



Acid Stain

Grind & Seal

Description

The Acid Stain Grind & Seal System is a process of grinding the concrete and applying Westcoat's acid based stain and sealer. The Acid Stain is made from an acid solution, wetting agents and metallic ions. When it is placed on concrete, it chemically combines the metallic ions with particles in the concrete to form oxides. The stain is then sealed for protection.

Uses

The Acid Stain Grind & Seal System is designed to create a mottled effect on existing concrete floors with high to low gloss sealer options. This system is used primarily on interior projects including showrooms, restaurants, cafes, breweries, wineries, offices and hotels. Recommended for use on interior floors where maximum durability is necessary. The standard sealer in this system is SC-65G, which is suitable for medium duty traffic areas. If a light to medium duty sealer is acceptable, EC-11 may be used in lieu of SC-65G. Alternative sealer options EC-32 and SC-65SG are suitable for medium duty traffic areas. For medium to heavy duty traffic areas, EC-95G or EC-95F may be used in lieu of SC-65G.

System Overview



System Data

Coverages Acid Stain Sealer

200-400 ft² 300-500 ft² per gallon per gallon

Shelf Life

Components <u>SC-30 Acid Stain</u> 3 years

SC-65G WB Gloss Polyurethane Sealer 1 year

Advantages

Durable • Mottled Finish • Unique Colors • Penetrating • Long Lasting • Low or High Gloss • Chemical Resistant • UV Resistant

Inspection

Concrete must be clean, dry and free of grease, paint, oil, dust, curing agents, laitance or any foreign material that will prevent proper adhesion. The concrete should be at least 2,500 PSI, porous and able to absorb water. A minimum of 28 days curing time is required on all concrete. Prior to starting work, test existing concrete slab for efflorescence, moisture and hydrostatic pressure.







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Concrete Patch

Before or after grinding, the concrete can be patched with TC-29 Concrete Patch. In a clean, dry bucket add four parts TC-29 Concrete Patch to one and a half parts water (by Volume) or a ten pound bag to 40-50 ounces of water, depending on the desired consistency. Mix thoroughly for 1-2 minutes with a low rpm drill. Allow 2-4 hours at 72 degrees before grinding. Cracks, spalls, holes and pits should be overfilled and allowed to dry properly. This remedial approach to patch cracks is not guaranteed and it should be noted that when the substrate moves, the crack may reappear. Repaired areas will be visible.

Moisture

All concrete should be tested for moisture before applying a seamless coating. If moisture emissions exceed 5 lbs/1000 square feet (ASTM F1869) or if the relative humidity (RH) exceeds 75% (ASTM F2170), contact the manufacturer before application.

Concrete Repair

For concrete that needs repairs beyond just dormant cracks, TC-23 Mortar Mix can be used. TC-23 is designed to be used as a general concrete repair mix for horizontal and vertical applications and can be used as a patching/underlayment material under most Westcoat systems. Please refer to the TC-23 Mortar Mix Product Specification Sheet for details.

Preparation

Prepare surface by diamond grinding with 60-80 grit tools to achieve a clean, uniform, porous surface that will allow the Acid Stain to soak in and react with the cement in the concrete. Sweep and vacuum surface entirely. Any dust or contaminates will deter adhesion.

Applying Product

Using an acid resistant garden sprayer, spray the SC-30 Acid Stain onto the surface evenly. Immediately after spraying, brush or broom the material into the concrete in a circular fashion. The surface may be pre-dampened to increase the movement of the acid.

SC-30 can be thinned with up to 5 parts of water for staining concrete. Always do a sample before beginning the job. Thinning will effect the depth of color. The coverage will vary depending on the surface. Apply as thin as possible at 200-400 square feet per gallon on most surfaces, depending on strength, porosity of the concrete and desired color.

Whether brushing or brooming, do so consistently, as it will effect how the acid reacts. As you brush the acid, it will foam and react with the concrete. Varying degrees of foaming will occur and some colors may not show right away. Apply fresh acid ahead of the brush. The foamed material should not be applied to an untreated area, as it will not chemically stain the surface properly. Additional applications may be done to darken the surface further after the first application has dried. (You may also work 2 to 3 colors into the surface to achieve a unique look).

Once the surface has reacted and dried (usually 2-6 hours), you must scrub and rinse off all residue completely. This could be considered the most difficult part of the application. You can take advantage of this time to confirm the color, as the water will simulate the "wet look" of most sealers. Additional stain may be applied at this point, but you need to rinse again. Make sure to scrub, mop and completely rinse the surface 2-3 times and wet vacuum until dry. Be sure to safely and properly dispose of the residue.

Failure to completely remove all residue prior to sealing the surface may cause appearance defects, reduced durability and delamination of the sealer.







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Sealer

Pre-mix each component of SC-65G separately. In a clean bucket, mix 3 parts A with 1 part B (by volume) of SC-65G Water-Based Gloss Polyurethane Sealer. Mix thoroughly with a low speed (200-300 rpm) drill motor for 2-3 minutes. Make sure to scrape the sides and bottom of the container during mixing. Immediately after mixing, apply the SC-65G onto the substrate at a rate of 300-500 square feet per gallon. SC-65G can be sprayed or rolled. For best results, spray SC-65G neat, with an airless sprayer. SC-65G may be applied with a squeegee and back rolled with a ½ to ½ inch, high-quality, non-shedding roller cover, being sure to maintain a wet edge. Alternatively, SC-65G can be applied with a dip and roll method, as desired.

For added slip resistance, add up to 1 quart of CA-30 Safe Grip per 3 gallons of sealer. #30 silica sand may be broadcast when extra traction is needed. Quantities may vary.

Sealer Dry Time

Allow 12-18 hours at 70 degrees between coats and 24 hours before light foot traffic. Normal foot traffic may be permitted after 48 hours. For vehicular traffic, allow a minimum of 72 hours. See Individual Product Specification Sheet on each sealer for accurate dry times.

Clean Up

Uncured material can be removed with soap and warm water. If cured, material can only be removed mechanically.

Optional Materials

Concrete Patch

• TC-29 Concrete Patch can be used to fill cracks, spalls, holes and pits.

Cement Options

• TC-23 Mortar Mix may be used as a general concrete repair mix for horizontal and vertical applications and can be used as a patching/underlayment material.

Sealer Options

- SC-65SG WB Semi-Gloss Polyurethane Sealer can be used for a lower gloss, low odor, solvent free, chemical, UV and mar resistant finish.
- EC-11 WB Epoxy can be used in lieu of SC-65G when a lower cost, water-based epoxy is desired.
- EC-32 Clear Epoxy Topcoat can be used in lieu of SC-65G when a 100% solids epoxy topcoat is required.
- EC-95G Gloss Polyurethane Topcoat can be used in lieu of SC-65G when a solvent-based polyurethane is required.
- EC-95F Flat Polyurethane Topcoat can be used over EC-95G Gloss when a low gloss, solvent-based polyurethane topcoat is required.

Skid Resistance

- CA-29 Mini Safe Grip, CA-30 Small Safe Grip or CA-31 Large Safe Grip can be added to the final coat
 of sealer for added skid resistance.
- CA-33 Aluminum Oxide can be used for skid resistance in heavy traffic areas.
- * Please read Product Specification Sheets on these products prior to use.







SYSTEM SPECIFICATION



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Maintenance

Interior Floors can be dust mopped daily or mopped using a neutral pH cleaner. For more information on floor care & maintenance, please refer to the General Maintenance sheet.

The Acid Stain System should be inspected for wear every 2 to 4 years. The system should be resealed with the appropriate Westcoat clear sealer every 3 to 5 years depending upon traffic and UV exposure. Contact the original Installer of Westcoat for complete re-coating instructions.

Health Precautions

Inhalation of vapor or mist can cause headache, nausea, irritation of nose, throat and lungs. Prolonged or repeated skin contact can cause slight skin irritation.

SC-30 contains hydrochloric acid. Wear goggles and rubber gloves when handling. Mask out all surrounding surfaces and be sure that area is well ventilated. Store unused material in plastic containers only.

Limitations

- This system is designed for professional use only.
- Read Product Specification Sheets for every product you will be using before beginning the project.
- Do not apply at temperatures below 50°F or above 90°F.
- Be sure to paper off any areas that you do not want stained.
- Will not hide imperfections or stains in concrete.
- Product will stain concrete and can produce a mottled look. Colors and effects will vary.
- Acid Stain will fade with prolonged exposure to sunlight.
- Older concrete may not accept stain.
- Sealers will make the surface slippery, please be aware of the existing texture of the concrete and how the sealer will affect the look and feel.
- Approval and verification of proposed colors, textures and slip resistance is recommended.
- Do not allow Westcoat products to freeze.

Slip Precaution

Westcoat Specialty Coatings Systems highly recommends the use of a slip-resistant additive to all coatings/systems that may be exposed to wet, oily, greasy or slippery conditions. It is the end user's responsibility to provide a flooring system that meets current safety standards. Westcoat and its distributors will not be responsible for injury incurred during a slip and fall incident. For the current coefficient of friction requirements, please consult your local building codes.

