardness that resembles stone. Concrete has existed in one form or another since Babylonian times. Romans created concrete mixtures made of gravel, sand, lime and water, with horsehair thrown into the mix to prevent shrinkage. Today, concrete is used in a variety of ways as flooring surfaces that a professional cleaning contractor may be asked to maintain.

Concrete staining can be used to create a stone like appearance. Concrete can be tinted the color of brick in a deep rust color or a faded brown, among several others, and stamped to look like real brick flooring. They can also achieve the look of cobblestone or flagstone. The concrete can be tinted with the stone color of your choice and stamped with cobblestone or flagstone stamps. To get the look of hardwood floors with concrete, regular or wide-plank hardwood stamps are used. These stamps are created from pieces of real wood and create a very realistic looking surface.

A plain concrete basement floor can be enhanced and finished with a tinted concrete sealer. You can choose from a variety of jewel-tone and earth-tone colors. Tinted concrete sealers can be applied over stamped concrete or stencils and produce a durable surface when applied in thin layers. If you like the look of painted concrete, it's an inexpensive way to improve your plain concrete floor. You have to apply a primer, and choose paint that's designed for concrete applications. Today, polished concrete is the floor of choice with many large retailers and home improvements stores as well as homes. As you can see, concrete is not just concrete any more.

So what do all these concrete surfaces have in common? They can become heavily soiled and dulled with a build-up of soil, oil, grease, oxidation, sunlight, and more. Many would think only of using a mop and bucket indoors or a hose outdoors to clean concrete. But once you move beyond the traditional concrete driveway, it quickly becomes more complicated than that. Concrete is often an uneven surface. It is a porous material allowing spilled material drips and soil to easily penetrate, getting deep into the crevices and pores of concrete.

Dealing with the soil build-up in seams and cracks, and maintaining the finished look of a treated concrete are often best handled by the professional hard surface cleaning equipment and tools that only a professional carpet cleaner or restorer maintains. The waste water handling and collection ability of your truck mount or high performance portable is becoming an environmental necessity outdoors, and is almost a requirement indoors for the deep cleaning of concrete surfaces. Your rotary hard surface tools like the HydroForce SX-15 not only speed up the cleaning and drying of a concrete floor, they also do a much better job of removing absorbed soil and oil from the porous concrete surface. Now Hydro-Force, through its Viper line of hard surface floor cleaning products provides you with a complete line of concrete cleaning solutions to clean, brighten, degrease, and densify concrete flooring. The Viper line of concrete, tile, and grout cleaning products utilizes the oxidizing power of hydrogen peroxide to create an activated effervescent solution that gets into every crevice, crack and pore of concrete to emulsify, dissolve and deflocculate even the most stubborn soiling.



## Sealing Procedures for Stone, Concrete, Tile & Grout

### General considerations

- Apply after cleaning. If using a densifier, apply after densifier has dried. Remember that the concrete will absorb less sealer after being densified and/or polished.
- Protect surfaces not being sealed.

### Application Procedures

1. For concrete floors and surfaces, apply Viper Grout & Concrete Sealer. Use finish mop or moss rubber squeegee to spread evenly across surface. Sealer can also be sprayed on with low pressure pump-up or battery powered sprayer.
2. An optional second coat may be applied to porous concrete after the first coat has dried.





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## Cleaning and Brightening Concrete Floors

Viper Peroxibright CTG cleans and brightens grout lines without the use of harsh acids and chlorine bleaches that can damage the grout and surrounding flooring materials. It cleans, refreshes, and brightens concrete, tile and grout without leaving watermarks or residue like other cleaning chemicals can.

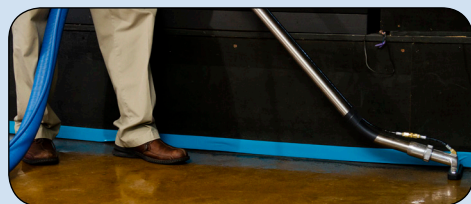
Read entire label before using. Use only as directed. Always pretest surface with cleaning solution for colorfastness prior to cleaning. Wear protective eyewear, gloves, long sleeves, and long pants while handling concentrate. Ensure work area is well-ventilated during application. Keep children and pets out of the area during application and drying.

1. For normal soiling, mix 32 ounces (1 quart) of solution with gallon of warm or hot water (1:4) into a professional sprayer. For heavy soiling, mix two quarts (64 ounces) of solution with a gallon of warm or hot water (1:2) into a professional sprayer. For application through a Hydro-Force Inline Injection Sprayer, use straight solution into sprayer bottle. Use no metering tip which results in a 1:4 mixture.

2. Apply mixed solution with sprayer evenly and liberally across surface to be cleaned. You can use a pump-up sprayer or a battery powered sprayer like the Flexi-Pro. If preferred, you can apply mixed solution with a damp mop, sponge, or other appropriate professional equipment. If using a mop for solution application and surface cleaning, change your mop water often to make sure that soil is not redeposited.

3. For best results, agitate and extract cleaning solution using warm or hot water and a rotary agitation surface cleaner such as a Hydro-Force SX-15 or SX-7. For tight spaces or especially sensitive surfaces, use the Hydro-Force Gekko Hard Surface Extraction Tool, or simply mop to rinse with clean warm or hot water.

4. When area has been rinsed thoroughly. Allow floor to dry. Accelerate drying with air mover like the Hydro-Force Air King or OmniPro OmniDry Air Mover.



## Cleaning and Degreasing Concrete Floors

Viper Peroxiblast Powder is a high performance, alkaline, heavy-duty concrete, tile and grout cleaner and degreaser that safely replaces mineral spirits and chlorinated solvent-based heavy-duty concrete degreaser products. Viper Peroxiblast Powder penetrates concrete surfaces on contact to soften, lift, and remove a wide range of oils, soils, and greases.

Read entire label before using. Use only as directed. Always pretest surface with cleaning solution for colorfastness prior to cleaning. Ensure work area is well-ventilated during application. Keep children and pets out of the area during application and drying.

1. This product is ultra-concentrated. For normal soiling, mix 2 ounces of powder with one gallon of warm or hot water into a professional sprayer. For extreme soiling, mix three to four ounces of powder with a gallon of warm or hot water into a professional sprayer. For application through a Hydro-Force Inline Injection Sprayer, mix 12 oz. of powder and fill container with water. Use 4:1 dilution.

2. Apply mixed solution with sprayer evenly and liberally across surface to be cleaned. You can use a pump-up sprayer or a battery powered sprayer like the Flexi-Pro. If preferred, you can apply mixed solution with a damp mop, sponge, or other appropriate professional equipment. If using a mop for solution application and surface cleaning, change your mop water often to make sure that soil is not redeposited.

3. Allow for 5-10 minutes of dwell time. For concrete, if stains have been deeply absorbed, allow 15 minutes of dwell time so the solution has time to reach into the concrete pores and crevices and the oxygen activated effervescent solution can dissolve the soiling and lighten discoloration.



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