

PI.303 – PRODUCT INFORMATION: Using MICRO-FINISH™

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MICRO-FINISH™ is a high strength, cementitious filler material designed for thin resurfacing, overlaying, reducing surface defects and texturing stable concrete surfaces with the use of THIN-FINISH™ as a base coat.

1. DESCRIPTION and USES:

MICRO-FINISH™ is formulated and engineered to provide a strong, durable interior finish to existing concrete surfaces.

MICRO-FINISH™ is a pre-packaged, “just add water”, material consisting of hybrid redispersible polymers, graded quartz aggregates, silica flour and white cement to create a trowelable, polymer cement filler material.

MICRO-FINISH™ is designed to create durable finishes for concrete thin patching, resurfacing, overlaying, reducing surface defects and texturing stable concrete surfaces. Typical applications include interior or exterior commercial, industrial and residential concrete surfaces for renovation or new construction.

THIN-FINISH™ must be first used as the base/skim coat prior to all MICRO-FINISH™ overlay applications.

MICRO-FINISH™ offers many advantages over most overlay materials including a smoother finish, accepts reactive chemical stains exceptionally well, higher levels of strength and durability and is available in a wide variety of colors and color combinations.

MICRO-FINISH™ is designed to be extremely easy to mix and install while proving very economical and cost effective. Once the surface has been properly cleaned, prepared and a dry coat or two of THIN-FINISH™ is applied, 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.

MICRO-FINISH™ must be applied by trowel or metal squeegee and can effectively be layered to create improved smoothness when needed.

2. LIMITATIONS:

The use of partial bags is not recommended. Some components may settle during shipping. Use the entire contents of the bag for consistency.

MICRO-FINISH™ is engineered and designed to act as a filler for smoothing the grainy finish created by THIN-FINISH™. MICRO-FINISH™ must not be built up any measurable amount what-so-ever. MICRO-FINISH™ surfaces are not intended for use in areas subject to metal wheels, track or rollers.

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

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

Recommended application temperature for MICRO-FINISH™ is between 40°F and 90°F (4°C and 32°C). Ideal application temperature for THIN-FINISH™ is 70°F (21°C). If the temperature is forecast to drop below 40°F (4°C) within 24 hours after the application of MICRO-FINISH™, do not proceed.

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:

MICRO-FINISH™ 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 MICRO-FINISH™ are contingent on those of THIN-FINISH™.

6. COLOR and COLORING:

MICRO-FINISH™ is available as a white base and can be colored if desired with Portion Control Colorant™, available in 30 base colors designed for use with white base. MICRO-FINISH™ can also be colored with reactive chemical stains.

7. PACKAGING:

MICRO-FINISH™ is available from stock in 30 Lb. bags.

8. SHELF LIFE:

Under dry conditions the average shelf life of MICRO-FINISH™ is 12 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 MICRO-FINISH™ 30 lb. bag will cover 250 to 300 sq. ft. 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 MICRO-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 term 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. 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 properly prepared depending on the condition of the substrate and the application being applied.

Prior to installing THIN-FINISH™ and MICRO-FINISH™ all loose material, laitance, coatings, curing compounds, sealers, grease, oil, dirt, paint and other contaminants that interfere with adhesion must be completely removed. The cleaning method to be used depends on the condition of the surface. Failure to prepare the substrate may result in failure of THIN-FINISH™ and MICRO-FINISH™.

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

Once the substrate is properly prepared, 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 1 part muratic acid into 8 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 react for 2 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 1 part ammonia into 8 parts water. Using a plastic watering container, flood the surface with the ammonia and water solution and rinse with water.

13. MIXING:

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

Add 8.5 to 9 quarts of clean cool water per 30 LB. bag of MICRO-FINISH™.

Add water to the mixing container first, followed by the MICRO-FINISH™ material. If the overlay material is added to the water, clumps may form in the mix and performance will be sacrificed. Mix the material for 2 full minutes for consistent blending, allow to "false set" for 5 minutes and re-mix. It may become necessary to add a very small amount of water when re-mixing after the "false 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.

If integral color is desired, add the PORTION CONTROL COLORANT™ to the water before adding the MICRO-FINISH™ material to the mixing container.

14. INSTALLATION:

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.

15. DETAILING:

MICRO-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 12 hours for light traffic. A minimum of 5 to 7 days for normal traffic. A 7 to 10 day cure is required before opening to heavy foot traffic or vehicular traffic. Protect the curing surface from other construction trades.

16. SEALING:

MICRO-FINISH™ must be sealed or coated for ease of maintenance and to protect the surface, using materials that have demonstrated compatibility. 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.

17. AVAILABILITY:

MICRO-FINISH™ is marketed nationwide and internationally, directly to training installers through authorized distributors.

18. 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.