



SoyCrete™

Installation Guide

Recommended Tools & Supplies

Professional Mechanical Equipment:

High Volume Low Pressure (HVLP) Sprayer (Pressure Pot System w/HVLP Gun), Airless Sprayer w/#11 Tip, Black & Decker HVLP Sprayer, Low Speed Floor Buffer, Pressure Washer, Commercial Wet/Dry Vacuum with Squeegee Attachment, Floor Fans.

Manual Applicators:

Garden-Type Pump Sprayer, 16" Floor Coating NylFoam Pad, NylFoam 6" Trim Pad, Microfiber Wet/Dry Mop, 18" Heavyweight T-Bar Floor Applicator, Floor Squeegee, Stain Pads, Sponges.

Miscellaneous Tools & Supplies:

SoyCrete 2 Oz Stain Sample Jars, Eco-Etch Pro, Soy-It Degreaser, 18" Paint Tray, Masking Tape, Painters Tape, Clean Rags. Spray Bottle for Water, Shoe Covers or Spikes, Empty Buckets, Water Supply.

Decorative Design Tools: Tape Measure, Chalk Line, Grout Line Tape, Concrete Scoring Saw, Stencils, Etc.

Concrete Basics

Concrete will vary greatly by cement mix type, aggregates, filler, hardeners, form release agents, cure & seal compounds, density, strength, and concrete finishing methods. These variables may produce inconsistencies in porosity, texture, and color even within the same slab pour. These inconsistencies also provide the unique and natural variegated look when installing semi-transparent stains. The most important steps to ensure you achieve your desired decorative stain results are to properly test for porosity, uncover potential bond breakers, and to establish actual color. Profiling and preparing the concrete surface is the most important step in decorative concrete installations. If you have a hard troweled surface that is very dense or will not exhibit fast penetration of water, you must profile the surface by opening the pores to allow sufficient penetration of the stain. The color of your concrete and the admix used, will affect the actual color. White or lighter color concrete will produce brighter colors. Dark grey or colored concrete will produce varied results depending on the desired color pigment. Field adjustments can be made with SoyCrete™ by mixing different stain colors or working with custom ratios of colorant and adjusting application methods. Porosity will also affect color. The more porous surfaces will tend to be darker than less porous surfaces. Good porosity does not necessarily mean a rough, broom or aggregate exposed finish. The finish may be smooth as glass and still have excellent porosity. The density of the finish or additives used during the curing process will have a greater impact on less than acceptable porosity.

Surface Preparation

Proper surface preparation is critical to a successful long term and beautiful installation. **Surfaces must be porous for proper penetration.** Test the surface in all areas within each pad or foundation sections for porosity by spraying a light water mist over the project area. If the water soaks in within seconds in all areas, you should have sufficient porosity and are ready to perform your stain sample test area. If your water test beads on top of the surface or penetrates very slowly, you either have a non-porous hard troweled surface or you may have oil, sealer, cure-n-seal, hardener or other substance that prohibits penetration. Pay special attention to edges of concrete slabs which tend to be denser or contain form release agents that were used to remove the forms during construction which could be a bond breaker.

If all sealers and residues have been thoroughly removed, you may open the pores of the surface by sanding, grinding, shotblasting and/or use our non-hazardous concrete etch and clean solution (Eco-Etch Pro™) for maximum penetration and desired results. If the concrete contains hardeners, such profiling methods still may not open the pores to create

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sufficient porosity. In these cases, consider using our Deco-Poz™ Micro-topping Resurfacer to create a new decorative concrete canvas.

Remember, the more penetration you allow SoyCrete™, the more durability you achieve to better withstand topical wear caused by traffic and weather. If you feel you have sufficient porosity but want maximum durability, simply use our Eco Etch Pro™ to clean and etch in one step. This will replace your degreasing process in most applications.

Degreasing: We recommend degreasing with our bio-based Soy-It™ Concentrated degreaser to remove all oils, residues, and contaminants from the surface. Many cleaners may leave a film or residues that will actual prohibit absorption. Apply Soy-It liberally at 1:1 heavy duty, 10:1 medium duty or 20:1 light duty. Power Wash clean or apply and rinse by hard bristle brush or floor machine with a black stripping pad. Use a wet/dry vac to extract the solution and allow to dry.

Stripping: We recommend our heavy duty bio-based Soy-It™ Strippers to remove paint, coating, or sealers that prohibit penetration. Apply liberally with a HD pump sprayer or by roller and allow to dwell for 5 minutes to 12 hours depending on the age, type, and thickness of coating material to be removed. Always test a small area to establish the most effective dwell time and compatibility prior to full application. For large area applications most will find it convenient to apply and allow to dwell overnight. Remove by power washer, floor scraper, or squeegee as applicable. You must Degrease area well after using strippers as they will leave an oily residue. Use a power washer or floor stripping pad and extract with a wet/dry vacuum. Repeat porosity test to ensure all residue is removed and desired porosity is achieved.

Chemical Etch & Cleaning: For chemical etching method, we recommend our non-hazardous alternative to hydrochloric, phosphoric or muriatic acid, called Eco-Etch Pro™. It will effectively open pores of most hard trowelled, non-porous concrete and will clean dirt, rust, and efflorescence in one easy step. It is a fast and safe process with a dwell time typically between 1 to 15 minutes, and then rinses clean with water. Always test a small area to establish optimum dwell time and desired porosity prior to full application. Follow all product instructions as recommended.

Overlay or Micro-Topping: Overlays or Micro Toppings are also a very popular method to repair or create a consistent and basically new concrete canvas in which to stain. This solution is best performed by an experienced installer or an experienced DIY installer familiar with trowel applications. Deco-Poz™ is a primerless application and will bond tenaciously to most substrate surfaces including tile, laminates, wood, coatings, adhesives, etc. This new concrete canvas eliminates the guesswork and will create a brand new decorative concrete canvas.

If applying to new unsealed porous concrete surface, it is recommended to allow for proper curing which is typically 21-30 days. (consult with your concrete contractor). Always test a small area prior to full installation. Approximate spread rate of SoyCrete is between 400-600 square foot per gallon depending on the application method and porosity of the substrate. Ensure that the surface temperature is above 50°F and below 100°F for best drying and curing conditions.

Application

After you have performed your initial porosity test and surface preparation steps, **test a small area for color and porosity observation using our SoyCrete™ 2 ounce sample jar prior to full project installation.** This small test will save you time and effort if you find that color modification or additional porosity is required. Apply your test stain, by using a sponge or stain trim pad and rub into the surface until all marks and surface material is clearly spread within the concrete surface. Do not allow puddling or topical stain to remain on the surface. Avoid oversaturation to prevent leaving a topical film. Allow the stain to dry for about 30 minutes. Use a small fan to help accelerate the dry time for better visual evaluation.

After the dry time, wipe the stain with a lint free cloth or your fingers. If the stain comes up easily and exposes the concrete, there was no penetration, repeat or follow surface preparation procedures. If very little or no stain residue came up, you may proceed with your application. If you are uncertain as to what you are witnessing, call Eco Safety Products for assistance.

Beginning your stain application: Mask areas not intended to be stained. If applying advanced design patterns or stenciling, measure and mark pattern design placement with applicable tape or chalk lines. Avoid puddling or the temptation to hide the surface like paint. Regardless of the amount of material applied or application method used, be sure you do not leave topical residue or film. You must work the product into the surface by following our application method instructions.

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If you want to create multi-tone effects, apply your base color, and then apply accent colors to blend as desirable. Applying your accent colors while your base coat is still wet will create more blends, while applying accent colors to a dry base coat will provide more noticeable color separation. When dealing with multiple colors, always be aware of the porosity limitations.

If you are using our Tint Base with colorant packs, each colorant pack is premeasured for each one gallon of Tint Base. To achieve a lighter color, pour less than the full contents into the Tint Base. To achieve a darker color, you may use up to two colorant packs per each color. You may also create your own custom color by blending different colorant packs, but never exceeding 7% colorant to Tint Base.

Pump Sprayer Application: Use a high quality pump sprayer. Inspect all seals and nozzles prior to use. Spray SoyCrete™ in manageable sections in a uniform pattern and avoid excess puddling. Depending on the texture and porosity level of the surface, use the appropriate applicator to work all topical material into the surface. Use a NylFoam pad, microfiber mop, soft/medium bristle brush, or floor buffer with white pad to work all topical material into the substrate. Temperature and working conditions will create variables to be considered. Lightly spray mist with water to rework the stain into the substrate if has begun to dry on the surface.

HVLP Sprayer Application: Set to a fine spray. If using a PSI regulated compressor, find the optimum pressure between 20-50 psi for a fine mist spray. If using a Black & Decker or similar electric portable airless unit, the stain tip will generally produce a favorable spray setting. Apply in a thin even pattern and avoid puddling. If puddling or spotting occurs, rub the stain puddles into the surface using a pad applicator. You may also use a Floor Buffer with a light to medium pad as a design tool and to enhance distribution or manipulation of the stain. To help loosen the applied stain, simply spray lightly with water as you move the floor machine over the area. This technique will also create a reverse pull of color for more enhance variations.

Airless Paint Sprayer: Use a #11 fine tip for optimum atomization of the spray and to help avoid oversaturation. Apply in a thin even pattern and avoid puddling. If puddling or spotting occurs, rub the stain puddles into the surface using a pad applicator. You may also use a Floor Buffer with a light to medium pad as a design tool and to enhance distribution or manipulation of the stain. To help loosen the applied stain, simply spray lightly with water as you move the floor machine over the area. This technique will also create a reverse pull of color for more enhance variations.

Wet/Dry Microfiber Mop/NylFoam Pad: Pour SoyCrete™ in a large 18" paint tray and saturate pad evenly. You may also pour small amounts of SoyCrete™ on the surface to create a pool of material when working in small sections. Saturate the pad in the pool of material, and then begin mopping back and forth and in circular motions in 3'-4' passes to work all material into the surface eliminating all lap marks. Spread the material as far as it will go. You are almost working it in dry. When working in larger areas, simply pour SoyCrete™ on the surface to create your wet edge pass, saturate the pad evenly with the material, and then begin mopping to work all material into the surface.

18" Heavyweight T-Bar/Floor Squeegee: This method is useful for large area, smooth surface applications, whereby the applicator is used to disperse material quickly over a large area. Pour SoyCrete™ on the surface to create your wet edge pass. Cut in your beginning edge and begin dispersing the material along your designated pass. Since these methods are to disperse a thin coat of material quickly, it will naturally leave irregular and streaky application of material. Follow the application with a floor buffer using a light to medium coarse pad to eliminate topical film and to create enhanced decorative effects. This step should be performed before the material begins to dry. You may spray lightly with water to work the material if necessary.

Soft Bristle Push Brush: This method may be used for rough or broom finished surfaces. Keep in mind that such surfaces often tend to be more porous as well and colors may be darker than desired. Adjust your colors accordingly prior to application. Pour SoyCrete™ into a bucket or large paint tray. Saturate brush then begin brushing SoyCrete™ into the surface.

There are literally unlimited application tools and methods based upon the experience and artistic level of the installer. Regardless of the method used, the main objective is to never over saturate the substrate or to leave a topical film of SoyCrete™.

Drying Time: SoyCrete™ will generally dry to the touch within 1 hour depending on environmental conditions. Colder climates and high humidity will prolong drying times. Hot or sunny outdoor exposure will accelerate drying. When applying additional coats or color, be sure to wear spikes, socks or protective shoe covers to avoid marks or contamination of the stain coat. Apply accent colors as desired. SoyCrete™ requires approximately 4-6 hours drying prior to applying Acry-Soy™ Clear Finish Sealer. Premature application of the sealer may loosen SoyCrete™ that has not fully penetrated into the surface. You may expedite the drying time and also effectively even the SoyCrete™ installation by buffing the stain application. Buff with a light to medium coarse (white, tan, blue, red or brown pad) after the stain

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application. Test a small area prior to full buffing to ensure SoyCrete™ has penetrated sufficiently. This buffing method will enhance the penetration and drying time significantly. Acri-Soy™ Sealer application may be applied as soon as 2 hours after the buffing process. If your installation has multiple colors or design patterns, be extra cautious if using the buffing process as premature buffing of multiple topcoat colors may tend to bleed colors together. For such detailed design installations, we generally would recommend the natural 6- hour drying process.

Acri-Soy™ Sealer Application: Apply after the recommended dry time of SoyCrete™. The sealer application is required to provide a lock-in protective barrier that protects your concrete surface and provides a lock-in barrier to help resist moisture, staining, dusting and efflorescence. Most applications will require only a single coat. It is recommended to install a minimum of 2 coats for automotive and high traffic areas for maximum protection if porosity allows. Allow approximately 1 hour intercoat dry time between sealer coats. Do not oversaturate or apply to a non absorptive substrate. All sealer material must absorb within the substrate without topical film. Buff in excess if required.

Specialty Finishes: You may choose our EcoFlorZ™ Decorative Floor Finish or Eco-Tuff™ High Traffic Clear Coat where applicable. EcoFlorZ™ is an interior low to high gloss durable floor finish that is applied over Acri-Soy™ Sealer. Eco-Tuff™ Clear Coat is our high performance high traffic system for the most demanding surface protection requirements. Consult with your dealer for the best recommendation for your projects.

Please note that as with any coating system, premature installation of finish coats may cause undesirable emulsion with the sub-coatings and possibly cause premature system failure. Read all installation instructions for your desired specialty finish coating and always test a small area prior to full application.

Basic Troubleshooting

Lap Marks or Over Saturation of Stain- If you experience undesirable marks or topical stain accumulation that has begun to dry, simply spray water over the area and buff the area with a stripping pad to spread the stain as desired. This must be done immediately after application. If you have waited too long, you should use Soy-It™ Degreaser or even Soy-It™ Strippers to breakdown the topical residue before it has a chance to cure. Once cured, you should call Eco Safety Products for technical assistance as more complicated procedures will be required. Be aware that outdoor installations during hot weather and direct sunlight will accelerate dry time and workability of the stain.

Tackiness of SoyCrete™- If SoyCrete™ remains tacky after 6 or more hours; it is a result of leaving a topical residue. This is caused by failure to remove the residue during application, or it was simply applied to a non-porous substrate. This is the single most important reason to test prior to application and to use only recommended application tools and methods. If there is no place for the stain to go, it will simply stay on the top surface and try to cure. Option 1: If there is porosity in the concrete, spray water on the surface and buff out the topical stain with light to coarse pad as applicable. Always start with the least abrasive pad first. If tackiness is gone, and the stain does not come up when wiping with your fingers, you may apply Acri-Soy™ as usual. Option 2: If the tackiness is not resolved and the stain comes up, please call Eco Safety Products for technical assistance.

White Residue on Surface- We recommend shutting off any irrigation that may effect an outdoor installation during the curing period about 5-7 days. For unexpected rainfall, SoyCrete™ has an inherent water repellency chemistry to help withstand unexpected rainfall or limited standing water during installation as long as it was installed properly and allowed to dry for at least 12 hours. Avoid installation of Acri-Soy™ during rainy forecasts for outdoor installations. If Acri-Soy™ is subjected to standing water before the full chemical cure, it is possible to witness a white milky substance. If this occurs, simply allow it to dry and reabsorb into the surface naturally. Wiping or cleaning this substance will remove the uncured Acri-Soy™. Should this happen, simply re-apply Acri-Soy™ to the affected area. Excessive application of Acri-Soy™ may result in the need to remove all topical material with a stripping pad.

Stain Care:

Avoid using chemicals to clean the surface during the curing period and up to 14 days. Surfaces may be subjected to normal foot traffic within 12-24 hours depending on environmental conditions. Do not use or apply tape to a decorative stained substrate as the adhesives may emulsify and lift the coating system during its cure period. Use caution and avoid dragging equipment, furniture, etc. over the decorative floor. Automotive traffic should allow a minimum of 5 to 7 days for adequate cure. Pool environments should allow a minimum of 7-14 days before exposure to pool chemicals and standing pool water.

Standard maintenance cleaning requires only the use of water and/or neutral floor cleaner. We highly recommend the use of microfiber wet/dry mops for a chemical free interior maintenance of your eco-friendly decorative floor. If you apply a specialty finish coat, follow all manufacturer floor finish care instructions. It is highly recommended to inspect the sealer for effectiveness every 2-3 years or as needed to extend the life and beauty of your decorative stain. Proper care and surface protection will provide years of decorative style and beauty.

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Important: The performance of the product is dependent upon its correct application onto surfaces for which it is intended strictly in accordance with instruction onto correctly prepared surfaces which shall remain sound, stable and free of cracking or movement. We always recommend testing a small inconspicuous area for compatibility prior to full application. Instruction application deviation may diminish or negate the performance of the product. Under no circumstances will the company be liable for loss, consequential or otherwise arising from the use of the product. Should this product be proved defective our liability shall be to the replacement of the products. We reserve the right to amend specification and application techniques without prior notice.