

FLORIC POLYTECH

Acid Stain Technical Data Sheet

1.) PRODUCT DESCRIPTION

A) Composition

Floric Polytech Chroma-Stain is a single component coloring solution of acidic metallic ion particles (acid stain), which when placed on the cementitious surface chemically reacts the metallic ions with the particles in the cement (free alkali) to form oxides. These oxides become a permanent part of the substrate and will not crack or peel. The resulting effect creates a colored translucent, variegated and some times marbled effect. For example, the formation of an iron oxide will produce a reddish brown mottled rust color. Considerable variations in color and tone normally result from the use of Chroma-Stain acid, and many special color effects may be achieved using different application techniques. Acid stains may give you a unique look and visual character that cannot be achieved using conventional polymer or pigment type stains, this is due to the acid reacting individually with each substrate depending on its cement content, age, porosity and the manner in which hydration took place. These variables are the reason for its inherent beauty.

B) Typical Uses

Floric Polytech Chroma-Stain may be used in a wide range of environments interior and exterior on almost any cementitious surface, whether it be gray or color harden concrete, stamped or textured concrete, micro-toppings or overlays. It can be used as an entire surface colorant or just as an accent border or detail. It may be used on both new and existing substrates.

Chroma Stain is typically used as flooring in restaurants and food service areas, bars, hotels and casino's, retail stores and malls, art studios, and movie theaters, museums, pool decks and walk ways, automobile showrooms, residential flooring and anywhere architectural concrete is desired. Chroma-Stain may also be used as a means to color poured in place concrete smooth or with form linear, tilt up wall, stone face plaster, GFRC and Faux rock. Some projects are application specific, so be assured to do a mock up first prior to starting any project.

The stain may not be completely effective if the existing concrete is worn, old, previously sealed or has been washed with acid. In some cases, if a reaction cannot be achieved, the substrate may need to be resurfaced with a cementitious topping. The benefit to resurfacing is to provide a virgin canvas without the effect of patches, repairs, existing stains, mastics, glues, oils, etc. In some cases you may need to cover an existing old partial terrazzo or exposed aggregate floor.

What about uniform color? Because concrete is not uniform, the reaction is not uniform, therefore the color is not uniform. Some areas are darker and lighter than others. If you were to view this product as natural flagstone or marble, you have the idea, varying ranges of color tones with the occasional imperfection. The use of a cementitious topping whose hydration has been engineered, with installation and curing properly controlled, may help narrow some of these variables.

C) Advantages - Limitations

Advantages

1. The Penetrative reaction of the stain protects and preserves the effect against wear and exposure when sealed, the stain is not on top of the concrete surface, but permanently in the concrete.
2. Depending on your application technique, multiple colors can be used for more interesting images.
3. Complies with all applicable air quality management regulations (contains no solvents or pigments).
4. Stains allow you the choice of intense or subdued color, offering new areas of profit and value.
5. Most colors may be used interior and exterior in a wide range of environments.
6. Conforms to ADA requirements for coefficient of friction (when sealed appropriately).
7. Compared to conventional flooring, chemical stained concrete and toppings offer increasing saving capabilities for project value engineering and reduced life expected maintenance cost.

Limitations

1. If a uniform monolithic color is desired, acid stain is not recommended.
2. Dried residue is slightly acidic and care should be taken with waste management and proper neutralization.
3. Will not hide moving cracks. However adds to their character.
4. The stain colors atomic blue, palm green and aged bronze should only be used in interior applications, as they may continue to react with water and darken or blacken when exposed to excessive moisture. When these colors are used, the sub-grade must be well-drained and not subject to high moisture vapor emissions. The stained concrete must be protected from all sources of excessive moisture. Consult a Floric Polytech Technical Sales representative for more information.

2.) PHYSICAL CHARACTERISTICS AND TECHNICAL DATA

A) Colors Available

FS-420	Rustic Brown
FS-408	Terracotta Clay
FS-320	Toasted Almond
FS-355	Aged Bronze
FS-480	English Leather
FS-385	Palm Green
FS-570	Atomic Blue
FS-800	Black

Note: Liquid color in container does not reflect actual stain final color.

B) Coverage Rates

200-400 sq ft per US liquid Gallon @ full strength
Or may be diluted up to 20-1 for lighter colors, which will yield greater coverages.

C) Hardness & Impact Resistance

It is a penetrative product, so its hardness and impact resistance is reliant on the concrete or topping it is applied over.

D) Thermal Shock

(ASTM D-1211) Good

E) Sheen

It is available in Gloss, Satin, Matte or natural concrete sheen. Sheen is dependent on the type of sealer used over the stain.

F) Installation

Please review Floric Polytech Technical application specification for full installation procedures, however prior to use or handling material, thoroughly read all safety precautions and material safety data sheets.

4.) PRODUCT AVAILABILITY

East and west coast distribution coordination

Contact: Floric Polytech, Inc.

PH# (909) 483-1870

Fax# (909) 483-1869

Consult Floric Polytech for specification assistance, detailing etc. This consultation is highly recommended.

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5.) SPECIFICATION AND TECHNICAL ASSISTANCE

Floric Polytech, Inc.; Rancho Cucamonga, CA 91730

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