

# Application Guideline - CompositCoat™ Floor Finish System

**Zirconia® Components:** CeramycGuard™ ceramic polymer basecoat  
CrossLink VB™ adhesion promoter  
CompositCoat XD™ urethane floor finish

## Technical Support:

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## GENERAL GUIDELINES

CompositCoat™ requires specific substrate and ambient conditions for application. To ensure that proper temperature and humidity range use a HOBO™ MX1101 or similar temperature and relative humidity measuring and logging instrument.

### Necessary Temperature & Humidity Conditions

Temperature	Relative Humidity	Initial Cure	Full Cure
> 55°F	> 45%	24 Hours	7 Days
> 68°F	> 45%	24 Hours	7 Days
> 75°F	> 35%	24 Hours	7 Days

Air, substrate, and material temperatures should be 55°F - 85°F (12.78°C - 29.44°C). Relative humidity 30% minimum, 85% maximum. **Important: make sure the temperature will be at least 5°F above the Dew Point during the 24-hour initial curing cycle.**

### Safety Instructions

If any of the CompositCoat™ Floor Finish components contact skin wash thoroughly with soap and water until all materials are removed. In case of eye contact, check and remove contact lens if present and easy to do. Cautiously rinse eye(s) gently with clean water or eye emergency wash solution if available for at least 15 minutes. Seek medical attention if irritation persists or complications occur. Wear appropriate safety glasses, gloves, dust masks, knee pads, hard hat, protective footwear, and harness equipment if applicable. See individual Safety Data Sheets (SDS) for full safety instructions, equipment, apparel, and other precautions.

## Step 1: Surface Preparation

### **Materials needed: (minimum, optional equipment can be used to make process faster)**

Hand grinder with small Diamabrush or grinding wheel (for corners and touch up spots)  
Diamond abrasion disc  
Floor Swing Machine  
Diamabrush  
Diamond Pad  
Fine particle floor brooms, dustpan  
Battery or electric blower  
Pump Sprayer (for wetting surface, test preparation)

Zirconia's products require a clean and dry surface prior to application. CeramycGuard reacts with the concrete to create a permanent bond and thus needs a surface that is clear of coatings, films, oil, grease, wax, surfactants, and other reactionary contaminants. Water must penetrate and "wet" the surface of the concrete. Any areas where liquid will not penetrate the surface, CeramycGuard will fail to adhere properly. A light abrasion with 50 grit diamond grinding is recommended with a floor machine and coatings remover (preferred system is Diamabrush™) to create a light scratch pattern (CSP 1) or "open" surface. The surface is ready when clean and sprayed water quickly absorbs into and darkens the concrete, rather than beading on the surface. For finished flooring, perform normal preparations for leveling, crack filling, and finish prep with compatible products. CeramycGuard is not a high build coating that will hide surface imperfections. Whatever surface texture that is present prior to application will be the texture after completion unless aggregate is added for additional non-slip properties on top of the finished surface.

*Reminder: Air, substrate and material temperatures should be 55°F - 85°F (12.78°C - 29.44°C). Relative humidity 30% minimum, 85% maximum. Important: make sure the temperature will be at least 5°F above the Dew Point during the 24-hour initial curing cycle.*

## Step 2: CeramycGuard™ Application

### **Materials needed:**

Access to clean potable water  
5 Gallon Mixing Pail x3 clean and dry  
Application/ribbon pouring bucket  
Paint sticks  
Drill (minimum 1500 RPM)  
Mixing drill bit (SS Jiffy Mixer or equivalent)

Brush or small roller for edging/cut-in/tight areas  
Single edge rubber blade squeegee (Magic Trowel)  
Carpet Texture Roller Covers (Linzer/American "Project Select") x 2  
Adhesive/Epoxy paint roller cover white x 2  
Paint roller frames  
Extension poles  
Spiked shoe covers  
Masking tape – plastic, drops etc., as needed to protect perimeter area of project  
Clean up rags and/or paper towels  
Box cutter or utility knife  
HOBO Temperature & Humidity Device recorder

**Mixing:**

- 1) Make sure drill bit is fully secured; operate drill at HIGH speed only
- 2) Pour entire jug of Liquefier (PART A) into Mixing Pail
- 3) Cut corner of Ceramic Powder (PART B) packet and slowly empty contents into Mixing Pail
- 4) Mix on High for 60 Seconds or until all Ceramic Powder is incorporated
- 5) Scrape the unmixed Ceramic Powder down the pail and off drill bit
- 6) Mix on High for an additional 60 Seconds; check to ensure all Ceramic Powder is incorporated
- 7) Pour entire plastic bottle of Densifier (PART C) into Mixing Pail
- 8) Mix on High for 60 Seconds. Let mixed solution sit for 2 minutes; allowing components to comeingle.
- 9) Mix only enough material that can be used during pot life of the mixture
- 10) Pot Life Once Mixed: minimum 1 hour when ambient temperature is 70°F

**Application:**

- 1) Using a recommend roller for small or cut-in areas or a squeegee for larger floor surfaces then back rolled, apply CeramycGuard evenly until surface is fully covered in a single coat, creating a final surface thickness of 6-7 mils (maximum 8 mils total thickness). Application rate is approximately 200-225 square feet per gallon, depending on surface porosity. In general, try to cover the surface completely using as little material as possible. Wear spike shoes while applying coating if you need to walk back over coated surface.
- 2) Protect CeramycGuard from water for minimum of 24 hours. Keep foot traffic and equipment off surface during curing period
- 3) Note the time and set up HOBO Device in area representative of the coated area's temperature and humidity

**Clean Up:**

Clean drill bits, rollers, and all other tools thoroughly with water after application to remove all leftover CeramycGuard material.

- Allow any leftover CeramycGuard material to harden and dispose of as concrete recycling or in appropriate waste disposal. Hardened materials are inert and have no hazardous conditions, they are accepted in the general waste.

### **Step 3: CrossLink VB™ Application**

#### **Materials needed:**

Paint tray or bucket with screen

Paint sticks

Brush or small roller for edging/cut-in/tight areas

3/8 inch nap white paint roller cover x 2

Paint roller frames

Extension poles

Masking tape – plastic, drops etc., as needed to protect perimeter area of project

Clean up rags and/or paper towels

Acetone for clean up

Box cutter or utility knife

Shoe covers

**IMPORTANT:** CeramycGuard must cure a minimum of 24 hours before application of CrossLink VB. Test the curing cycle first before applying by rolling a clean damp white 3/8 inch nap roller over the top of the freshly applied CeramycGuard. If the roller comes up clean with no CeramycGuard residue, the surface is ready for CrossLink VB adhesion promoter to be applied.

If on rare occasion the roller shows residue; the CeramycGuard did not cure properly. Double check the surface and ambient temperatures and relative humidity conditions to make sure the substrate and ambient conditions were within the acceptable ranges. Extended curing time may be required. Check with Zirconia Technical Support (732) 421-7471 for assistance.

**Air, substrate, and material temperatures should be 55°F - 90°F (12.78°C - 32.22°C). Relative humidity 30% minimum, 85% maximum.**

#### **Mixing:**

- 1) Mixing is not required. Mix only if solids are condensed on the bottom of container. If present gently mix product. Do entrain air into the mixture.

#### **Application:**

- 1) Use a cut-in brush, 3/8 inch white knap roller cover for small hard to reach areas and edging or for main area application.

- 2) Use high quality pump sprayer with a copper tip for best spray control. Apply a light wet coat and back roll using a 3/8" nap roller cover with handle and extension pole.  
Application rate: 1 – 2 Mils maximum (400+ sq. ft.)
- 3) Applicators should wear shoe covers for a clean flawless finish.

**\*IMPORTANT: Topcoats must be applied between a 30 min and 6 hour window after CrossLink VB application is completed. Plan accordingly.**

**Clean Up:**

- 1) Clean tools and flush equipment immediately after use with acetone.
- 2) **Do not use hydrocarbon solvents for cleaning.**

## **Step 4: CompsiCoat XD Topcoat Application**

**Materials:**

Access to clean potable water

2-5 Gallon mixing pail (clean and dry)

Paint sticks

Drill (**slow speed**)

Mixing drill bit (SS Jiffy Mixer or equivalent)

Brush and/or small roller for edging/cut-in/tight areas

3/8" nap polyester fiber normal capacity paint roller cover (Purdy White Dove preferred)

Roller pans or bucket screens

Paint roller frames

Extension poles

Spiked shoe covers

Shoe covers

Masking materials if needed

**Mixing:**

**Clear/Pigmented Gloss Finish**

- 1) For **Clear High Gloss** finish, mix Part A and Part B. For **Pigmented High Gloss** finish, add 1/2 cans of colorant per gallon kit to Part A and then mix in Part B. **Slowly** mix using a Jiffy mixer blade and drill. Mix thoroughly until uniform color is achieved.

## **Clear/Pigmented Satin Finish**

- 1) For a **Clear Satin** finish, mix Part A and then gradually/slowly add Satin powder and continue mixing until powder is well dispersed. Then add Part B and mix for at least a total of 3 minutes or more to ensure proper mixing of solution.  
. For **Pigmented Satin** finish, add 1/2 can of colorant per gallon into the Part A and satin mixture. When color is even add part B mixture. Slowly mix using a Jiffy mixer blade and drill for 60 seconds.

## **Application:**

### **High Gloss and Satin Finish**

- 1) Apply only one coat at 500 sq. ft. per gallon with 3/8" nap standard compacity polyester roller out of a roller pan. It is best to apply in a W then M pattern to make sure the product is evenly worked into the surface. After about 10 minutes an installer wearing spikes should cross roll the surface with an application roller at a perpendicular (90 degree) angle to the original application with as long as strokes as reasonable. (Do not rewet or add material to the roller at this time.)
- 2) Take great care not to apply this coating above or below the rate of 500 sq. ft. per gallon. Excess material may form blisters on the surface and applying too dry can result in an uneven appearance.
- 3) For additional slip resistance, Shark Grip® may be added at a rate of 3.2 oz per gallon of CompositCoatXD. Consult your Zirconia representative for aggregate options.
- 4) Use a paint stick to stir the product every 10 minutes to ensure proper suspension of mixture. If allowed to sit in a bucket for more than 15 minutes, remix for 30 – 60 seconds to reactivate the solution and disperse the ingredients back into suspension.
- 5) Be prepared! Use expert applicators to cover the surface completely and at the proper ratio of coverage (500 sq. ft. per gallon) the first coat!
- 6) Allow CompositCoatXD to cure 24 hours.
- 7) If a second coat is needed, lightly sand the first coat with 60 – 80 grit sandpaper. Sweep or vacuum all dust from surface. Wipe entire surface down with Xylene to ensure adhesion of second coat.

**\*Clean Up:** Tools and equipment can be cleaned with Acetone or Xylene. Dispose of covers properly after allowing them to harden.

## **Warranty**

Zirconia warrants (i) its title to the product, (ii) that the quality of the product conforms to Zirconia's standards at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT ZIRCONIA MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY ZIRCONIA. Any claim under this warranty must be made by Buyer to Zirconia in writing within five (5) days of Buyer's discovery of the claimed defect, but in

no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify Zirconia of such non-conformance as required herein shall bar Buyer from recovery under this warranty. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Zirconia. Zirconia is not responsible for any consequential damages