

PI.231 – PRODUCT INFORMATION: REFLECTOR™ Enhancer Flooring System

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REFLECTOR™ Enhancer is an easy to use, non-mica, non-metallic based powdered pigment that is designed to be added to clear coatings or sealers to create custom and unique coloring effects.

Although there are many clear coatings or sealers that REFLECTOR™ Enhancer can be added to, this document is outlining the most popular application of REFLECTOR™ Enhancer being used in E100-PT1™ or E100-UV1™.

Unlike full mica, pearls or metallic based pigments, REFLECTOR™ Enhancer is not dissolvable in waterborne or solve borne liquid but rather remains as a complete solid allowing for unique and dramatic “re-touching” effects that distort the application pattern. This “re-touching” creates three dimensional colors and patterns that cannot be duplicated with other coloring or staining methods.

1. DESCRIPTION and USES:

REFLECTOR™ Enhancer used in E100-PT1™ or E100-UV1™ is primarily used for creating custom commercial, residential and retail flooring where a beautiful yet durable, high traffic floor is required.

E100-PT1™ or E100-UV1™ provides a level of strength for a floor that is normally only associated with plain industrial epoxy flooring. Yet, REFLECTOR™ Enhancer adds the customer color and flair to match surrounding colors and architectural design themes.

It is critical to adequately mix the REFLECTOR™ Enhancer to eliminate “fish eyeing”. Once the REFLECTOR™ Enhancer is added, it is recommended to mix for a minimum of 2 minutes. Mixing should take place with a high speed drill with mixing paddle. Stirring or mixing with a stick is never sufficient.

2. LIMITATIONS:

E100-PT1™ or E100-UV1™ must only be used on interior concrete that is well drained and is not subject to hydrostatic pressure. Alkali stains may form at edges, cracks and expansion joints.

As a safeguard against substrate vapor emission problems, first apply a coat of E100-VB5™ Vapor Barrier Epoxy to the concrete floor.

For added, optional color effect, apply a second coat of E100-VB5™ once the first coat is dry and broadcast with 40 sieve silica sand to rejection. The sanded finish will assist in creating addition color variation in the REFLECTOR™ Enhancer.

E100-PT1™ or E100-UV1™ Series is not recommended for concrete subject to continuous water submersion or direct UV.

E100-PT1™ or E100-UV1™ Series must be allowed to dry completely prior to being exposed to water.

Always use clean mixing containers, mixing tools and application tools to ensure there is no contamination which will result in “fish eyeing” or coating failure.

Due to the fast curing and achieved hardness of E100-PT1™ or E100-UV1™, additional coats may not adhere properly without first sanding and solvent wiping the first coat. This lack of adhesion may result in “fish eyeing” or complete coating failure if not properly addressed.

For additional abrasion and chemical resistance, apply AUS-V™ with the AGG additive.

3. CHEMICAL COMPOSITION:

REFLECTOR™ Enhancer is a non-mica, non-metallic, solid powdered pigment available in 20 standard colors.

4. APPLICABLE STANDARDS:

Although REFLECTOR™ Enhancer is non hazardous, it is always recommended to use OSHA approved dust masks when exposed to the powder.

5. PACKAGING:

REFLECTOR™ Enhancer is available in 2 ounce sample jars and 32 fluid ounce jars.

6. COVERAGE:

Typical application rates vary from ½ to ¾ of an 8 ounce jar per gallon of E100-PT1™ or E100-UV1™.

7. SHELF LIFE:

When stored in temperature controlled areas, shelf life is one year for unopened containers. It is recommended to rotate stock as formula improvements may be made when technology becomes available.

8. CAUTIONS:

Although REFLECTOR™ Enhancer, E100-PT1™ or E100-UV1™ and E100-VB5™ have little or no odor and carrier zero VOC, These product should only be used with adequate ventilation. Avoid contact with eyes and skin. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. Ensure fresh air entry during application. If you experience watering eyes, headaches, or dizziness or if air monitoring demonstrates vapor levels are above applicable limits, wear a properly fitted respirator (NIOSH/MSHA TC 23C approved) during and after application. Follow respirator manufacturer's directions for use.

Read the Material Safety Data sheets.

9. APPLICATION EQUIPMENT:

Protective gear should be worn when using equipment and materials during preparation and installation.

A notched squeegee, high quality adhesives type roller or mohair adhesives applicator is recommended for most applications of REFLECTOR Enhancer™ and E100-PT1™ or E100-UV1™ to apply an even coat.

10. APPLICATION:

Cover surrounding areas, walls, equipment, furniture and adjacent surfaces with masking to protect from spills and tracking. The entire work area should be roped off.

Grind the concrete substrate with hand grinder or walk behind grinder. In many cases a walk behind sander with aggressive sanding discs will suffice. The objective is to mechanically abrade the surface of the concrete to remove curing agents, paint, debris, stains and laitance. It is not recommended to wet prep the surface such as pressure washing or acid etching as this will delay the start of the project while the moisture evaporates the concrete.

Test substrate for cleanliness and adhesion - Before placement and test the cleaned concrete substrate for soundness and cleanliness with a Tensile Pull Test ACI 503 R (min.200 psi). 100% concrete must fail to pass either test without bond line failure.

Mixing - E100-VB5™ must be properly mixed prior to application. Failure to mix properly may result in uneven sealing and allow vapor emission throughout the finish. Pour Component “B” and component “A” into a clean mixing container and mix for at least 60 seconds (until one even

color develops) with a low speed paddle attached to a drill (400-600rpm). Once the two components are mixed, add 2 pints of clean potable water per mixed gallon. Mix again for 60 seconds. The mixed product is ready for immediate placement.

E100-VB5™ is applied at a rate of 250 to 300 sq. ft. and applied with a high quality adhesives roller. Be sure to pre-measure the project to gain a keen understanding of how far each batch will cover. E100-VB5™ will be white in color during the mixing and wet application stage but will dry to a clear finish with a tint of green. This first coat will be ready to recoat in 4 to 5 hours depending on the environment conditions. Although the surface will feel a slight bit tacky, ensure that the white areas are all clear before proceeding.

Repeat the mixing and application instruction for the second coat. Broadcast 40 sieve, clean silica sand to the surface evenly and to the point of rejection. Allow this to cure 5 to 6 hours. Using a stiff bristled broom and a shop vacuum, remove all loose and semi loose sand particles from the surface. Take caution that all loose sand must be removed.

Mixing - E100-PT1™ or E100-UV1™ must be properly mixed prior to application. Failure to mix properly may result in uneven sealing and allow vapor emission throughout the finish. Add the desired REFLECTOR™ Enhancer color and amount to a clean mixing container and pour Component "B" and component "A" into the clean mixing container and mix for at least 60 seconds (until one even color develops) with a variable speed paddle attached to a drill (400-600rpm). The mixed product is ready for immediate placement.

Application target rate for the E100-PT1™ or E100-UV1™ with REFLECTOR™ Enhancer is 60 to 80 sq. ft. per gallon although coverage's ranging from 50 to 11 sq. ft. per gallon can be achieved.

1. Pour the mixed E100-PT1™ or E100-UV1™ and REFLECTOR™ Enhancer onto the floor and spread evenly over the surface.
2. Using an adhesive roller or notched squeegee, begin to spread the material across the floor. Be sure to monitor thickness and target coverage as thin areas will look different than other areas.
3. Leave a wet film of epoxy on the surface of the concrete after rolling.
4. Inspect all areas to ensure that the concrete has been coated.
5. E100-PT1™ or E100-UV1™ must be applied evenly while maintaining a wet edge and overlapping must be controlled.
6. The use of a heat gun is recommended to remove any air bubbles that form as a result of the E100-PT1™ or E100-UV1™ finding voids on the broadcasted sand.

Curing -

1. Allow the epoxy to gel and cure until tack free.
2. Carefully inspect the entire area to ensure that the E100-PT1™ or E100-UV1™ film is solid without film break or concrete surface protrusions.

Once the surface is acceptable apply AUS-V™ with the AGG additive to increase abrasion and stain resistance.

11. CAUTION:

E100-PT1™, E100-UV1™ and E100-VB5™:

Component "A" - Irritant

Contains epoxy resins. Prolonged contact with skin may cause irritation. Avoid contact with eyes.

Component "B" - Corrosive

Contains aliphatic and cycloaliphatic amines. Contact with skin may cause severe burns. Avoid eye contact. Product is a strong sensitizer.

Important Information -

Use of safety goggles, chemical-resistant gloves, adequate ventilation and NIOSH/MSHA approved respirator is recommended.

12. CLEAN UP:

In case of spills wear suitable protective equipment, contain spill, and collect with absorbent material, place in suitable container. Ventilate area. Avoid contact. Dispose according to applicable local, state, and federal regulations.

13. FIRST AID:

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. For respiratory problems, remove person to fresh air. Contact Physician Immediately. Wash clothing before re-use.

14. PRODUCT AVAILABILITY:

REFLECTOR™ Enhancer, E100-PT1™, E100-UV1™, E100-VB5™ and AUS-V™ are marketed nationwide and internationally, directly to trained installers through strategically located authorized distributor and suppliers.

15. PRODUCT COST:

- E100-VB5™ first coat = \$0.21 to \$0.24 per sq. ft.
- E100-VB5™ second coat w/ sand (optional) = \$0.21 to \$0.24 per sq. ft.
- REFLECTOR™ Enhancer = \$0.28 to \$0.34 per sq. ft.
- E100-PT1™ or E100-UV1™ = \$0.55 to \$0.63 per sq. ft.
- AUS-V™ = \$0.22 to \$0.25 per sq. ft.

16. OTHER SEALER OPTIONS:

Additional information is available in the Elite Crete Systems Technical Data TD-414 Protective Sealer and Coating Options.

17. 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.