



## LITHOCHROME® Tintura™ Stain

A high performance, self-priming, low-odor, reactive polymer stain for use on interior or exterior, vertical or horizontal concrete and other cementitious surfaces. It is designed for use as a primer/basecoat beneath clear solvent or waterborne acrylic, urethane, or epoxy sealers. VOC < 50 g/L (0.41 lb/gal)

### TECH-DATA BULLETIN A-424.07

#### 1. Product Description:

LITHOCHROME® Tintura™ Stain is a high performance, self-priming, low-odor, reactive polymer stain for use on interior or exterior, vertical or horizontal concrete and other cementitious surfaces. It is designed for use as a primer/basecoat beneath clear solvent or waterborne acrylic, urethane, or epoxy sealers. It is an excellent choice for areas that must be quickly returned to service. It can be applied lightly to gently tone surfaces, spot sprayed, sponged, or layered to develop variegated artisan effects. It can be applied at lower coverage rates to develop rich opaque colors.

LITHOCHROME Tintura can be applied by brush, roller, sponge, or spray equipment. It is ideal for use on older slabs to mimic the look of acid stain, or for coloring patches on previously colored or acid stained floors.

LITHOCHROME Tintura is a unique self-crosslinking system of acrylic and inorganic silicate polymers that penetrate, strengthen, and tightly bind color to cementitious surfaces. LITHOCHROME Tintura is not designed as a stand-alone floor finish. After application, it must be sealed with a premium protective coating such as Scofield® Selectseal-W™, Scofield® Cureseal-S™, Scofield® Cureseal-VOC™, or Scofield® Cureseal-100™.

#### 2. Colors:

LITHOCHROME Tintura Stain is available in all colors depicted on Scofield's color charts. Custom colors are available. Contact your Scofield representative for pricing and order minimums.

#### 3. Artistic Effects:

Near infinite artistic effects can be created with Tintura. Different colors of Tintura may be sprayed, layered, sponged, stenciled, stamped, or spattered over one another. When lightly applied, the final color and appearance will be unique to each concrete surface, and may vary greatly from color cards and color samples. When developing artistic effects, the creation of a test section as described in section 6 of this document is required to verify and approve product suitability, color and artistic effect.

#### 4. Coverage:

Coverage will depend upon the method of application, the desired final appearance, and the surface porosity and texture of the substrate. Typical opaque coverage on flat finished concrete is 300 – 800 sq.-ft./gallon (7–20 m<sup>2</sup>/L). For light cloud effects on steel troweled concrete, coverage up to 1,200 sq.-ft./gallon is possible. Light applications will reduce substrate strengthening effect of the product. To accurately determine coverage, a test area as described in section 6 below must be performed.

#### 5. Limitations:

LITHOCHROME Tintura Stain must only be used on dry concrete that is above grade or on ground that is well-drained. Do not use on damp concrete, concrete slabs on damp ground, or on concrete that will be constantly exposed to moisture. Prior to application, ensure that concrete is dry by confirming that the Moisture Vapor Emission Rate (MVER) is below 5 lbs./1000sq.ft per 24hours, or test to determine Relative Humidity (RH) within the concrete is below 85%. Do

not apply when air or surface temperatures are below 45°F (7°C), or may be prior to drying. Allow Tintura to completely dry prior to topcoat application. Only use LITHOCHROME Tintura Part A tinting products to color Tintura Stain.

**Tintura is not designed for immersion service** or for use on surfaces subjected to reverse hydrostatic pressure. It will not perform properly on surfaces where oil, dirt, prior coating, sealer, or other substances that impede penetration are present. It will not stick to sandy, soft, or heavily eroded surfaces. If any of these are present, Tintura may lose adhesion. It is not designed to be a thick film coating, and will not hide surface blemishes, construction errors, or imperfections. If applied to natural stone or ground concrete with exposed aggregate, check to ensure the Tintura and selected topcoat develop acceptable adhesion to these stone surfaces. Always evaluate Tintura on a Jobsite Test Section as described in section 6. *Jobsite Test Sections*.

**Textures and Slip Resistance:** Before finalizing application technique and sealer system selection, prepare Jobsite Test Sections as described in section 6 and evaluate for adequate slip resistance and SCOF (Static Coefficient of Friction). Do not create slippery floors that are dangerous. Test completed projects to ensure floors are safe.

#### 6. Jobsite Test Sections:

Prior to general application, representative Jobsite Test Section(s) must be produced and approved for each individual concrete surface, and for each color and sealer combination that will be created. Use Jobsite Test Sections to verify system suitability, surface preparation methods, adhesion, safety, performance, wet and dry slip resistance, application techniques, color, visual appearance, and product coverage. Do not proceed with products, techniques, or finishing systems that do not meet required specifications or meet with site owner approval.

Selected Jobsite Test Sections should be in close proximity to the larger job area, and made from the same or similar concrete pour. Ideally, select areas will later be covered by another type of flooring material such as sheet vinyl, tile or carpet. Test sections should be sized to be representative of the finished project, and be produced by the same workers who will apply the stain and topcoat system. All test sections should be presented to owners for visual and performance approval prior beginning main project areas.

Begin Job Site Test Sections by applying a small amount of stain to test for penetration. If penetration is poor because the surface is unusually dense from steel troweling or from presence of cement laitance, sealers, previous coatings or oils, these must be removed by concrete grinding with a 100 grit diamond disc, power washing, or acid etching the surface to ensure the stain can penetrate. Rinse well and remove all dust and residue from the surface, and allow it to completely dry, before retesting.

#### 7. Packaging:

LITHOCHROME Tintura ships in 1-gallon (3.8 L) cans labeled as Part B that is designed to be colored with Part A tint cups. Smaller premixed Pints are available upon request. Because some colors require less tint material than others, some tint cups are packaged partially full.



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**8. Storage and Shelf Life:**

DO NOT FREEZE! Unopened and stored at 40°F to 120°F, LITHOCHROME Tintura has a 1 year shelf life from date of purchase. Once opened or mixed with a Part A tint cup, the shelf life is one month.

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**9. Stain Preparation and Mixing:**

Prior to combining Part A with Part B, mix each separately until it is uniform. Tintura Part B is milk white and will look like a heavy cream prior to tinting. Combine Part A and Part B and mix until it is again uniform consistency and appearance. The material is now ready for use. Some heavier tints will produce more material than the gallon container of Part B will hold. In these cases, products should be mixed together in a clean plastic pail. If lighter or less opaque colors are desired for artisan effects, the use of less than an entire tint cup is allowed and will not impact product performance.

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**10. Substrate Preparation:**

LITHOCHROME Tintura must only be applied to concrete that is fully cured, dry, and a minimum of 21 days old. Surfaces must be dry and clean of all prior sealers, curing compound, oils, or other deleterious materials that might prevent penetration or adhesion, and meet a Concrete Surface Profile (CSP) of 1, as determined by the International Concrete Repair Institute, (ICRI), Alexandria, VA. Grind, acid etch, power wash, or scrub surfaces with stiff bristle brushes and strong detergents to remove these undesired materials and any loose concrete laitance that may harm adhesion.

Always rinse surfaces and allow them to completely dry prior to application. Plan carefully and divide work areas into sections using walls, joint lines, or other stationary features to provide natural stopping points of the application.

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**11. Application:**

Apply LITHOCHROME Tintura by brush, roller, HVLP, airless, or pump-spray application. Always wear protective clothing, goggles, gloves, and particulate respirators. Clean equipment with warm water and detergent immediately after application. Remove overspray immediately with hot water and industrial detergent. Dried material will be difficult to remove. Tintura is designed to penetrate surfaces. If applied heavily over tape, it will crawl and stain under the tape. When tape masking is used, spray application of multiple light coats is recommended.

Dry times will depend upon the selected coverage rate, penetration into the substrate, and weather conditions. At 70°F and 50% relative humidity with an application rate of 400 SQ. FT. per gallon (10 SQ. M/L, dry to touch times of 1 hour are expected. Additional coats to produce artistic effects, inclusive of spray application onto stain that is still wet, may be applied.

Allow to dry for at least 12 hours before application of any topcoat. Primary hardness is achieved in 24 hours, with additional curing taking place over 3-7 days depending upon temperature and substrate type.

Spray applicator Guidelines:

Airless spray: 1500–2500 psi (10–17 MPa) fitted with a fan tip of 0.013–0.018 inches (0.33–0.46 mm).

HVLP spray: 5–40 psi (35–275 kPa)

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**12. Cautions:**

WARNING! MAY IRRITATE EYES, SKIN, AND RESPIRATORY TRACT. DO NOT TAKE INTERNALLY. DO NOT BREATHE IN SPRAY MIST. CONTAINS CAUSTIC ALKALI SILICATE. KEEP OUT OF THE REACH OF CHILDREN.

First Aid: Eyes—DO NOT RUB EYES. FLUSH IMMEDIATELY WITH WATER. Hold eyelids apart while flushing material out thoroughly with large amounts of water. Skin—Wash thoroughly with soap and water. Remove soiled clothing and footwear and wash before reuse. Inhalation—Move to fresh air. If symptoms develop or if ingested, get medical attention.

Wash thoroughly immediately after handling. Close container after each use. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Do not reuse empty container. Before using or handling, read the Material Safety Data Sheet and Warranty.

LITHOCHROME Tintura Stain must never be mixed with LITHOCHROME® Chemstain® Classic or any other chemical stain. Doing so can produce a dangerous chemical reaction and vapors.

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**13. Availability:**

LITHOCHROME Tintura is marketed internationally through strategically located dealers, and representatives. Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance of architectural concrete. These include coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools. Visit the Scofield website at [www.scofield.com](http://www.scofield.com) for further information.

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**14. Limited Warranty:**

L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality and within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESSED OR IMPLIED, NOW OR HEREFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Liability for breach of contract, negligence, or on any other legal basis is limited to the lesser of refund or replacement of defective materials. SCOFIELD 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 Scofield, but should be communicated by those in direct contract with the end user. Any claim regarding product defect must be received in writing within one year from the date of manufacture. No claim will be considered without such written notice or after the specified time interval. The end user shall determine the suitability of the products for the intended use, and assumes all risks and liability in connection therewith.

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**15. Maintenance:**

On walkways, A maintenance application of the topcoat should be made periodically to replace topcoat that is worn from the surface. All maintenance methods should be tested.

***Suggested Short Form Specification for Staining Concrete Flatwork:***

All concrete surfaces designated as being stained in the plans or specifications shall be stained with LITHOCHROME® Tintura™ Stain in \_\_\_\_\_ color after the concrete has cured a minimum of 21 days. The surface shall be prepared and LITHOCHROME® Tintura™ Stain shall be applied full strength in accordance with Tech-Data Bulletin A-424 using the recommended coverage rate. The contractor shall submit the final stain color and application techniques on jobsite test samples to be approved by the architect prior to installation. All chemically stained surfaces shall be sealed with SCOFIELD® Selectseal-W™, SCOFIELD® Cureseal-S™, SCOFIELD® Cureseal-VOC™, or SCOFIELD® Cureseal-100™ in accordance with Tech-Data Bulletin B-504, B-604, B-614, or B-624. All products shall be manufactured by L. M. Scofield Company, (800) 800-9900, Los Angeles, CA, (323) 720-3000, and Atlanta, GA, (770) 920-6000.

**1 800 800 9900 or [www.scofield.com](http://www.scofield.com)****SCOFIELD PRODUCTS ARE INTENDED FOR PROFESSIONAL USE ONLY****■ L. M. Scofield Company customer service: 1 800 800 9900****Western Headquarters:** 6533 Bandini Blvd., Los Angeles, CA 90040 **voice:** 323 720 3000 **fax:** 323 720 3030**Eastern Headquarters:** 4155 Scofield Road, Douglasville, GA 30134 **voice:** 770 920 6000 **fax:** 770 920 6060**[www.scofield.com](http://www.scofield.com)**