



## Technical Report - STARDEK ACID STAINS

### PRODUCT DESCRIPTION

STARDEK ACID STAIN is a blend of water and mineral compounds that react with substances already present in the concrete, polymer overlay, or self-leveler, “etching” the color into it. This reaction creates permanent insoluble color effects that resemble marble or natural stone. Variations and inconsistent color are expected, as this chemical reaction will react different on every application or surface. Make sure you thoroughly test the surface before application to ensure you are satisfied with the results.

We offer eight standard colors, but an unlimited array of shades may be created by incorporating other STARDEK systems.

**STARDEK ACID STAIN** does not contain Hydrochloric Acid, has no acid fumes and may be shipped as non-hazardous material. This revolutionary formulation makes it cheaper to ship, more user friendly and safer to apply than comparable products from the rest of the industry.

### STARDEK ACID STAIN APPLICATION & SPECIFICATIONS.

**EXTERIOR SURFACES:** All curing agents, sealers, coatings, oil, grease, waxes or water repellants must be removed prior to application of Acid Stain.

**CLEANING:** Exterior concrete should be cleaned and degreased with concrete cleaner then pressure washed. After cleaning, surface should be tested for water absorption, wet the surface and observe if water beads on any areas, water beading indicates there is still sealer, oil or other contaminant on the surface, re-clean and test again. Some exterior surfaces that are worn out, spalled, or oil soaked, may not react with the stain. **Always test area for color and reaction prior to application.** Green color stains, are not recommended for exteriors, or concrete that has cured for less than 3 months. Never acid etch concrete before applying stain.

#### INTERIOR SURFACES:

All curing agents, sealer, paint, wax, carpet glues, oil and water repellants must be removed before applying stain. **CLEANING:** Interior floors may be cleaned by either mechanical or chemical means stripping the floor with floor cleaner, a floor buffer and a black pad is very effective way to prepare floors for acid staining. It opens up the concrete pores, provides deep cleaning and leaves the surface ready to be stained.

After cleaning, thoroughly rinse surface with clean water until all the residue is removed.

**Always test area for color and reaction prior to application.** Never acid etch concrete before applying stain.

**NEW CONCRETE:** New concrete must be cured for at least fourteen days; No **liquid curing agents should be used in surfaces to be acid stained.**

#### NOTES:

- Acid Stain works by chemical reaction; some concrete may not react with it due to the presence of water repellants, curing compounds or other unknown contaminants invisible to the eye.
- Acid Stain needs time to react, some colors show immediately, while others take as much as an hour or more to react. If the stain is applied in hot conditions, or exterior floors, it may dry too quickly, thus, not allowing the chemical reaction to occur. In this case it is recommended to apply the stain early in the morning or late in the evening, or at night.
- Residue: Acid Stain leaves a residue, in many cases after the stain dries there is a whitish film on the surface, giving the impression the stain did not react or did not produce the desired color. Scrub an area with clean water and see if there is any reaction, most of the time the color is right there under this powdery film.
- **TEST! TEST! TEST!**

**COVERAGE:** Two coats are required, apply at full strength, and if thinning is needed or desired use only clean water. The coverage rate should be 150 to 200 square feet per gallon.

**APPLICATION:** All surfaces must be dry, prepared and tested. For best results apply stain at full strength. Shake well and pour into acid resistant sprayer, keep constant pressure and hold tip of sprayer from eight to twelve inches from concrete surface and spray one coat evenly into slab, after the stain dries apply a second coat, this time while one person sprays, another person should scrub with a brush to work stain into concrete. More coats to deepen the color may be applied the same way. Let stand for at least four

hours between coats so the stain achieves its maximum coloration, then neutralize and seal.

#### **ARCHITECTURAL FINISHES:**

**SAW CUTTING:** After the concrete has been thoroughly prepared, you can saw cut your design into the concrete by using a hand held saw with a diamond blade and cutting to a depth of about a quarter inch. Mask areas not to be stained and areas to be stained with a different color, apply by using a small acid resistant brush for the small detail and a larger brush or broom for large areas. Spray stain onto concrete and work with the brush in a circular motion being careful not to splash into adjacent areas, work one color at a time, allow to dry for at least four hours or until the next day and apply second coat the same way. After sealing you can leave the joints as is or some people prefer to grout them for a more striking effect.

**TEMPLATE SANDBLAST:** You can add a logo or lettering to your floor. Have a stencil made with logo or text on a sandblast resistant paper or plastic with a sticky back. After floor is stained and sealed, apply stencil over desired area, light sandblast until the sealer and stain is removed, then apply different color stain, neutralize and seal with two coats.

**NEUTRALIZATION:** After STARDEK ACID STAIN has dried for twenty-four hours, or overnight, the surface must then be scrubbed and cleaned with water and baking soda or an ammonia-water solution ( 1 part ammonia to 10 parts water ). Scrub entire surface and then rinse well with clean water. Be sure to protect adjacent areas from run-off. Remove all residues and allow drying before sealing.

**SEALING: STARDEK ACID STAIN** may be sealed with the following sealers, please follow individual product directions.

**STARDEK II CLEAR SEALER:** Solvent borne acrylic sealer, 30% solids. Recommended for exterior and interior application. Read safety precautions for interior application. It provides medium hardness and good gloss.

**STARDEK'S DUROTHANE:** A high solids chemical resistant two-component saturated polyester aliphatic urethane coating having exceptional resistance to most chemicals and

excellent anti-soil properties. Displays excellent gloss retention on extended exterior exposures.

**MAINTENANCE:** Exterior floors treated with STARDEK Acid Stain and sealed need only be washed with a warm soapy water solution. Interior surfaces should be maintained with a premium grade floor finish for an enhanced, long lasting and easy to maintain unique look.

**CAUTION:** STARDEK Acid Stain should be handled with care. For more information please see the STARDEK Acid Stain MSDS.

**LIMITATIONS:** STARDEK Acid Stain will not hide cracks, blemishes and or other construction errors. The color produced by STARDEK Acid Stain will vary from surface to surface, and it is dependant on, concrete mix, water/cement ratio, weather, application method, experience of applicator, number of coats applied and general condition of the concrete itself, such as porosity, smoothness and cleanliness. There are some concrete surfaces that will not accept Acid Stains, always test surface prior to application. These instructions are only a general guideline to use STARDEK stain and do not replace field experience or established industry standards. Test before use.

**WARNING: READ COMPLETE MATERIAL SAFETY DATA SHEET BEFORE APPLICATION AND USE.** This is an acidic liquid. May cause skin, eye or respiratory irritation, may be harmful if swallowed. Keep away from children. Do not permit runoff during application. Do not get into eyes, skin or clothes; wear protective clothing, goggles and rubber gloves during handling and application. Use adequate ventilation. Store containers upright in a well ventilated area and **KEEP AWAY FROM CHILDREN.**

**PACKAGING:** 1 Gallon (3.8L) jugs

**WARRANTY:** STARDEK warrants this product to be free from manufacturing defect. Since no control is exerted over its application and use, STARDEK makes no warranty, either expressed or implied, concerning this product. Seller and manufacturer's obligation shall be limited to replacing that portion of the product proven to be defective. The end user shall determine product's suitability and assume all risks and liability.