

Liquid Dye Concentrate

INNOTECH LIQUID DYE CONCENTRATE is a penetrating, translucent, micronized and non-reactive dye. Once diluted with either acetone or water, it can be applied to uncolored or colored interior concrete surfaces, to overlays, and to be used in the Innotech Grind/Polishing process. This product will provide intense coloring effects without creating a film or coating that can be worn away. INNOTECH LIQUID DYE CONCENTRATE is available in 16 vibrant standard colors.

Product Features and Benefits

INNOTECH LIQUID DYE CONCENTRATE...

- Is for use in interior applications only!
- Deeply penetrates and resides in the microscopic voids and substrate structure of properly prepared concrete and overlay surfaces.
- Is a viable alternative to traditional reactive stains, such as INNOTECH CHEMICAL STAIN[†], when a larger color palette or ease of installation is required.
- Is ideal for polished concrete due to its depth of penetration.
- Can be utilized in conjunction with all INNOTECH Coloring Systems as a coloration tool in the production of concrete flooring and precast elements provided that the installation will not be subject to UV Light exposure.
- Is manufactured as a "liquid concentrate" and is mixed with acetone (SB) or water (WB) at the jobsite. The dye includes both the color and the extender solvent. After thorough mixing the dye is ready to use - generally in a few minutes.
- Can be diluted to achieve a softer shade of the base colors.

Prior to Application

Always create an actual finished mock-up sample for client approval prior to installation of each project.

- INNOTECH utilizes the International Concrete repair institute (ICRI) Concrete Surface Profile (CSP) standards for specifying finished surface roughness prior to applying INNOTECH LIQUID DYE CONCENTRATE. For proper adhesion, the concrete must be a minimum #1 according to the ICRI CSP chart. Contact ICRI at www.ICRI.org or INNOTECH for more information on these surface profiles.

Product Application to Concrete and Polished Concrete

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- A correct surface pH (7-9) is critical before applying INNOTECH LIQUID DYE CONCENTRATE or any other coloration product and sealer. Check the pH with a pH pencil from your local supplier, use according to manufacturer instructions.
- INNOTECH LIQUID DYE CONCENTRATE is best applied with a professional grade non-electric, hand-pump sprayer designed for use with acetone. Utilize a fine brush for detail work.
- Protect adjacent surfaces from over-spray, as INNOTECH LIQUID DYE CONCENTRATE will discolor any porous substrate.
- **Important:** INNOTECH LIQUID DYE CONCENTRATE used with Acetone and sprayed with a fine mist can be used with tape to achieve separation between colors along with the standard method of saw cuts or adhesive stencils.
- The surface to be colored with INNOTECH LIQUID DYE CONCENTRATE must be clean and dry. Do not apply this product to damp surfaces, as penetration will be greatly reduced. Ideal results are achieved from a dry grinding and polishing process applied at the 400-grit level and up. For subsequent floor cleanings, an auto scrubber, rather than the use of a technique that will saturate the floor should be used.
- Many factors influence the amount of color retention or loss. Generally, INNOTECH LIQUID DYE CONCENTRATE will be applied at the 400-grit level of polishing with subsequent polishing beginning again at the 800-grit level once product is dry. In some cases, the applicator may wish to use a light application of DYE subsequent to the first application at the 800- or even 1500-grit level for maximum color intensity.
- If a uniform appearance is desired, multiple coats of a solvent-based Liquid Dye Concentrate blend will provide the best results. If a more variegated or mottled appearance is desired, multiple coats of a water-based Liquid Dye Concentrate blend will provide the best results.
- To obtain an appearance similar to INNOTECH CHEMICAL STAIN[†]— For best results, layer diluted SB and WB dyes as follows:
 - 1) Apply diluted SB dye;
 - 2) Apply WB dye diluted 50/50 with solvent (or greater); and
 - 3) Spray out randomly with varying coverage rates. This type of application will result in more product residue than an application of straight diluted acetone.
- After INNOTECH LIQUID DYE CONCENTRATE application, subsequent polishing will typically remove any residue that may be reconstituted when applying a stain resist or finish sealer. If wet polishing (as opposed to dry polishing) greater color loss can be expected. If multiple, separated colors are being incorporated into a floor design, it will be necessary to lightly wash the surface of each color individually with a mop or scrub by hand with a soft to medium bristled broom, being sure to remove ALL residues so that no color contaminates adjacent areas.
- Once the concrete has dried completely, application of INNOTECH STAIN GUARD[†] is highly recommended as a surface protectant to provide water repellency, stain resistance and additional gloss.
- Clean all sprayers and equipment with acetone immediately after use then flush clean with water.

Product Application to INNOTECH Overlays: Micro-Topping, Micro-Topping EXT or Stampable Overlay

Always create an actual finished mock-up sample for client approval prior to installation of each project.

- Protect all adjacent surfaces from over-spray, as INNOTECH LIQUID DYE CONCENTRATE will discolor any porous substrate. For example, the use of duct tape applied over blue tape may be required to minimize bleed. To achieve separation between colors at hard lines, use of saw cuts or stencils will be required.
 - The surface to be colored with INNOTECH LIQUID DYE CONCENTRATE must be clean and dry. Do not apply INNOTECH LIQUID DYE CONCENTRATE to damp surfaces, as penetration will be greatly reduced.
 - For INNOTECH MICRO-TOPPING[†] or INNOTECH MICRO-TOPPING EXT[†], lightly sand the topping and tack wipe up the dust prior to application of INNOTECH LIQUID DYE CONCENTRATE.
 - For INNOTECH STAMPABLE OVERLAY[†], clean the overlay surface thoroughly to remove any residual liquid release. A mildly acidic cleaner, such as INNOTECH CON-CLEAN[†], can be utilized for this application.
 - Follow the same mixing procedures as noted in the section "Product Features and Benefits".
- NOTE:** Referenced dilutions are based on the use of acetone.
- If a uniform appearance is desired, then multiple coats of INNOTECH LIQUID DYE CONCENTRATE diluted with acetone will provide the best results. If a more variegated or mottled appearance is desired, then a blend of water and acetone will provide an appearance more characteristic of INNOTECH CHEMICAL STAIN[†].
 - Flooding a polymer-modified overlay with solvent-diluted INNOTECH LIQUID DYE CONCENTRATE can soften the overlay. Be sure to sample all applications before proceeding.
 - Layering a 20 or greater acetone dilution over the entire slab to achieve some base color followed by a heavier application of a 50/50 water/acetone blended 10 or greater dilution sprayed out in a random fashion with varying coverage rates will provide good results.
 - This type of application will result in more product residue than will an application of straight diluted acetone.

- Correct application of INNTECH LIQUID DYE CONCENTRATE will result in little to no residue, and the sealing application can begin once the dye is dry. A heavy application of INNTECH LIQUID DYE CONCENTRATE may require a water wash. Rinse water will stain adjacent surfaces if allowed to dry. It is not necessary to neutralize INNTECH LIQUID DYE CONCENTRATE during the washing process, as it does not leave a dramatically acidic residue.
- Once the concrete has dried completely, proceed with an application of an appropriate INNTECH Sealer. **NOTE:** The above guidelines reference various dilutions—the appearance of a INNTECH LIQUID DYE CONCENTRATE treated floor is highly dependent upon the application.
- Clean all sprayers and equipment with acetone immediately after use then flush clean with water.

Maintenance

All installations should be maintained on a routine basis with the use of INNTECH maintenance products to ensure the preservation of a high-quality, long-lasting surface. Maintenance schedules will vary depending on a number of factors, including volume and intensity of traffic, ultraviolet light exposure, geographical location and weather conditions. Resealing will be required periodically, depending on the amount of foot traffic. As with any other surface treatment, the lifetime of this product is dependent on the care it is given. The use of a qualified flooring maintenance contractor is recommended for resealing, especially in commercial applications.

- Please reference the “INNTECH SEALER AND MAINTENANCE PRODUCT GUIDE” to determine the correct sealer for a specific application.

Product Limitations

- INNTECH LIQUID DYE CONCENTRATE is not for use in exterior applications where surface is subject to strong/direct UV Light exposure. **Use only for interior applications.**
- Do not use acidic cleaners on treated surfaces.
- Oil, grease, dirt, efflorescence, curing compounds, sealer, coatings, etc., will inhibit penetration into the concrete micro-voids and capillaries.
- Once the substrate has stopped accepting the INNTECH LIQUID DYE CONCENTRATE, no additional applications should be made. Dry, powdery pigment residue can begin to occur after over application.
- Do not allow INNTECH LIQUID DYE CONCENTRATE to freeze; do not apply INNTECH LIQUID DYE CONCENTRATE in freezing temperatures; and do not apply to surfaces with temperatures below 40 °F or when such temperatures can be expected within 4 hours following application.
- Protect surface against air movement or wind during initial application.
- Clean all sprayers and equipment with acetone immediately after use then flush clean with water.
- INNTECH LIQUID DYE CONCENTRATE (in the water-based dilution blend) will bleed dramatically.

Available Packaging and Coverage Information

Packaging: INNTECH LIQUID DYE CONCENTRATE is available in:

- ½-pint containers (to be mixed with 1 gallon of acetone or water).
- 1-quart containers (to be mixed with 1 - 5 gallon pail of acetone or water).

Coverage rates may vary depending on the texture, porosity and condition of the concrete, application method, and other local conditions.

- Coverage is approximately 500 square feet per gallon, per coat.

Dry Time

Drying times of INNTECH LIQUID DYE CONCENTRATE can be dramatically affected by temperature and humidity if diluted with water rather than acetone. Drying times below will vary depending on surface permeability, temperature, humidity and local conditions. When drying, do not cover surface with anything non-permeable for a minimum of 24 hours. See the “Limitations” section for more detailed information.

- Application must be made to concrete with a temperature higher than 50 °F and maintained at this temperature or above for a minimum of 4 hours after application.
- Typical Dry time to the touch is 5 - 10 minutes for the Dye mixed with Acetone (SB), and 45 - 60 minutes for the Dye mixed with Water (WB).

Technical Information

Please refer to the corresponding color MSDS for hazard-related information.

Physical Properties: Solvent-Based Dilution Blends

- Physical Liquid
- Odor Strong solvent smell
- Solids after application..... 100%
- UV Stability..... 5-10%+ fading to be expected if exposed

Physical Properties: Water-Based Dilution Blends

- Physical Liquid
- Odor Little to none
- Solids after application..... 100%
- UV Stability..... 5-10%+ fading to be expected if exposed

Product Shelf Life/Storage

INNTECH LIQUID DYE CONCENTRATE should be stored indoors, away from heat or direct sunlight. Do not store below 40 °F. If the Liquid freezes, discard. Shelf life: 12 months.

Product Handling

Prior to using INNTECH LIQUID DYE CONCENTRATE please reference the corresponding Material Safety Data Sheet to ensure safe handling. When using the SB version, INNTECH LIQUID DYE CONCENTRATE mixed with Acetone, we recommend you wear a vapor respirator.

Product Warranty

INNTECH LIQUID DYE CONCENTRATE is a proprietary product, warranted to be of uniform quality within our stringent manufacturing tolerances. As no control is exercised over the product use, no warranty is made as to the effects of such use (neither expressed or implied). Obligation of the seller and manufacturer under this warranty shall be limited to a refund of the purchase price of that portion of the material proven to be defective. The user assumes all other risk and liability resulting from uses of this product. Contact INNTECH with any questions regarding this policy. *Innotech is a registered tradename of CHROMASYSTEMS LLC, an Ohio company.*

†PLEASE REFER TO THE CORRESPONDING TECHNICAL BULLETIN FOR PRODUCT AND APPLICATION DATA.

INNTECH LIQUID DYE CONCENTRATE and other INNTECH products are for professional use only.

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