

# CONCRETE STAIN & SUPPLY, LLC

## Technical Data Sheet (TDS) Polychromatic Stain - Interior

### Product

Polychromatic Stain - Interior is a water-based economical alternative to expensive epoxy coatings for interior concrete floors where a pearlescent metallic color is desired. Polychromatic Stain has excellent water and efflorescent resistance and superior durability. It has strong UV resistance and adhesion to a wide variety of substrates and it will not chalk or yellow. Achieve true metallic looks over plain concrete, apply over a white overlay for brilliant metal colors or apply over the top of stained concrete to bring metallic hues.

### Coverage

Coverage rate is 200 square feet per gallon. Coverage variations occur based on concrete surface porosity and amount of material applied.

### Surface Preparation

Scratch test the concrete to verify the top surface is not dusting or disintegrating. Concrete must be clean and free of all dirt and contaminants. Concrete floors must be open and porous prior to applying Polychromatic Stain. All new concrete should be allowed to cure for a minimum of 45 days, or until a pH reading of 10.5 or less is achieved.

Approved materials for the cleaning and preparation process are as follows:

- CR-580 Degreaser – Used for the removal of oil and grease.
- CR-590 Paint & Sealer Remover – Used to remove paints and sealers.
- CR-765 Surface Etch & Prep – Used for laitance removal and opening of pores of the concrete.
- CR-585 Surface Neutralizer – Used to balance the surface pH after application of Surface Etch & Prep

Step 1: If needed remove all paint and/or sealer from the surface using CR-590 Paint & Sealer Remover

Step 2: If the surface has an oily or greasy film OR if CR-590 Paint & Sealer Remover was used, scrub the surface using CR-580 Degreaser.

Step 3: (REQUIRED) Apply CR-765 Surface Etch & Prep at a dilution ratio of 4 parts water to 1 part Surface Etch & Prep scrub in with a stiff bristle broom. When the fizzing action stops, rinse the surface with water. Do not allow the Surface Etch & Prep solution to dry on the concrete. If a more porous surface is needed repeat Step 3, an interior floor's surface texture should feel similar to 120 grit sand paper.

Step 4: (REQUIRED) Apply CR-585 Surface Neutralizer (dilution of 8 oz in 5 gallons water) using a stiff bristle brush or broom to scrub in the neutralizing solution then rinse with water.

Step 5: (REQUIRED) Thoroughly scrub the surface. Interior floors require the use of a floor machine (buffer) with a black pad, sanding screen or coatings removal pad.

Step 6: Concrete must be completely dry prior to application. It is strongly recommended that a surface probe moisture meter be utilized to verify the surface is dry. After visually determining the concrete is dry, test a minimum of 10 different areas of the concrete with the moisture meter. Pay special attention to cracks, control joints, and slab edges.

Dispose all waste water in accordance with local, state, and federal regulations.

**Color Test** - Apply a test sample in an inconspicuous area of the floor to verify color. It is advised to use the same application method for the test spot as what is planned for the entire floor.

## **Application**

### **SPRAYER – HVLP or Airless only**

Stir very well before use, pigment settles. Pour Polychromatic Stain through a cotton mesh filter prior to use. Spray using an airless or HVLP spray system. When applying 2 coats, spray the second coat perpendicular to the first. Always use a chemical respirator when spraying with an airless or HVLP spray system. Keep containers closed when not in use, unattended open material will form a skin on the surface.

**Thinning** - Do not thin

### **Drying Time**

Dry to touch: 30 minutes

Dry hard: 55 minutes

Recoat: 2 hours

Light Foot Traffic: 4 hours

Full Cure: 72 hours

The listed dry times are for 75 degree (F) temperatures and medium humidity. Low temperatures and/or high humidity will slow drying and curing time.

### **Top Coat/Clear Coat**

After the final coat of Polychromatic Stain has been applied allow minimum of 2 hours dry time, then apply 1-2 coats of CR-515 Inside Acrylic or 4-8 coats of CR-520 Inside Floor Finish.

**Clean Up** - Tools can be cleaned with soap and water.

### **Performance**

% solids by weight – 31% (ASTM D2369)

60 degree gloss – 100% (ASTM D523)

Pencil Hardness – 4B (ASTM D3363)

Flexibility – Greater than 32% elongation (the maximum for ASTM D522)

Impact Resistance – 40 inch-lbs (ASTM D2794)

Abrasion Resistance – Wear index of 0.248, CS17 wheels, 1000g load (ASTM D4060)

Chemical Resistance – 1 hour spot test (ASTM D1308)

- Water – No softening, blistering, flaking or discoloration
- Detergent– No softening, blistering, flaking or discoloration
- Dilute Base (pH13) – No softening, blistering, flaking or discoloration
- Dilute Acid (pH2) – Discoloration, but no softening, blistering or flaking
- Gasoline– No softening, blistering, flaking or discoloration
- Motor Oil– No softening, blistering, flaking or discoloration
- Red Wine– No softening, blistering, flaking or discoloration
- Ketchup – No softening, blistering, flaking or discoloration
- Mustard– Discoloration, but no softening, blistering or flaking

\*Performance testing conducted by an independent laboratory.

### **Storage and Shelf Life**

Do not allow to freeze. Shelf life of unopened product is approximately one year.

### **Limitations**

Not suitable for flooring that is exposed to harsh chemicals. In high traffic areas a maintenance coat of CR-520 Inside Floor Finish is required.

Air and substrate temperatures must be minimum 50 degrees (F). Do not apply when air or surface temperature exceeds 90 degrees (F) or LAP marking / poor penetration / bubbling may result.

Do not apply to wet or damp concrete, moisture will inhibit penetration of the sealer and cause improper curing, flaking or lifting of the sealer.

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Do not apply if dew may condense on the surface before the sealer has cured. Allow for extended dry times during cold weather / high humidity.

## **Slip and Fall Precautions**

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Concrete Stain & Supply, LLC recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Concrete Stain & Supply, LLC or its sales agents will not be responsible for injury incurred in a slip and fall accident.

## **Moisture Vapor Emissions/Alkalinity Precautions**

All interior concrete floors not poured over an effective moisture vapor barrier/inhibitor are subject to possible moisture vapor transmission and related high levels of alkalinity that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions or alkalinity are present before applying any coatings.

Warranty– This warranty is made in lieu of all other warranties, either expressed or implied. Before application the User shall determine the suitability of the product for his/her intended use and User assumes all risks and liabilities whatsoever in connection therewith. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of this product and no warranty is made as to the results of any use. The Manufacturer and/or Seller warrants that if any goods supplied prove defective in material the sole obligation shall be to replace said product. Any claim of defective product must be received in writing within one (1) year from date of shipment. Neither Manufacturer nor Seller shall assume any liability for injury, loss, or damage resulting from use of this product.

Ordering – Contact Engrave-A-Crete at 1-800-884-2114

• [www.ConcreteResurrection.com](http://www.ConcreteResurrection.com) • [www.Engrave-A-Crete.com](http://www.Engrave-A-Crete.com)

Manufactured by Concrete Stain & Supply, LLC