

Gemstone Diamond Deck™ (Light)

Colored-quartz-filled cementitious decorative coating.

DESCRIPTION:

Gemstone Diamond Deck™ coating is a three-component polymer-modified cementitious coating. It is used to protect and decorate concrete, mortar, and masonry. It should be used only as a topcoat over Gemstone Base Flex.

RECOMMENDED FOR:

- < A topcoat to Gemstone Base Flex.
- < Protection and Decoration of Structures.
- < Providing a uniform color to pool decks, walkways, balconies, patios and plaza decks.

FEATURES / BENEFITS:

- < Preblended colored quartz mixture in pail.
- < Variety of designs and patterns using taped patterns, stencils and colored quartz.
- < Ensures color consistency.
- < Forms a protective surface that shields concrete from environmental contaminants.

PACKAGING / ESTIMATING:

Part A, liquid polymer: 5-gallon (18.9 L) pail
Part B, light powder: 32 lb. (14.6 kg) multi-wall bags
Part C, light colored quartz blend: 18 lb. (8.2 kg) pail

PERFORMANCE DATA:

Mix Ratio: lb to gal (kg to L) 50 to 1.25
Part B and Part C (Dry) to Part A (Resin) (22.7 to 5.7)
Approximate; premeasured

Working Time: 30 min. at 70° F

Recoat Time: 2 hours

Elcometer Adhesion: 100 % substrate failure
(ASTM D 4541)

Thermal Compatibility: 5 Cycles, no delamination
(ASTM C 884)

Ultraviolet Resistance: No yellowing after 1000 cycles
(ASTM C 882)

Freeze/thaw resistance: 85% RDM, 28 day, 300 cycles, composite
(ASTM C 666-A)

Scaling Resistance: 50 cycles, no scaling
(ASTM C 672)

Abrasion Resistance: 28-day; Taber CS-10 Wheel
Weight loss %
3,000 cycles 0.003
6,000 cycles 0.005

SURFACE PREPARATION:

Perform surface preparation in compliance with ICRT Technical Guideline No. 03732 “Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays.”

The surface should be roughened by mechanical methods such as sandblasting, water blasting, shotblasting or other suitable means. Do not use a method of surface prep that will fracture the concrete. Verify the absence of microcracking or bruising in accordance with ICRI Guideline No. 03732 (profile of CSP 2-3).

Areas deeper than 1/8 in. (3 mm) should be repaired prior to the application of the coating. Any cracks in the substrate must be repaired before application; if they are not properly repaired, they will reflect through it. An alternative to crack repair is to strategically work the crack into the design (e.g., use the cracks to enhance a stone pattern). Contact a local Gemstone representative for information on repair products.

Before the application of Gemstone Base Flex, the surface may need to be dampened with Gem Acrylic Resin. Spray or roll Gem Acrylic Resin at the rate of approx. 300 to 400 square feet per gallon. If Gemstone Base Flex is not applied within 24 hours, re-apply Gem Acrylic Resin.

Protect Areas surrounding the installation site (walls, doors, plants). Using paper or elastic, cover wall to at least 18” (455 mm) above the prepared surface and tape securely.

Honor any expansion and control joint, taping over them. If they are not taped but coated over, they must be recut after the coating application is completed (before application of sealer). Otherwise, the coating will crack when the substrate moves.

MIXING:

The recommended mix ratio is 1.0 – 1.5 gallons of Part A per 50 lb UNIT (dry mix) of 40 lb bag of Part B (light color powder) and 10 lb pail of Part C (light color quartz) OR, 32 lb bag of Part B and 18 lb Pail of Part C.

To obtain additional working time, add Gem Retardant and keep the Gemstone Diamond Deck™ coating bags in a shaded area before mixing.

Mix Mechanically with heavy duty drill (400 – 600 rpm) and a Jiffy-style paddle with a mud blade. An appropriately sized mortar mixer may also be used. Pour approximately 80% of Part A into the mixing container. Slowly add Part B and Part C during the first 30 seconds of mixing

After 1 minute of mixing, stop and scrape the sides of the container, then restart mixing. Continue mixing until a homogeneous and lump-free mixture is obtained. Total mix time should be a minimum of 3 minutes from the time Part B and Part C were added, and a maximum of 4 minutes. Depending on Application, add remaining part A as required for proper consistency.

Important: Part A is specifically formulated for use with Part B and Part C. DO NOT use other liquid polymers. Only mix Part A with Part B and Part C.

APPLICATION:

Gemstone Diamond Deck™ coating should only be applied as a topcoat by means of spray equipment over surfaces that have already had Gemstone Base Flex applied. For detailed instructions on these products, please refer to their respective product bulletins.

If a decorative pattern is desired, wait at least two hours, until Gemstone Base Flex has Sufficiently hardened, before applying either tape or stencils to the surface.

Tape and honor all moving joints.

Gemstone Diamond Deck™ can then be applied as a topcoat through spray equipment. When spraying, use a hopper gun, or Grayco texture sprayer, which are commonly used in plastering. Box all material for uniform color and consistency.

When using spray equipment, have the same person perform all the spraying operations to maintain same form and consistency. Always keep the spray gun moving to protect against unwanted buildup of material. Hold it approximately 2 – 3 ft (.6 - .9 m) from the surface. When using non-adhesive stencils, hold the spray gun perpendicular to the ground (straight down), not at an angle; this helps keep material from being sprayed beneath the non-adhesive stencil.

After the topcoat has been applied and the Gemstone Diamond Deck™ coating begins to set, knock down the surface using a good pool trowel. A swivel trowel bracket can be used to create a walking trowel for large jobs (Kraft Supply Tool ID #CC658). This allows the colored quartz to reflect through the surface.

Remove tape or stencils shortly after the final coat or finish is done. Do not wait until the surface has totally hardened before removing the tape or stencils.

After the surface has sufficiently hardened, broom and blow it off with air pressure before sealing. If the joints are not honored, the coating will crack when the substrate moves.

Important: Apply only as much of the Gemstone Diamond Deck™

coating that can be finished in one day, including sealer. Recommend stopping at inconspicuous area and easier to blend/restart the following day. Do not apply if coating will encounter moisture within 24 hours of the coating application or 16 hours of the sealer application.

Sealing:

After the final coat is dry to the touch and can no longer be marred, the coating must be sealed with either Gemstone G-100 clear sealer, CS-388 sealer or Acryseal HS.

Refer to the appropriate product data sheet for coverage rates.

Reseal the coating a minimum of every 2 years for best performance.

Clean Up:

Clean all tools with water immediately after use. Cured material must be removed mechanically.

LIMITATIONS:

- < Do not apply coating when rain is expected.
- < Maximum application thickness for Gemstone Diamond Deck™ coating is 1/8” (3 mm).
- < Must be mixed to uniform consistency without lumps. 3 to 4 minutes.
- < Do not use more than the recommended amount of Part A.
- < Recommended ambient and substrate temperature range at the time of application is 50° to 90° F. (10° to 32° C).
- < Do not use solvents to clean this system.
- < Coverage will depend on texture and condition of substrate and method of application. Install a controlled test area to determine the total amount of material needed given jobsite conditions.
- < Proper Application is the responsibility of the user. Field visits by Gemstone personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.
- < For best results, only use Ultra Sealant by Master Builders for cant beads and control joints.
- < Make Certain the most current version of the product data sheet and SDS are being used; call Customer Service (1-800-969-1998) to verify the most current versions.