

# RESINYTE™ “CQ” SYSTEM

## “Colored Quartz” Broadcast Epoxy Flooring System 1/16” to 1/8”

### **MATERIALS**

1. RS-Vapor Prime
2. RS-Membrane \*
3. RS- Epoxy 100 (Clear)
4. RS- Epoxy 150 (Pigmented)
5. RS-Color Vial
6. RS-Colored Quartz
7. RS-Urethane 100/150 \*

\*See recommendations

### **UNITS OF MEASUREMENT**

Product Name	Kit Sizes		Coverage
			Rate* Per Gallon
RS-Vapor Prime	2.5 Gallon	25 Gallon	225 Sq. Ft.
RS-Membrane	4 Gallon	N/A	80 Sq. Ft.
RS-Epoxy 100	3 Gallon	15 Gallon	150 Sq. Ft.
RS-Color Vial “E”	1 Quart	N/A	N/A
RS-Colored Quartz	50 lb. Bag		100 Sq. Ft.
RS-Urethane 100	1.5 Gallon	15 Gallon	225 Sq. Ft.
RS-Urethane 150	1.5 Gallon	15 Gallon	225 Sq. Ft.

\*Coverage rates will vary. The above is estimated.

### **TOOLS AND SUPPLIES**

1. Electric low speed drill – 1/2”-3/8” with mixing blade
2. Extension cord – grounded
3. Clean 5 gallon plastic containers
4. Electric blower
5. Electric floor grinder with dust muzzle attachment
6. Industrial vacuum
7. Metal floor scraper
8. Utility knife
9. Scissors
10. Masking tape
11. Small paint brushes
12. Paint rollers – 1/8” short nap & 3/8” medium nap
13. Semi-stiff broom
14. Dust mask
15. Protective eye wear
16. Metal spiked shoes
17. Rubber gloves
18. Floor squeegee – notched & flat
19. Rags and cleaning solvent

### **I. SUBSTRATE INSPECTION/PREPARATION**

#### **A. General**

1. The Resinyte “CQ” Flooring System may be applied over interior structurally sound, code

compliant, cured, and profiled concrete substrates. All spalled, severely cracked and decomposing concrete shall be removed and replaced.

2. All inspections, as required by local building authorities, shall be the responsibility of the contractor, owner, and/or their agent.
3. Curing of concrete shall be 28 days before any Pli-Dek Systems, Inc. coating shall be applied to the surface. If any other product, other than water cure is used, the general contractor, and/or the owner, must notify Pli-Dek Systems, Inc. in writing.
4. All concrete substrates not poured over an effective vapor barrier are subject to possible moisture vapor transmissions and related high levels of alkalinity that may lead to adverse effects of the coating. It is the general contractors/owners responsibility to ensure proper vapor barriers are in place. If conditions and or level of vapor transmission are unknown, Pli-Dek Systems, Inc. recommends that the owner/general contractor hire a third party to conduct moisture testing in accordance with ASTM F 18907 or ASTM E1907. If the moisture vapor emission rating exceeds 3 pounds but is less than 10 pounds per 1,000 sq. ft per 24 hour period. Apply RS-Vapor Prime prior to application of the flooring system. If the MVT exceeds 10 lbs. per 1,000 sq. ft. in a 24 hour period contact Pli-Dek Systems, Inc. prior for written consultation.
5. Concrete areas that require drainage should be positively sloped towards drains as per the code. A minimum of 1/8” to 1/4” per linear foot is recommended.

#### **B. Preparation**

1. All concrete surfaces must be cleaned to remove all contaminates, grease, oil, dust, paint, sealers, efflorescence, curing compounds, etc. that may impair adhesion. The entire surface must be properly profiled by shot blasting or mechanical scarifying to achieve a 5 mil profile (feels like 30 grit sandpaper).
2. Ensure preparation procedures comply with local building and environmental regulations.

3. Fill in all minor nicks, ruts, and cracks using Resinyte Repair Compound. All cracks are to be treated after the primer application. Pli-Dek Systems is not responsible for the integrity of the substrate, thus Pli-Dek Systems, Inc. does not warrant the crack/repair treatment process. Imperfections in the existing substrate may affect the finished surface. \*\*Contact Pli-Dek Systems, Inc. for details.
4. Ensure that working conditions are conducive of proper application. The area must provide a stable and dry working environment.

## **II. MIXING INSTRUCTIONS**

### **A. RS-Vapor Prime, RS-Epoxy 100/150, RS-Urethane 100/150**

1. Pre-mix each component separately. Mix Part A with Part B, into a clean container and mix thoroughly with a low speed (400-600 rpm) drill motor for 3 minutes. Use care not to allow the entrapment of air into the mixture. Make sure to scrape the sides and bottom of the container during mixing. Mix only the amount of material that can be used within the pot life.
2. If a color pack is utilized ensure to completely empty the contents of component A and the RS-Color Vial into a clean mixing container, care must be taken to ensure all material is scraped from the sides, bottom, and mix at a low speed for approximately two minutes. Then add all contents of component B, scraping the sides, bottom, and mix for an addition minute at a low speed.
3. The "pot life" of the mixed epoxy will vary according to temperatures, mass, and mixing duration. Ensure an adequate work force is present to accommodate each batch mix. For large areas it is recommended to box mix the colored resins to ensure color consistency. Care must be taken as to no entrap air into the mixture.

## **III. APPLICATION**

### **A. General Application**

1. Prime the surface with RS-Vapor Prime with a 3/32" notched squeegee and back roll with a 3/8" non-shedding nap roller. Application rate is approximately 225 sq. ft per gallon depending on substrate porosity. Allow to cure to for a minimum of 12 hours prior to application of subsequent applications. Do not exceed 24 hours between coats.

2. If waterproofing is required apply the RS-Membrane with a squeegee at a rate of approximately 80 sq. ft. per gallon. Consult Pli-Dek Systems, Inc. regarding the use of the optional reinforcement fabric.
3. After mixing the RS-Epoxy 150 in accordance with section II, immediately apply the RS-Epoxy 150 at a rate of 150-200 sq. ft. per gallon using a notched squeegee and back rolling with a 3/8" non-shedding nap roller. Perimeter to be cut in prior with a paintbrush. \*A notched trowel or squeegee will help regulate the thickness and a porcupine roller will help to release trapped air and minimize bubbles.
4. Prior to cure of the RS-Epoxy 150, broadcast the desired RS-Colored Quartz into the wet/uncured epoxy until refusal. During production, leave an approximate 1' perimeter of wet epoxy (without aggregate broadcasted) so that the installer can always ensure a "wet edge". Care must be taken when broadcasting the RS-Colored Quartz as to ensure the RS-Colored Quartz drops vertically on the surface and the entire area is completely covered with quartz as to achieve a "dry" look. While walking on the uncured epoxy wear spiked or golf shoes and ensure that the areas that have received the broadcast are not walked on. The net coverage rate of the Quartz is approximately .5 pounds per sq. ft. ALL COLOR QUARTZ SHOULD BE BOX MIXED PRIOR TO APPLICATION.
5. If a single color quartz system is desired proceed to step #7.
6. If a double broadcast is desired, mix the RS-Epoxy 100 in accordance with section II and apply over the previous cured RS-Colored Quartz coat at a rate of 120 sq. ft. per gallon using a notched squeegee and back rolling with a 3/8" non-shedding nap roller; perimeter to be cut in prior with paintbrush. Proceed with the RS-Colored Quartz broadcast as described in step #4.
7. After at least twelve hours of dry time, remove the excess quartz and lightly scrap the surface as to ensure a uniform surface. Vacuum the entire surface thoroughly.
8. After mixing the RS-Epoxy 100 in accordance with section II, immediately apply the RS-Epoxy 100 at an approximate rate of 120 sq. ft. per gallon using a notched squeegee and back rolling with a 3/8" non-shedding nap roller; perimeter to be cut in prior with paintbrush. Additional coats may be applied if a smoother finish is desired.

Note: The above step can be applied pigmented if so desired.

9. If it is desired to limit yellowing, lightly abrade the surface with a sanding screen and apply the RS-Urethane 100/150 over cured RS-Epoxy 100 at a rate of approximately 225-275 sq. ft. per gallon with squeegee and back rolled with a 1/4" non-shedding nap roller.

## B. Clean Up

1. Uncured material can be removed with a solvent. Cured material can only be removed mechanically, care must be taken.

## C. Limitations

1. Product is to be applied by an approved applicator listed with Pli-Dek Systems. Care must be taken during application; proper protective clothing, eyewear, and respirators should be used at all times.
2. Please note that the Resinyte "CQ" System is designed for interior concrete use only and the product is not UV stable and will cause yellowing/ adverse effects. Consult Pli-Dek Systems, Inc. for specific recommendations. Ensure that all control/expansion joints are honored in the application process.
3. The ambient air temperature should be no less than 45°F and not exceed 100°F. Additionally, the relative humidity should not exceed 85%rh. The substrate temperature should not be below 55°F and should not exceed 90°F. These conditions should remain so for at least 24 hours.
4. Care must be taken to ensure that the product is applied in a uniform fashion; the products should not be allowed to puddle.
5. Minimum re-coat time between coats is 12 – 24 hours.
6. The referenced coverage rates on the products are estimated, actual coverage rates will vary due to preferred application method, substrate porosity, job conditions, etc.
7. This document works in conjunction with the Resinyte "CQ" Specification, RS-CQ-172.

## D. Slip and Fall Precautions

In general, the more non-skid additive added to the finished surface the greater the coefficient of friction and corresponding skid resistance thus the more

difficult to clean. The smoother the finished surface the easier the surface is to clean but there is a loss of skid resistance properties. It is the general contractor/owners responsibility to approve the appropriate level of skid resistance, safety standards and cleanability based on submitted sampling of the finished product. Pli-Dek Systems, Inc. recommends the use of angular slip-resistant aggregates in all coatings. Pli-Dek Systems, Inc or its sales agents will not be responsible for injury incurred in a slip and fall accident. Please consult local building codes for the current coefficient of friction requirement.

### Disclaimer

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Pli-Dek products as of the date of publication of this document and is presented in good faith. Pli-Dek Systems, Inc. assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To insure that you are using the latest, most complete information, contact Pli-Dek Systems, Inc., at:

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\*The Trained Applicator indicates certain employees of the company have been instructed in the proper application of Pli-Dek products and have received copies of the Pli-Dek Application Instructions and Specifications. The Trained Contractor Program is not an apprenticeship. Each trained contractor is an independent company and bears responsibility for its own workmanship. Pli-Dek Systems, Inc. assumes no liability for the workmanship of a trained contractor.