

## PI.148 - PRODUCT INFORMATION: HYDRA-STONE™ Dye Stain

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HYDRA-STONE™ Dye Stain is a concentrated, penetrating, metal complex dye that chemically colors polymer modified concrete overlays and some conventional concrete surfaces to produce a permanent and translucent color effect.

### 1. DESCRIPTION and USES:

HYDRA-STONE™ Dye Stain is engineered and formulated to add permanent color to polymer modified concrete overlays and some conventional concrete surfaces.

HYDRA-STONE™ Dye Stain creates translucent coloring effects. Elegant, distinctive and lasting, the look is ideal for architectural concrete surfaces such as interior floors and walls.

Surfaces colored with HYDRA-STONE™ Dye Stain offer the unique appearance of those from ancient times yet offer the design, appeal and elegance modern designers want.

HYDRA-STONE™ Dye Stain is ideal for shopping malls, retail floors, residential floors and office complexes and becomes alive with durable, yet imaginative, glare-reducing colors and patterns.

HYDRA-STONE™ Dye Stain offers superior durability and abrasion resistance compared to that of conventional concrete floors coated with acrylic stains and paint which can wear off weather away quickly and delaminate. HYDRA-STONE™ Dye Stain becomes a permanent part of the surface which will not peel or flake off.

When planning an installation of HYDRA-STONE™ Dye Stain, the coloring effect can be increased by first installing a colored base or texture coat in the form of TEXTURE-PAVE™, THIN-FINISH™ or MICRO-FINISH™ Pre-Mixed Overlays. In addition, ULTRA-STONE™ Antiquing Stain can be used after the HYDRA-STONE™ Stain has dried to add additional coloring highlights.

### 2. PRODUCT LIMITATIONS:

HYDRA-STONE™ Dye Stain is not intended to be used to hide existing surface defects or correct construction errors. If such a result is desired, first use TEXTURE-PAVE™, THIN-FINISH™ or MICRO-FINISH™ Pre-Mixed Overlays to resurface the concrete prior to installing the HYDRA-STONE™ Dye Stain.

The finished coloring effects produced are determined by chemical composition, mix design, dilution, surface porosity, age, texture and substrate color.

The appearance of the finish will also vary due to the color of the dilution of the HYDRA-STONE™ Dye Stain using HYDRA-STONE™ Reducer, number of applications, experience of use, method of application and the type of protective sealer used on the finish.

The user should verify and approve the suitability and appearance by installing a small test section. Variations in color and intensity will occur. The coloring obtained and the depth of penetration is not predictable. Concrete from separate pours or loads, as well as patched areas should expect for HYDRA-STONE™ Dye Stain to take differently.

The abrasion and wear resistance as well as the durability of the HYDRA-STONE™ Dye Stain depends on the strength and abrasion resistance of the concrete surface or polymer modified concrete overlay which is to be stained.

Reduction may cause inconsistency in finished color results. Produce test sample first. Reduction may also result in color fading. Area of combined direct sunlight exposure may result in fading of color.

Therefore it HYDRA-STONE™ Dye Stain is not recommended for exterior applications or interior applications in direct sunlight.

The application of a protective sealer will greatly assist in the protection of the HYDRA-STONE™ Dye Stain finish.

### 3. COMPOSITION and MATERIALS:

HYDRA-STONE™ Dye Stain is a concentrated metal complex solution.

### 4. APPLICABLE STANDARDS:

HYDRA-STONE™ Dye Stain complies with applicable air quality management regulations.

### 5. COLORING EFFECTS:

HYDRA-STONE™ Dye Stain is available in 20 standard colors. See color chart. The coloring effect produced may differ from that shown on the color chart. Experimentation with colors and application techniques is suggested. A test area should be installed to ensure product suitability and color.

For a greater selection of coloring, HYDRA-STONE™ Stain can be applied to colored TEXTURE-PAVE™, THIN-FINISH™ or MICRO-FINISH™ Pre-Mixed Overlays.

### 6. SPECIAL EFFECTS:

Many unique design effects are possible. Experimentation with various colors of HYDRA-STONE™ Dye Stain and applications techniques is suggested.

Special effects can be achieved by applying two or more colors of HYDRA-STONE™ Dye Stain or by applying ULTRA-STONE™ Antiquing Stain over dry HYDRA-STONE™ Dye Stain.

Dramatically patterned flooring can be created by saw cutting abstract patterns, tiles, stones, shapes and logos in to the floor and then staining adjacent areas in different colors.

### 7. PACKAGING:

HYDRA-STONE™ Dye Stain is available from stock in liquid concentrate form in 1 quart bottles, 1 gallon bottles and 5 gallon pails.

HYDRA-STONE™ Reducer is available from stock in 1 gallon and 5 gallon pails.

### 8. COVERAGE:

Although one coat of HYDRA-STONE™ Dye Stain may achieve desired results, multiple coats may be applied.

HYDRA-STONE™ Dye Stain is ready to use for deep, dark colors or may be diluted with HYDRA-STONE™ Reducer for lighter colors. Dilution of up to 5:1 is common.

HYDRA-STONE™ Dye Stain coverage will vary depending on the dilution, porosity of the surface, texture, substrate color, composition, age, preparation and application technique.

The coverage rate is approximately 200 to 300 square feet per gallon, per application.

### 9. SHELF LIFE:

Under normal conditions when properly stored, the shelf life of HYDRA-STONE™ Dye Stain is one year from date of purchase. Containers should be tightly closed and stored upright, away from direct sunlight, combustible materials and sources of heat. Stock should be rotated.

#### 10. CAUTIONS:

HYDRA-STONE™ Dye Stain and HYDRA-STONE Reducer is FLAMMABLE. Only use with proper ventilation. Extinguish all pilot lights and open flames. Use with extreme caution.

Do not get in eyes, on skin or clothing. Wear vapor mask (NIOSH/MSHA TC 23C approved), goggles, gloves and protective clothing. Use with adequate ventilation. Do not breathe vapor or mist. Close container after each use. Store away from combustible materials and sources of heat.

DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. Wash thoroughly immediately after handling. Before using or handling, read the Material Safety Data Sheet and Warranty.

#### First Aid:

Eyes – FLUSH IMMEDIATELY THEN SEEK MEDICAL ATTENTION.

Flush eyes with large amounts of water.

Ingestion – Give large amount of water or milk. GET MEDICAL ATTENTION IMMEDIATELY.

Skin – Wash thoroughly with soap and water. Remove soiled clothing and wash before use.

Inhalation – Move to fresh air. If symptoms develop or persist, seek medical attention.

In case of spill, neutralize, absorb with inert material and dispose of in accordance with applicable regulations. Do not reuse empty containers.

#### 11. TEST SECTIONS:

Proper use of HYDRA-STONE™ Dye Stain requires experimentation, skill and practice. The color produced is unique to each surface and depends on the substrate composition, number of applications, mix design, porosity, age, texture and existing color.

To verify and approve the suitability and appearance, representative test sections must be produced prior to the general application of the stain on each individual surface for each individual color.

Test sections should be of adequate size to be representative, and be produced by the same workers who will apply the HYDRA-STONE™ Dye Stain using the same color, method of application and application technique. All test sections should be prepared, stained and sealed as specified.

If little or no coloring takes place, use a darker or more concentrated color. If the surface is old or weathered, chemical staining may not be possible.

#### 12. EQUIPMENT:

Protective clothing and equipment should be used during the preparation and application of HYDRA-STONE™ Dye Stain and all safety regulations should be followed.

HYDRA-STONE™ Dye Stain is typically applied by brushing or by pump up type sprayers. Other types of application methods can be used such as sponges, paint rollers or small spray bottles. All preparation and application procedures should be tested before use to ensure suitability.

Brush application – The brush should be of a professional quality with a long handle.

Spray application – The sprayer should be of a professional quality. An air sprayer is not recommended.

Cleaning conventional concrete – A 2800 psi (or higher) pressure washer with a fan tip is recommended if excess water drainage is possible. If water drainage is not possible, use a rotary floor scrubber with 175 RPM.

#### 13. SUBSTRATE PREPARATION:

Prior to the application of HYDRA-STONE™ Dye Stain, a test area must be produced and approved. Surfaces should be adequately textured for slip resistance.

Surrounding areas, landscaping and adjacent surfaces should be protected. The work area should be sectioned off, nearby vehicles should be removed and appropriate sections should be closed to traffic.

Before applying HYDRA-STONE™ Dye Stain, clean to remove all dirt, dust, oil, or anything that will interfere with the staining process and uniformity. Coatings, water repellents, adhesives and curing membranes must be removed by sandblasting, planing or scarifying.

Liquid curing materials must not be used. Concrete flatwork should be cured with new curing paper. Overlapping or wrinkles in the curing paper will create defects which will be enhanced by the HYDRA-STONE™ Dye Stain.

Existing concrete should be cleaned so the surface is penetrable before the first application of the HYDRA-STONE™ Dye Stain. A test for penetration can be achieved by wetting a small section of the concrete. If the water darkens the surface and does not bead, the surface is suitable for HYDRA-STONE™ Dye Stain. If the water beads on the surface, a sealer may need to be removed prior to the application of the HYDRA-STONE™ Dye Stain.

The cleaning method to be used depends on the condition of the concrete. To remove dirt or other contaminants, detergents or commercial cleaners should be considered and tested. Pressure washing or scrubbing with a rotary scrubbing machine is normally required. After cleaning, the surface should be rinsed to remove any remaining residue. Rinsing should continue until the surface is sufficiently cleaned. Wet vacuums may be used to remove rinse water. After rinsing, the surface should be tested for penetrability.

Surfaces overlaid with TEXTURE-PAVE™, THIN-FINISH™ or MICRO-FINISH™ Overlays should be dry and any liquid release should be 100% evaporated prior to the application of HYDRA-STONE™ Dye Stain.

#### 14. APPLICATION PROCESS:

All surfaces must be dry and properly prepared and cleaned as described in section 13. The surface should be divided into smaller sections using walls, joint lines, design saw cuts or other features as natural stopping points. This allows for easier control of coverage, wet edge and overlap. The application procedures should be planned so the wet surface will not be stepped on. Safety precautions must be followed and full protective gear must be worn.

HYDRA-STONE™ Dye Stain should be applied by brush, roller, sprayer or HYDRA-STONE™ Detailing Pen.

#### 15. SEALING:

HYDRA-STONE™ Dye Stain should be sealed for ease of maintenance and to protect the surface, using materials that have demonstrated compatibility. Seal as soon as the surface is dry and can be walked on. Additional information is available in the Elite Crete Systems Technical Data TD-414 SEALER OPTIONS.

#### 16. AVAILABILITY:

HYDRA-STONE™ Dye Stain is marketed nationwide and internationally, directly to trained installers through strategically located authorized distributor and suppliers.

#### 17. WARRANTY SUMMARY:

For the complete warranty statement and important limitations, read the Material Safety Data Sheet and Warranty. Generally, Elite Crete Systems, Incorporated represents and warrants only that its products are of consistent quality. No other oral or written statement is authorized. Any liability is limited to refund or replacement of the defective product. The end user shall determine product's suitability and assume all risks and liability.