

## PI.221 – PRODUCT INFORMATION: Using E100-UV1™ Clear Epoxy

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E100-UV1™ Clear Epoxy is a 100% solids, two component, premium quality, durable, clear coating for protecting interior concrete, polymer modified concrete overlays, stained concrete, colored concrete and concrete floors.

### 1. DESCRIPTION and USES:

E100-UV1™ is engineered and formulated as a slightly thicker epoxy compared to E100-PT1™ and is designed for sealing and protecting new, old, interior concrete, and polymer modified concrete overlays where a very durable finish is desired.

E100-UV1™ is a 100% solids, two component, premium, clear coating with nearly no odor during or after application and virtually no VOC.

E100-UV1™ protects and reduces staining from materials such as oil, grease, food spills, many chemicals and wear by producing a low maintenance, abrasion resistant film.

E100-UV1™ is excellent for protecting interior concrete floors, concrete which has been coated with E100-PT4™ Pigmented Epoxy, E100-VB5™ or polymer modified concrete overlays such as TEXTURE-PAVE™, THIN-FINISH™ or MICRO-FINISH™ Overlays.

E100-UV1™ is highly effective when used over concrete or polymer modified concrete overlays which have been colored with CHEM-STONE™ Reactive Stain, HYDRA-STONE™ Dye Stain or ULTRA-STONE Antiquing Stain, which produce uneven, variegated and translucent coloring similar to that of natural stone. E100-PT1™ enhances the appearance as well as protects the surface from normal use.

E100-UV1™ should be applied evenly. When applying E100-UV1™ to surfaces with little or no texture, a slip resistant additive such as aluminum oxide, glass beads or silicon carbide chips may be needed to increase skid resistance.

E100-UV1™ is a recommended carrier for REFLECTOR™ Enhancer. 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-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.

If the substrate has vapor emission problems or potential, or if the concrete does not have a suitable vapor barrier, E100-VB5™ Vapor Barrier Epoxy should be applied.

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

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 achieved hardness of 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.

E100-UV1™ is a high quality coating and may require occasional maintenance and re-application to maintain premium performance.

For additional abrasion and chemical resistance, apply two coats of PROTEC-ALL™.

### 3. CHEMICAL COMPOSITION:

E100-UV1™ is a 100% solid epoxy resin solution of aliphatic and cycloaliphatic amines. Solids reduction is not recommended.

### 4. APPLICABLE STANDARDS:

E100-UV1™ complies with all applicable air quality management regulations including those restricting VOC content to less than 150 g/L.

### 5. PACKAGING:

E100-UV1™ is available from stock in 1.5, 3, 15 and 150 gallon kits.

### 6. COVERAGE:

Typical application rates vary from 100 to 125 sq. ft. per gallon as a clear coating and 70 to 90 sq. ft. per gallon when used with REFLECTOR™ Enhancer. Coverage will also vary depending on method of application and the porosity of the surface. Although one coat is common, user must determine application needs.

### 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 E100-UV1™ has little or no odor and carries a very low VOC, E100-UV1™ 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 Sheet – E100-UV1™ for additional information.

### 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 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.

Test substrate for cleanliness and adhesion - Before placement of the E100-UV1™, 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.

Test Concrete for Vapor Emission –

1. It is recommended that a vapor transmission test(s) be completed before accepting any project.
2. To obtain useful data the concrete must be cleaned in the same manner as it is planned for the complete project.

3. Consult with an Elite Crete Systems Trained Technician for advice on testing and solving vapor transmission problems.

**Preconditioning Epoxy Resins** - When temperatures drop epoxy resins typically thicken and becomes harder to flow or to spread. When the temperatures are warmer they typically become thinner. To improve the product flow-ability maintain temperature at about 20°C (73°F) before mixing. When the substrate temperature is 10°C (50°F) or lower preheat each epoxy component to 90°F before mixing. Caution the pot life will be reduced by about 50%.

**Mixing** - 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. Pre-mix Component "A", then pour Component "B" and component "A" into a clear 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). The mixed product is ready for immediate placement.

**Laying the Product** - Application must be made at the coverage rates recommended in section 6. **COVERAGE**, using the equipment and methods described. E100-UV1™ should be applied on a dry day when the surface and ambient temperatures are between 40° and 90° F and will not fall below 32° within the next 6 to 8 hours. Do not apply E100-UV1™, rainy to extremely humid weather conditions. On hot, dry days, application should be made during the cooler part of the day and when the surface is cool.

1. Pour the mixed E100-UV1™ onto the floor and spread evenly over the surface.
2. Back roll the wet epoxy into the surface of the concrete with the roller. Work the material into the concrete by pressing down onto the roller with extra pressure.
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 by the epoxy.
5. E100-UV1™ must be applied evenly while maintaining a wet edge and overlapping must be controlled.

**Curing** -

1. Allow the epoxy to gel and cure until tack free.
2. Carefully inspect the entire area to ensure that the E100-UV1™ film is solid without film break or concrete surface protrusions.
3. If film break or protrusion(s) occur reapply E100-UV1™.

**11. CAUTION:**

**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:**

E100-UV1™ is marketed nationwide and internationally, directly to trained installers through strategically located authorized distributor and suppliers.

**15. PRODUCT COST:**

At an application rate of 100 to 125 sq. ft. per gallon, the material cost per coat is approximately \$0.58 to \$0.73 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.