

Technical Bulletin

Stampable Overlay

INNOTECH STAMPABLE OVERLAY is a single-component polymer modified, fiber-reinforced cementitious topping formulated for resurfacing structurally sound, non-moving interior and exterior concrete surfaces. This product is for use with INNOTECH IMPRINTING TOOLS and can also be broom finished. INNOTECH STAMPABLE OVERLAY is generally applied at $\frac{3}{5}$ to $\frac{1}{7}$ inch thickness and is used on commercial, residential, municipal, theme park, and industrial applications.

INNOTECH STAMPABLE OVERLAY can be utilized for new construction or in a renovation. INNOTECH STAMPABLE OVERLAY has very high compressive strength, is fiberreinforced, and can be left exposed to vehicular traffic (INNOTECH recommends regular maintenance). This system consists of a wet primer application, pigmented latex modified mortar, release agent and sealer.

Product Features and Benefits

INNOTECH STAMPABLE OVERLAY...

- Is available in 42 standard colors.
 - 1. INNOTECH STAMPABLE OVERLAY Powder is available in white or gray base.
 - 2. INNOTECH STAMPABLE OVERLAY Tint Packs can be added to integrally color the material before application.
 - 3. Colors are approximate to colors found on the INNOTECH COLOR HARDENER† color chart.
 - 4. INNOTECH STAMPABLE OVERLAY can be pre-colored for larger projects (minimum order may apply).
- Is virtually odorless, environmentally safe, and easy to install by an experienced decorative concrete contractor. This product sets rapidly, can be applied over damp (not wet) surfaces and can be installed at temperatures as low as 55 °F.
- Will produce a finish just like stamped concrete but without having to remove the existing concrete which saves time, labor and expense.
- Ideal for interior as well as exterior applications.
- Can be used in conjunction with INNOTECH CHEMICAL STAIN†, REVITALIZE SOLID CONCRETE STAIN† and INNOTECH LIQUID DYE CONCENTRATE† to produce additional colors and subtle tones.
- Can be installed over a rigid waterproof membrane system to provide a composition waterproof decorative floor finish.
- Provides a fast track construction option by allowing the delay of decorative flooring installation until after the initial heavy construction is complete. This eliminates the need to invest in protection of the surface and greatly reduces damage from construction-related traffic.
- Installs quickly and can be planned for installation at the same time all other floor coverings and finishes are placed in a structure.
- May be applied in thicknesses ranging from a minimum of %-inch thick to a maximum of %-inch thick. The recommended application is %- to ½-inch thick.

Prior to Application

- Always create an actual finished mock-up sample for client approval prior to installation of each project.
- Reference the International Concrete Repair Institute (ICRI) Concrete Surface Profile (CSP) standards to specify finished surface roughness prior to applying this product. For proper adhesion, the concrete must be a minimum #3 surface profile in accordance with the ICRI CSP chart. Mechanical shot blasting, grinding or power scarifying achieves sufficient concrete profile. Contact ICRI at www. ICRI.org or INNOTECH for more information on these surface profiles.
- Concrete, whether existing or new, must be cleaned of all grease, paint, curing agents or loose concrete patches/droppings that may prevent adhesion. For best results, remove all spalls in concrete, decking materials, paint or other coatings.
- Always check the substrate for contaminants. Test and record surface alkalinity and moisture emissivity.

 Important: Although INNOTECH STAMPABLE OVERLAY is resistant to water, excessive moisture vapor transmission (MVT) can increase alkalinity at the bond line and promote delamination. Always monitor and record MVT conditions on grade and below grade surfaces. When MVT is not within specified tolerances, contact INNOTECH for assistance.
- Once the surface has been thoroughly cleaned, inspect the substrate for proper control joints and expansion joints (all joints must be maintained). Proper maintenance is best achieved by placing a corresponding joint in the INNOTECH STAMPABLE OVERLAY material during or after installation, followed by caulking and/or grout installation. Also inspect the substrate for undesirable cracks. Working cracks are anticipated to show through the surface of INNOTECH STAMPABLE OVERLAY unless properly treated. Working cracks can be repaired using a crack repair kit. If cracks are aggressive (1/8-inch or greater), a crack isolation system should be applied to minimize crack transfer. Hairline (non-working) cracks require no repair.

Important: When applying the product over rough concrete with deep pop-outs or imprinted concrete, prefill deep depressions with a rough pass to provide for reduced surface variation and material shrinkage.

Mixing Product

- Correct mixing of INNOTECH STAMPABLE OVERLAY is absolutely essential for the material to function properly.
- Measure out 1-gallon of clean, cool water. Start mixing the water with a mechanical blade mixer (or equivalent) while gradually adding one bag of INNOTECH STAMPABLE OVERLAY Powder. More than one bag can be mixed at a time in the proper container.
- Important: Depending on desired consistency, 1- to 1.25-gallons of water may be needed per 50-lb bag of Powder.

 If adding color on site with a INNOTECH STAMPABLE OVERLAY Tint Pack, add the entire contents of the tint pack to the mix water and blend thoroughly, then begin to add the overlay powder to the colored mix water. Be sure the color is thoroughly blended, and the color is consistent.
- Continue to mix the two materials together (never reverse the procedure and attempt to add the water into the Powder).
- After the material has been completely blended and is free from any obvious lumps, continue to mix for at least an additional two (2) minutes to be sure all Powder is thoroughly mixed.
- Apply INNOTECH STAMPABLE OVERLAY immediately upon completion of mixing. Working time of material is about 30-60 minutes, depending on temperature and humidity (high temperature and/or low humidity reduce working time). Do not mix more material than can be applied in that time.
- INNOTECH STAMPABLE OVERLAY can be mixed in a low speed mortar mixer following the same mixing ratios and sequences. Do not mix less than 60% of the mortar mixers maximum volume capacity.

Important: INNOTECH STAMPABLE OVERLAY bonds strongly to tools and equipment. Either wash equipment quickly and often after each use, or place the tools in water for later cleaning.

Product Application

STEP ONE: APPLICATION OF LIQUID PRIMER

To create the Liquid Primer, dilute INNOTECH STAMPABLE OVERLAY Liquid Primer one-to-one (50%) with cool, clean water. Apply Liquid Primer with a pump-up sprayer, paint roller or brush at 150-250 s.f. per gallon. Coverage rates may vary due to the ambient temperature, humidity and texture of concrete substrate. Work material into the surface with a stiff-bristled brush.

Important: INNOTECH STAMPABLE OVERLAY must be applied over wet or tacky prime-coat application. If the Primer dries, it can become a bond breaker. Apply a second coat of Liquid Primer if the first coat rapidly absorbs into the concrete or dries.

STEP TWO: APPLICATION OF STAMPABLE OVERLAY BODY COAT

While the primer is still tacky, apply the mixed INNOTECH STAMPABLE OVERLAY body coat. Spread the mix using a gauge rake, straightedge screed or a screed box to achieve the desired thickness. Continue to work new batches into the material already applied, working the two together to be sure cold joints or color differences do not occur. Use a trowel attached to a funny trowel handle or fresno to close up the poured material. Strike the material only one or two times. Do not overwork the surface as excess finishing will cause the material to tear and pull. Spiked shoes can be worn to walk into the material to finish edges, corners, and imperfections. Do not attempt to create a perfectly smooth surface as imprinting tools will eliminate minor surface imperfections. STEP THREE: IMPRINTING THE STAMPABLE OVERLAY

- Start imprinting when fingers can cause an impression without the material sticking to them.
- Use caution with liquid release agents. Premature application of LIQUID RELEASE PREMIUM† can cause blisters to form in the material. Normally, liquid release requires a longer set time for applications than powdered release.
- Immediately prior to imprinting, apply a liberal film of LIQUID RELEASE PREMIUM† on the selected imprinting tools using a pump-up sprayer. Apply a thin film of LIQUID RELEASE PREMIUM† to the INNOTECH STAMPABLE OVERLAY.

Important: (CAUTION) Avoid over-spray onto any pre-primed or open surfaces.
 When using RELEASE POWDER†: Apply the same procedures as when imprinting concrete.

STEP THREE: IMPRINTING

- Using INNOTECH IMPRINTING TOOLS, carefully align and lay the stamps into the material, taking care to position the tools to create the desired effect.
- Select INNOTECH IMPRINTING TOOLS that are designed for INNOTECH STAMPABLE OVERLAY applications. Tools with skinny joint profiles and 45-degree relief edges work best.
- Imprinting INNOTECH STAMPABLE OVERLAY is different than conventional concrete. The smaller aggregates require less aggressive manipulation; therefore, gentle malleting is necessary.
- When lifting the tools, gradually pull from both edges to relieve suction between the surface and the tool. Use INNOTECH IMPRINTING TOOLS fitted with handles, floppies or other tools designed for ease in handling.
- Use specially designed INNOTECH edging tools, chisels, and grout touch-up wheels. These provide clean, defined edges that help achieve a professional finish profile.
- Refrain from installing INNOTECH STAMPABLE OVERLAY in extreme weather conditions. Wind and heat can cause premature hydration, which results in shrinkage cracking. Shrinkage cracks are an aesthetic issue and will not normally result in long-term failure, although proper care should be taken to repair them.

STEP FIVE: DETAIL WORK

- Protect the overlay during the curing period.
 After the material has cured, detail any imprinting imperfections using grinders, chisels or scraping tools prior to sealing or staining.
- · Honor all joints and use a full-depth cut of at least 1.5-inches for all expansion or control joints to minimize reflective cracking.

STEP SIX: CURING

Plastic sheeting can be used to cure INNOTECH STAMPABLE OVERLAY. If curing with plastic, areas of inconsistent color may occur from areas of high moisture, especially when using LIQUID RELEASE - PREMIUM*. Overlay will cure in 24 hours. Cooler temperatures and/or higher humidity will increase the cure time. Do not remove release or seal if the surface is plastic or soft. Light foot traffic in 24 hours, full foot traffic in 48-72 hours, vehicular traffic after 7 days. A full 28 day cure is recommended prior to any freeze-thaw cycling. Please reference the "Product Technical" section in this document for detailed information on surface strength specifications.

STEP SEVEN: STAINS, DYES OR PRE-SEALING

For antiquing, staining and other color treatments such as CHEMICAL STAIN+, REVITALIZE - SOLID COLOR STAIN+, and LIQUID DYE CONCENTRATE+ (Dye Concentrates are for interior applications only), follow the appropriate application guidelines in the respective Technical Bulletins. In general, once the desired finish is achieved, INNOTECH STAMPABLE OVERLAY should be left to cure for 24 hours prior to staining.

STEP EIGHT: PROTECT WITH A CLEAR SEALER

Apply selected sealer by sprayer, brush or roller. Make sure to select sealers best suited for the application, traffic, use, maintenance and exposure. Allow the overlay to cure 24 hours before sealing. Please refer to the "INNOTECH SEALER AND MAINTENANCE PRODUCT GUIDE" to determine the correct sealer for the specific application.

Maintenance

All installations should be maintained on a routine basis with the use of INNOTECH 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.

- All decorative concrete installations should be professionally cleaned and resealed periodically by a qualified floor maintenance contractor in order to maintain a quality appearance.

- Exterior INNOTECH STAMPABLE OVERLAY surfaces should be resealed annually depending on traffic, especially in freeze-thaw locations.
 Refer to the "INNOTECH SEALER AND MAINTENANCE PRODUCT GUIDE" to determine the correct sealer for the specific application.
 For interior applications, apply INNOTECH INTERIOR FLOOR FINISH+ (gloss) or INNOTECH NATURAL BEAUTY+ (satin) as a maintenance topcoat.

Product Limitations

- The substrate temperature should range from 65-80 °F.
 - 1. The material's set time is increased by a hot substrate and can cause the product's working time to decrease while increasing the set-time prematurely. 2. A substrate that is too cool will retard the cure and may cause a blush in some sealers. Never apply STAMPABLE OVERLAY to substrates below 55 °F.
- Keep the unfinished flooring surface clean.
- Do not track dirt, grease or other contaminants onto an unfinished flooring surface (any contaminants could affect the final aesthetics of the finished flooring).
- It is imperative to provide good ventilation during application.
- This product is not designed to bridge cracks, working joints, dynamic cracks or expansion joints. Please reference the "Prior to Application" section in this document for detailed information on cracks and joints

Technical Information

Please reference the corresponding MSDS for complete hazard-related information.

ASTM C 109 (2" x 2" cubes): 4,219 psi Compressive Strength:

Indentation Characteristics: (Steadily Applied Load) MIL-D-134, Paragraph 4.7.4.2.1 (2,000-lbs.on 1" steel ram imposed for 30 min.): 2.26%

MIL-D-3134, Paragraph 4.7.14 (Shear from steel plate after 96 hours): 305 psi Adhesion: Compression Test: Outdoor 50#/1 gallon mix, 7-day cure: 3,300 psi; 28-day cure: 3,900 psi Indoor 50#/1 gallon mix, 7-day cure: 2,800 psi; 28-day cure: 3,900 psi

Water Absorption: MIL-D-3134: 3.41% Tensile Strength: ASTM C 190: 925 psi Flexural Strength: ASTM C 580: 2,415 psi

(Using a Gardner Impact Tester) No chipping, cracking or delamination, and not more than 0.014". Impact Resistance:

Product Shelf Life/Storage

Liquid: INNOTECH STAMPABLE OVERLAY Liquid Primer should be stored and mixed indoors at a temperature range of 65-80 °F (18-26 °C). If the Liquid freezes, discard. Shelf life: 12 months. Powders: INNOTECH STAMPABLE OVERLAY Powders should be stored indoors and away from moisture. Shelf life: 24 months.

Available Packaging and Coverage Information

INNOTECH STAMPABLE OVERLAY Liquid Primer is produced in 1- and 5-gallon pails.

INNOTECH STAMPABLE OVERLAY Uncolored Powder is produced in 50-lb bags of gray or white base. INNOTECH STAMPABLE OVERLAY Pre-Colored Powder is produced in 50-lb bags of colored powder.

Coverage:

Per Bag of Powder

 $\frac{1}{2}$ -inch = 12 s.f. $1/_{a-inch} = 24 \text{ s.f.}$ $3/_{8}$ -inch = 16 s.f. $\frac{5}{8}$ -inch = 10 s.f.

Product Handling

Prior to using INNOTECH STAMPABLE OVERLAY, please reference the corresponding Material Safety Data Sheet to ensure safe handling.

Product Warranty

INNOTECH STAMPABLE OVERLAY 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 INNOTECH 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.

INNOTECH STAMPABLE OVERLAY and other INNOTECH products are for professional use only.

Innotech Decorative Concrete Products is a registered tradename of ChromaSystems LLC, a wholly owned part of the ChromaScape family of companies. For more information, go to www.chromascape.com. @2010 CHROMASYSTEMS, LLC. Printed in U.S.A. 2M 01.10

INNOTECH products can be purchased at:



INNOTECH Decorative Concrete Products 2055 Enterprise Parkway • Twinsburg, OH 44087 Customer Service 877-829-7880 or 330-425-2506 Fax 330-425-2466 www.innotechdcp.com