

**THIN-FINISH™ Overlay is a high strength, cementitious topping material and bond coat designed for thin patching, resurfacing, overlaying, reducing surface defects and texturing stable concrete floors and surfaces.**

**1. DESCRIPTION and USES:**

THIN-FINISH™ Overlay is formulated and engineered to provide a strong, durable interior or exterior finish to existing concrete surfaces.

THIN-FINISH™ Overlay is a pre-packaged, "just add water", overlay material consisting of hybrid redispersible polymers, graded quartz aggregates and white or gray portland cement to create a trowelable, polymer cement overlay material that cures to create a hard, abrasion resistant wear surface.

THIN-FINISH™ Overlay is designed to create durable finishes for concrete thin patching, resurfacing, overlaying, reducing surface defects, texturing stable concrete floors and surfaces or chemical staining of the surface is desired and is used to restore existing concrete floors and surfaces. Typical applications include interior or exterior commercial, industrial and residential concrete surfaces for renovation or new construction.

THIN-FINISH™ Overlay is also used as the base coat to nearly all overlay applications including but not limited to; TEXTURE-PAVE™ as a base coat and as a bond coat. MICRO-FINISH™ as a base coat and level coat.

THIN-FINISH™ Overlay offers many advantages over most overlay materials including better abrasion resistance, higher levels of strength and durability, excellent weather resistance such as resistance to moisture, UV and freeze/thaw cycles and is available in a wide variety of colors and color combinations. It can effectively be applied from 1/32" (0.75 mm) to 1/8" (3 mm) thick with a cured compressive strength exceeding 4,500 psi (31 MPa) after 28 days, allowing heavy commercial traffic without wear or damage.

THIN-FINISH™ Overlay is designed to be extremely easy to mix and install while proving very economical and cost effective. Once the surface has been properly cleaned and prepared, simply add the material to the recommended water volume, mix well and apply. It is designed to give a longer workability time compared to most other materials to ensure proper finishing and attention to detail.

THIN-FINISH™ Overlay can be applied by trowel, broom, neoprene squeegee or spray

with an air supplied hopper gun and can effectively be layered to create additional thickness when needed. Additional benefits as compared to concrete include increased flexural strength which decreases the brittleness of the surface and increased resistance to moisture, for above or below grade applications.

To add stain resistance or to make the finish easy to clean, THIN-FINISH™ Overlay must be initially and periodically sealed with approved and suitable Elite Crete Systems sealers. Additional information is available in the Elite Crete Systems Technical Data TD-414 SEALER OPTIONS.

**2. LIMITATIONS:**

One single coat of THIN-FINISH™ Overlay is never sufficient for any application. If only one coat is applied, the adhesion and abrasion resistance of the finish will fail.

THIN-FINISH™ Overlay is engineered and designed for structurally sound, stable concrete surfaces. Not all concrete surfaces are suitable for the installation of THIN-FINISH™. Those surfaces which are not suitable include; concrete that has not cured for at least 28 days. Concrete with Vapor emission problems. Surfaces which are gypsum based and lightweight concrete. THIN-FINISH™ Overlay surfaces are not intended for use in areas subject to metal wheels, track or rollers.

THIN-FINISH™ Overlay is not intended for use in areas subject to water immersion or water leaks. If installation is desired in areas of harsh chemicals, testing and/or special coatings may be required.

THIN-FINISH™ Overlay is not intended for use as a crack repair product. Existing cracks must be repaired and all existing expansion joints must be honored.

All concrete surfaces must be properly cleaned and prepared. Failure to remove contaminants or existing coating may result in loss of adhesion, delamination and product failure. Any repairs or regrading must be completed prior to the application of the THIN-FINISH™ Overlay application. For repairs or regrading deeper than 1" (25 mm), multiple applications of TEXTURE-PAVE™ may be required. Allow the first application to dry prior to the application of the second mix. Additional information is available in the Elite Crete Systems Product Information PI-301 TEXTURE-PAVE™ Overlay.

To ensure proper product performance and aesthetics, accurately measure recommended water amounts. Increased water amounts will create whitening, surface cracking and decrease adhesion.

Recommended application temperature for THIN-FINISH™ Overlay is between 40° and 90° F (4° and 32° C). Ideal application temperature for THIN-FINISH™ Pre-Mixed Overlay is 70° F (21° C). If the ambient temperature is forecast to drop below 40° F (4° C) within 36 hours after the application of THIN-FINISH™ Overlay must not be installed.

**3. APPLICATION STANDARDS:**

Professional standards and practices, including those published by the American Concrete Institute (ACI), the Portland Cement Association (PCA), and the International Concrete Repair Institute should be understood and followed.

**4. PRODUCT COMPOSITION:**

THIN-FINISH™ Overlay is a precisely formulated and engineered, hybrid polymer modified cementitious mixture designed and manufactured with highly proprietary techniques.

**5. TECHNICAL DATA:**

Compressive, flexural and tensile strengths as well as other performance test data concerning THIN-FINISH™ Overlay is listed in the table below. All properties are typical of those obtained when professionally tested by standard ASTM testing methods.

	PROPERTY	RESULT
1.	Compressive Strength 1 Day 7 Days 28 Days	1350 psi 3750 psi 4800 psi
2.	Flexural Strength 7 Days 28 Days	990 psi 1450 psi
3.	Tensile Strength 7 Days 28 Days	350 psi 750 psi
4.	Abrasion Loss 28 Days	.17%
5.	Density 7 Days 28 Days	1.17 g/cm3 1.89 g/cm3
6.	Shear Bond 7 Days 28 Days	335 psi 575 psi
7.	Cohesive 7 Days 28 Days	52 psi 98 psi
8.	Impact Resistance 7 Days 28 Days	16 inch/lbs. 28 inch lbs.

Different application thickness' and uses were tested for specific applications, but are not represented in the Test Data due to variations in mix design or specific application techniques and uses which changes the test results considerably. Variables include; density, water ratio, polymer ratio, aggregate size, application thickness, aggregate ratio to cement, aggregate composition, application tool/technique, drying temperature, environment, curing temperature & humidity.

The information herein is general information to assist our customers in determining whether our products are suitable for their specific applications. Our products are intended for sale to commercial and industrial customers. We require that customers should inspect and test our products before use to the content and suitability for the applications they intend to use our products for. **Nothing herein shall constitute any warranty expressed or implied, including any warranty of merchantability or fitness for a particular purpose**, nor is any protection from any law or patent to be inferred. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for incidental or consequential damages.

**6. COLOR and COLORING:**

THIN-FINISH™ Overlay is available from stock integrally colored white or gray. If additional integral color is needed, use Portion Control Colorant™ available in 30 base colors designed for use with white base.

The use of ULTRA-STONE™ Stain is recommended for textured finishes to add natural color variations. The use of CHEM-STONE™ Stain is recommended for smooth or less textured finishes to add a mottled, aged look. ULTRA-STONE™ Stain may also be used on top of CHEM-STONE™ Stain to increase the color variations even more. As always, when applying any stain or color, it is highly recommended to experiment to ensure the proper color will be achieved. THIN-FINISH™ may be stained with ULTRA-STONE™ Stain once the surface is firm enough to take foot traffic and has cured 8 to 12 hours. THIN-FINISH™ may be stained with CHEM-STONE™ Stain once the surface has cured 16 to 24 hours. Note: If THIN-FINISH™ has not been allowed to cure 14 days, CHEM-STONE™ may not achieve maximum color intensity.

**7. PACKAGING:**  
THIN-FINISH™ is available from stock in 55 Lb. (25 kg), bags.

**8. SHELF LIFE:**  
Under normal, dry conditions the average shelf life of THIN-FINISH™ is six to nine months from date of purchase. Do not store directly on floors or open to weather. Rotate stock upon receipt and use.

**9. COVERAGE:**  
Under normal conditions THIN-FINISH™ 55 Lb. (25 kg) bag will cover 110 to 180 sq. ft. at a depth of 1/16" (1.5 mm). Note: Coverage will vary depending on depth of fill or variation, surface texture or profile, preparation procedures used, desired surface finish and other conditions.

**10. CAUTIONS:**  
WARNING! IRRITATING TO EYES AND SKIN. DO NOT BREATHE DUST. MAY CAUSE DELAYED LUNG INJURY (SILICOSIS). CONTAINS CEMENT AND SILICA (QUARTZ). Use with adequate ventilation. Wet cement may cause alkali burns. Dust mask (NIOSH/MSHA TC 21C approved), safety goggles and protective gloves are recommended.

FIRST AID: Eyes – DO NOT RUB EYES. Immediately flush thoroughly with plenty of clean water. Skin – Wash thoroughly with soap and water. Inhalation – Move to fresh air. If symptoms persist or develop, or if ingested, seek immediate medical attention. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. Before using or handling, read the Material Safety Data Sheet and Warranty.

**11. JOBSITE SUITABILITY:**  
The application of THIN-FINISH™ requires skill and practice. Aspects such as preparation procedures, ambient and surface temperatures, mixing, installation, finishing and curing techniques, experience

in the use of the material and other factors will effect the long terms performance of the overlay. Select a small section of the job and install a small test area of THIN-FINISH™ to ensure suitability of the substrate.

This test area should be of adequate size to be a true representative. This test area should be installed by the installers who will be installing the actual application and under the same conditions to ensure proper comparison. Once the test area has been installed, the surface should be tested for safety reasons to ensure the surface is of adequate wet and dry slip resistance.

**12. EQUIPMENT and MATERIALS:**  
Protective equipment and clothing in accordance with government regulations, manufacturer instructions and all local, state and federal safety regulations must be used during the preparation and application of any Elite Crete Systems product.

Proper surface preparation is critical for permanent and successful overlay applications. THIN-FINISH™ is typically installed in one or two applications by mean of troweling, screed, spraying or pumping directly onto the prepared surface and "bond coat".

For proper substrate preparation, use wire brushing, grinding, scarifying, shotblasting, sandblasting or other suitable equipment to remove laitance, coatings, curing compounds and other contaminants that interfere with adhesion. After roughening the concrete surface, sweep or vacuum all debris and follow with a thorough cleaning using a high-pressure water washer. Refer to International Concrete Repair Institute (ICRI) Guideline Number 03732 which specifies a Concrete Surface Profile (CSP) between Number 5 and Number 9.

For measuring, a container suitable for accurately measuring various water quantities should be used.

For mixing, a five-gallon bucket and a heavy duty drill with paddle type mixing blade should be used for small jobs and a mortar mixer is recommended for larger projects. Proper mixing can not be achieved mixing by hand or in a wheel barrel.

For spray/splatter applications a drywall type hopper gun powered by a continuous, oil free air compressor is recommended for smaller jobs. The use of a pressure pot type spraying unit is recommended for larger applications.

Other necessary tools include; neoprene squeegee, hand trowel and joint tool.

**13. SURFACE PREPARATION:**  
Before installation a test area must be produced as described in 11. *JOBSITE SUITABILITY*. Concrete must be cured a minimum of 28 days prior to the application of any overlay.

Surrounding areas should be protected from tracking, spills and equipment contact. The

work area should be roped off and closed to traffic.

The most common overlay failure is improper surface preparation. The concrete must be structurally sound and prepared as recommended in the International Concrete Repair Institute (ICRI) Guideline Number 03732, Concrete Surface Profile (CSP) between Number 5 and Number 9, using equipment as described in 12. *EQUIPMENT and MATERIALS*.

Prior to installing THIN-FINISH™ as a "bond coat", all loose material, laitance, coatings, curing compounds, grease, oil, dirt, paint and other contaminants that interfere with adhesion must be completely removed using equipment as described in 12. *EQUIPMENT and MATERIALS*. The cleaning method to be used depends on the condition of the surface. Failure to remove all loose material, laitance, coatings, curing compounds, grease, oil, dirt, paint and other contaminants will result in failure of THIN-FINISH™ as a "bond coat".

The use of detergents, soaps and sweeping compounds is not recommended as the residue will create a film that will interfere with adhesion.

Once all loose material, laitance, coatings, curing compounds, grease, oil, dirt, paint and other contaminants that interfere with adhesion are removed, a mild muratic and water solution is needed to apply a slight "etch" of the surface, kill and bacteria and to adjust the pH of the surface. Carefully pour one part muratic acid into eight parts clean water. Use protective eye and skin equipment. Use a plastic watering container to flood the surface with the acid and water solution and allow to fizz for three to five minutes. Do not allow the solution to dry. If the surface begins to dry, spray with water until the surface can be neutralized.

To neutralize the acid and water solution and adjust the pH, carefully pour one part ammonia into eight parts water. Using a plastic watering container, flood the surface with the ammonia and water solution and allow to sit three to five minutes and rinse thoroughly with water.

**14. MIXING:**  
Weather conditions should be taken into consideration before mixing. Recommended application temperature for THIN-FINISH™ is between 40° and 90° F (4° and 32° C). Ideal application temperature for THIN-FINISH™ is 70° F (21° C). If the ambient temperature is forecast to drop below 40° F (4° C) within 36 hours after the application of THIN-FINISH™, the finish must not be installed.

The volume of water added to the mix must be accurately measured. Overwatering may cause a weakening of overlay surface and surface cracking. Underwatering will decrease workability and adhesion.

It is critical that all components are added in same sequence and thoroughly mixed. Water is first added to the mixer, followed by

the overlay material. If the overlay material is added to the water, clumps may form in the mix and performance will be sacrificed. Mix the overlay material three to four minutes for consistent blending, allow to "false set" for 5 to 15 minutes and re-mix. It may become necessary to add a very small amount of water when re-mixing after the "set". Please note that this is a critical step to the mixing process. Failure to strictly comply with these mixing instructions may result in loss of abrasion and water resistance as well as a loss of adhesion.

**15. INSTALLATION:**  
A. THIN-FINISH™ as a "bond coat" for TEXTURE-PAVE™:

The surface area should be divided into smaller work sections using walls or joints lines depending on the amount of overlay experience the installer has.

As with most cementitious products, existing cracks or joints in the substrate will reflect through the overlay. Joints must be reproduced and cracks must be repaired as best possible during the application process. Any delay in the reproducing of the joints may result in a loss of adhesion along the joint, crack, expanse or edge.

THIN-FINISH™ mix as a "bond coat" must be applied to the cleaned and prepared concrete surface before TEXTURE-PAVE™ is applied. The concrete should be misted wet without puddling water.

Mix the THIN-FINISH™ material with clean cold water to form a smooth consistency similar to pancake batter. Apply the material to the surface with an approved neoprene squeegee or by trowel, without puddling the material. Additional information is available in the Elite Crete Systems Product Information PI-30 TEXTURE-PAVE™.

Care should be taken to ensure the THIN-FINISH™ material will not become dry prior to the application of the TEXTURE-PAVE™ overlay. This wet to wet bond is critical to adhesion and wear. If the "bond coat" dries before the application of overlay, apply an additional "bond coat".

The TEXTURE-PAVE™ overlay material must be applied immediately after mixing is complete. Apply at a thickness of ¼" (6 mm) to up to a maximum of 1" (25 mm) depending on the depth of the THIN-PRINT™ Mat or needed build-up.

If additional buildup is needed, another THIN-FINISH™ "bond coat" will be required prior to the application of the TEXTURE-PAVE™ mix. Additional information is available in the Elite Crete Systems Product Information PI-301 TEXTURE-PAVE™.

B. THIN-FINISH™ as "finish or broom coat":

A dry coat of THIN-FINISH™ must first be applied and surface imperfections must be filled to expectations.

Mix and apply an additional coat of THIN-FINISH™. This coat may be immediately "broomed" or left as a smooth "finish" coat. Brooming to late will result in a loss of broom texture.

If THIN-FINISH™ is to be "broomed", the material must be immediately broomed before the material has a chance to dry.

Use a standard edging tool to detail the sides of the surface once the material has become slightly firm.

C. THIN-FINISH™ as a "splatter texture" finish:

A dry coat of THIN-FINISH™ as a base/skim coat ,must first be applied and surface imperfections must be filled to expectations. This coat will be seen as the grout line color if filament tape or stencils are used. Take this into consideration when choosing color.

The THIN-FINISH™ material will be slightly thicker when used as a splatter texture coat verses a base/skim coat.

**16. DETAILING and SAWCUTTING:**  
Once the THIN-FINISH™ material is just firm enough to take light foot traffic the imperfections along the joints and edges should be detailed and touched up.

Detailing must take place within four to six hours after the application process.

When saw cutting control joints, the sawcutting must be done before cracking occurs but when the surface has reached sufficient strength not to be damaged, a minimum of 24 hours after the process was completed.

THIN-FINISH™ gains strength similar to concrete. The surface can be opened to traffic when it reaches sufficient strength not to be damaged, a minimum of 48 hours for light traffic. A minimum of 3 to 7 days for normal traffic. A full 28 day cure is required before opening to heavy traffic. Protect the curing surface from other construction trades.

**17. STAINING and ANTIQUING:**  
If THIN-FINISH™ is to be stained or antiqued with either ULTRA-STONE™ Stain or CHEM-STONE™ Stain, experimentation is required to produce the proper combination of colors and variations.

THIN-FINISH™ must be firm enough to take foot traffic and cured 8 to 12 hours prior to the application of ULTRA-STONE™ Stain.

THIN-FINISH™ must be firm enough to take foot traffic and cured 16 to 24 hours prior to the application of CHEM-STONE™ Stain. Note: If THIN-FINISH™ has not been allowed to cure 14 days, CHEM-STONE™ may not achieve maximum color intensity.

Additional information is available in the Elite Crete Systems Product Information PI-144 ULTRA-STONE™ Stain and PI-145 CHEM-STONE™ Stain.

The stained or antiqued surface must be protected from all traffic until it is sealed.

**18. SEALING:**  
THIN-FINISH™ Overlays must be sealed, coated or painted for ease of maintenance and to protect the surface, using materials that have demonstrated compatibility. Seal or coat as soon as the surface can be walked on, approximately 16 to 24 hours after the application process was completed. Additional information is available in the Elite Crete Systems Technical Data TD-414 SEALER OPTIONS.

All sealed surfaces should be inspected to verify and approve installation and safety, including wet and dry slip resistance prior to opening the area to traffic.

**19. AVAILABILITY:**  
THIN-FINISH™ is marketed nationwide and internationally, directly to training installers through strategically located authorized distributor and suppliers.

**20. 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.