

# Acid Stain Technical Data



**Product Descriptions & Uses:** Patina Stains are designed to enhance new and existing concrete surfaces by adding decorative and unique shades of color. The variegated and translucent color effects are a result of the unique formulation of blended acid metallic salts in water - based solutions that are slightly acidic. This provides a variation of earth tone colors similar to the oxidation of a copper roof or the patina of a bronze sculpture.

The stains lightly etch and penetrate new or existing concrete and chemically form permanent insoluble colored precipitates that remain in the concrete as part of the surface pores. Patina Stains can also be used on various other cement based materials including, but not limited to, self leveling and other topping systems, gunite, cement plaster, stucco, and shotcrete. They can also be used on other products such as natural stone, marble, limestone, etc.

Patina Stained floors are superior in durability and abrasion resistance to that of concrete surfaces coated with acrylic stains or other types of paint which can wear or delaminate. Because of the chemical reaction with concrete, Patina Stains become part of the surface and will not chip, crack, peel, fade or wear only as to the wear of the concrete. This variegated finish includes a wide drift in each of the colors that is not considered a defect, but rather a reason this method of concrete coloration is chosen. There are eight standard colors that can give you numerous appearance variations by applying over one another.

**Limitations:** Patina Stains are not to be used in order to hide or cover any blemishes or errors in construction. In certain cases, the stains may accent finishing marks or blemishes in concrete in an unpredictable manner.

All the Patina Stains available require various times of activation in order to achieve optimal performance. Because of this, when stains are first applied they appear different than their end result. Use the chart below to reference the color, required time to leave on surface for optimal performance as well as color it will first appear as when applied.

Each individual concrete substrate will create different effects that may significantly appear different than what is shown on the color chart. Some of the many factors that can affect the appearance include, but are not limited to: finishing technique, mix designs, curing practices, age, condition of concrete, porosity of concrete and base color of surface.

Being transparent as the Patina Stains are brings an element of uncertainty and unpredictability in its final appearance, which can include uneven or molten effects. This is

however not considered to be a defect, but the reason this method of coloration is chosen. In particular, our blue and green based stains react to the presence of moisture and will create black, spotty effect after activation, so do not add to a wet or damp surface. It is always strongly recommended to sample the color on the same surface to be stained in an area that will not be noticed.

**Materials and Composition:** Patina Stains are composed of a unique formulation of blended metallic salts, in an acidic, water based solution. These metallic salts penetrate and react with the chemical substance in concrete to deposit the colors into the pores of the concrete. Each color is composed of a complex proprietary formulation containing no pigments or resins. This formulation creates a more effective chemical reaction and deeper color penetration.

**Application and Color effects:** There are various designs and effects achievable using the Patina Stain System which is why a test sample is practically a necessity. When preparing the surface to be stained, make sure not to perform an acid wash to clean the surface, as this will remove the free lime needed for its reaction in the concrete. Experienced applicators may want to sand the surface prior to staining using a floor polisher with a maximum of 50-100-grit mesh or paper. The function this will serve is to open the pores of the surface that you do not desire. Surface must then be cleaned thoroughly and completely dry before applying stain.

The application of the stain will vary according to size, design and desired effect. For larger areas consisting of one uniform color, we recommend a plastic pump sprayer (no brass or metal nozzles, as this will corrode). Backpack sprayers with a cone nozzle for best control work well. Patina Stains can also be applied commonly using a brush in order to work the stain into the concrete. Other products commonly used would include spray bottles, sponges, lambs-wool, rollers and various materials that can give you various designs.

Patina Stains are typically applied in 2 coats, while working the color into the surface with a stiff nylon bristle brush in circular motions, unless you are looking for a speckled appearance. When you first apply the stain to the surface you should notice a light "fizzing" reaction with the concrete. This is the metallic salts and acid reacting with the free lime of the concrete and is a sign that the surface is accepting the stain. Do not rinse surface between coats, but allow each color to remain on surface for the allocated amount of time referred above in order to achieve optimal performance. After the final coat of your stain has been applied and completely dried for a minimum of 4 hours, you need to remove the white salty residue by hosing the surface down

and lightly scrubbing the surface to neutralize. You can also use a mild detergent to wash area, but be sure to wash all soap film before letting dry. After surface is completely dry with no standing water or moisture, the surface can then be sealed to protect from any harmful elements.

**Sizes:** Patina Stains are available in 4oz Sample Kits, One Quart (.945 liters), one gallon (3.78 liters) and five gallon (18.9 liters) containers. Case packs of 12 Quarts and 4- one gallon containers are also available.

**Coverage:** Coverage will vary widely depending on the porosity, texture of surface, application technique, age of concrete, number of applications and various other factors. A typical gallon should give you a cover approximately 200 - 400 square feet per gallon. (18.58 to 38.16 square meters)

**Shelf Life:** The typical shelf life of our Patina Stain is one year from date of purchase. Containers should always be stored out of direct sunlight, tightly closed and upright. Always rotate your inventory when storing.

**Warranty:** Since no control is exercised over the products use, Concrete Depot, LLC warrants only that our products are of consistent quality within manufacturing tolerances. No other oral or written representation or statement of any kind, express or implied, now or hereafter made is authorized or warranted. The sellers and manufactures obligations under this warranty shall be limited to refunding the purchase price of that portion of the material proven defective. Seller and/or manufacturer will not be liable for special, incidental or consequential damages, including for delays or lost profits. Communication of this warranty and its limitations to end-users is not the responsibility of Concrete Depot, LLC Inc. but should be communicated by those in direct contact with the end user. Any claim regarding product defect must be received in writing three months from the date of manufacture. No claim will be considered without such written notice or after the specified time interval.

**Cautions:** DANGER! CORROSIVE! CAUSES SEVERE EYE AND SKIN IRRITATION AND POSSIBLE BLINDNESS! CAUSES EYE AND SKIN BURNS! MAY BE FATAL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN! PROLONGED OR REPEATED BREATHING MIGHT CAUSE ULCERATION OR PERFORATION OF NASAL MEMBRANES. EXPOSURE TO BROKEN SKIN MAY RESULT IN ULCERS. CANCER HAZARD DEPENDS ON THE LEVEL OF EXPOSURE AND DURATION. KEEP OUT OF REACH OF CHILDREN! FOR PROFESSIONAL USE ONLY! WEAR RESPIRATOR, PROTECTIVE CLOTHING, GOGGLES AND GLOVES.