



# ***EPOXY***

## **APPLICATION GUIDELINES**



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# EPOXY APPLICATION GUIDELINES

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## PRODUCT DESCRIPTION

Our Crown Polymers' lines of epoxy floor coatings are available in a variety of formulations, allowing you to choose the right epoxy for your floor. The color, design, and versatility of epoxy make it a popular choice for decorative floor coating needs. From a mosaic-like floor topping to basic solid color concrete coatings. Our epoxies are excellent for multi-colored patterns and designs because the epoxy resin matrix can be pigmented to achieve an unlimited spectrum of colors. It can also be colored with aggregates, including flakes of marble or granite, recycled glass, mother of pearl, and various synthetic materials. Virtually indestructible, Crown Polymers' formulations make them ideal for commercial, industrial, and institutional facilities, especially where durability, longevity, and minimal maintenance are required. Epoxy floor coatings are the number one choice when durability and chemical resistance are required. This includes high-traffic retail facilities, shop floors, clean-rooms, warehouse floors, and garage floors. Our Crown Polymers' line of epoxy floor coatings come in a wide variety of color options, and can be accented with decorative quartz or multicolored flakes to provide a similar look to granite or terrazzo. Caution: Epoxy coatings are not paint. For professional use only.



## BENEFITS

- Epoxy floor coatings last longer than other floor coatings and resists wear while retaining its glossy appearance.
- Good impact and fire resistance compare to rugs, tiles, and sheet vinyl.
- Once cured, epoxy becomes incredibly strong, hard, and durable.
- Self-leveling, free flowing liquid, very quickly and easily installed.
- No need to wax the floors
- Epoxy floor coatings are seamless, offering easy maintenance.
- High shine, pleasing to the eye, with many colors and patterns to fit your specific style.
- Epoxy has high chemical resistance to a variety of chemicals ranging from low acid to high alkalinity.
- Excellent slip resistance. When properly cleaned, floors will look good thus preventing slip and fall.
- High gloss is ideal for a showroom shine appearance. Can improve lighting in your facility to a significant degree due to floor reflection.
- Epoxy coatings are 100% solid, no solvent to pollute the environment.
- Reduced labor steps and material usage compared to rugs, tiles, sheet vinyl, and floor wax.
- Variable cure speed for minimal downtime.
- Concrete sealing, build coat, cap coat, and top coating all in one.
- Perfect for odor-sensitive inventory and environments.
- LEED credits available for indoor environmental quality.
- 4.2 Low Emitting Materials – Paint & Coatings.

## REVIEWING YOUR MATERIALS

You need to familiarize yourself with the products you are using and the coverage rate along with having the necessary tools to get the job done correctly.

Crown Polymers offers a complete line of epoxy floor coatings with the formulation for any epoxy floor coating application.

### **CrownShield™**

Standard all-in-one one coat system: 5-8mils

### **CrownShield™ – Pro**

Standard two coat thin mils system: 10-20mils

### **CrownShield™ – HB**

High Build Epoxy Coating: 80mils CrownShield B-Pro single quartz broadcast 1/16" nominal thickness

### **CrownShield™ F-Pro**

Single flake broadcast 1/16" nominal thickness

### **CrownShield™ Q-Pro**

Single quartz broadcast 1/16" nominal thickness: ShopFloor

### **CrownShield™ – DBF 1/8**

Standard Flakes Double Broadcast: 1/8"

### **CrownShield™ – DBQ 1/8**

Standard Colored Quartz Double Broadcast: 1/8"

### **CrownShield™ – DB 1/8**

Standard Natural Quartz Double Broadcast: 1/8" ShopFloor

### **CrownShield™ – DBF 1/4**

High Build Double Broadcast Flakes: 1/4"

### **CrownShield™ – DBQ 1/4**

High Build Double Broadcast Colored Quartz: 1/4":

### **CrownShield™ – DB 1/4**

High Build Double Broadcast Natural Quartz: 1/4":  
ShopFloor™



# DESCRIPTION CHART

## PRIMERS

<b>CrownPrime™ 7021 or 7022</b>	Re-coatable and seamless epoxy primer with unique penetrating characteristics that seals pores in concrete. Low odor. High solids.
<b>CrownShield™ 301 or 8320</b>	100% solid base, general-purpose, thermosetting epoxy coating product can be applied up directly to properly prepped substrates or as a body and cap coat. Design to be tough alone or with combined aggregates. Low VOC. Low odor.

## SEALER

<b>CrownSealer™ WB 8080</b>	Clear, solvent-based acrylic designed for sealing concrete, aggregate, porous tile and concrete surfaces. Product produces high resistant and clean-ability.
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## PRIMER & SEALER

<b>CrownShield™ WB 8313</b>	A breathable capability that allows moisture vapor to escape from the concrete. Recommended to be applied as a concrete sealer to prevent outgassing during topping application. Low VOC.
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## VAPOR BARRIER

<b>CrownShield™ MVB 8303</b>	A low viscosity moisture vapor barrier epoxy promotes a deeper concrete penetration for superior substrate adhesion and therefore generates high propensity for sealing and blocking moisture. Low odor, low perms rating.
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## BODY COAT

<b>CrownGlaze™ 8321</b>	A general-purpose, thermosetting epoxy coating product can be applied directly to properly prepped substrates or as a body and cap coat. Design to be tough alone or with combined aggregates. Low odor.
<b>CrownShield™ 8320-S or 8320-F or 8320-H</b>	100% solid epoxy coating with options of epoxy hardeners ("S" Standard, "F" Fast, "H" Hot and Humid conditions) for your application demands and ambient temperature conditions. Low odor.
<b>CrownGuard™ 8301-S or 8301-F or 8301-H</b>	2-component, low odor, 100% solids, thermosetting epoxy designed especially for flooring applications subjected to moderate traffic, and where chemicals resistance is required. This epoxy coating product can be applied up to 60 mils in thickness and designed as super high gloss coating surface.
<b>CrownShop™ 8302-S or 8302-F or 8302-H</b>	100% solid pigmented epoxy coating designed for tough and durable monolithic floor. This tintable epoxy coating product can be applied directly to prep substrates, body or cap coat or grouting. Most suitable for moderate traffic areas. Low odor. ("Standard, "F" Fast, "H" Hot and Humid conditions).
<b>CrownShield™ HD 8327</b>	100% solid, high-build, UV stable, clear epoxy coating for decorative metallic & broadcast media. Versatile in providing different appearances from smooth to aggressive textures, random flaked, or attractive patterns of metallic colors.

# DESCRIPTION CHART

## PERFORMANCE TOP COAT

<b>CrownShield™ HD 8327</b>	100% solid, high-build, UV stable, clear epoxy coating for decorative metallic & broadcast media. Versatile in providing different appearances from smooth to aggressive textures, random flaked, or attractive patterns of metallic colors.
<b>CrownShield™ HD 8326</b>	UV resistance, no VOC and high performance epoxy topcoat. Bestseller for ultra-clear high gloss finish for visual depth and textures of chips. CrownShield HD 8326 is a slower vision of 8327.
<b>CrownCote™ CRE 8350</b>	Chemical resistant epoxy topcoat designed to have better performance than standard bisphenol-(A) epoxy.
<b>CrownPro™ Acid Shield 7500 or 7350</b>	A multi-functional novolac resin epoxy designed for high heat and chemical resistant.
<b>CrownShop™/CrownShield™ 8302 or 8320</b>	A general-purpose 100% solid, thermosetting epoxy coating product can be applied directly to properly prepped substrates and as a body and cap coat. Design to be tough alone or with combined aggregates. Non-UV. Low odor.
<b>CrownCote™ HS 8150</b>	Clear, 2-component high solid aliphatic polyurethane coating system. High performance topcoat with chemical and abrasion resistance used to add protective measures to prolonging the base coat.
<b>CrownCote™ PA 8330</b>	Clear, 2-component, fast-cure polyaspartic topcoat that is UV-stable and formulated to exceed performance demands on multi-purposed commercial floor coatings. Best suited for protective or as final top coat over colored quartz and decorative chips. Can be used over an epoxy primer, existing epoxy, or cap coat.
<b>CrownPro™ 7000 or 7072 SC</b>	7000 / 100% solid by volume aliphatic polyaspartic coating. 7072 SC / 88% solid by volume aliphatic polyaspartic coating. Used for fast curing, UV resistant top coat.
<b>CrownCote™ HB 8334</b>	High-build, 2 component topcoat that is UV-stable. Formulated to exceed performance demands for multi-purposed floor coatings. Can be used over epoxy primer, existing epoxy, or cap coat. Clear.
<b>CrownCote™ HP 8100</b>	2-component, aliphatic polyurethane topcoat that is a high performance thin film applied over an epoxy primer or used to recoat an existing epoxy or urethane floor for ultimate coverage. Suitable where chemical resistance and light stability are important.



## TYPICAL YIELDS

### Concrete Sealer/Primer

CrownShield™ WB 8313 – Needed if concrete is extremely porous.

300sq.ft. per gallon @ 3 mils thickness. Adding additional thinner may be required for lowering viscosity

### Concrete Primer

Crown WB 8080 – Basic water-based acrylic concrete sealer leaving solid and even surface film.

300sq.ft. per gallon @ 5 mils thickness.

### Primer Coat

CrownShield™ 8320– F (Fast), CrownShield™– S (Standard), CrownShield™– H (High Heat). The addition of 2 pts. of thinner solvent (PCBTF/ACETONE) is suggested if concrete surface is normal.

320sq.ft. per gallon @ 5 mils thickness

### Moisture Blocker

CrownShield MVB 8303™ MVP – is recommended when the moisture in the concrete readings are high.

CrownShield™ MVB 8303-S (Standard) or CrownShield™ MVB 8303-F (Fast)

100sq.ft. per gallon @ 16 mils thickness.

### Body-Coat

CrownShield™, CrownShop, and CrownGuard™ Products

CrownShield™ and CrownShop™ 100sq.ft. per gallon @ 16 mils thickness

CrownGuard™ 27 sq. ft. per gallon @ 60 mils thickness.

### Broadcast Media

- Macro 1/4" Flakes = 0.10 – 0.15 lbs. sq.ft. into wet epoxy
- Micro 1/8" Flakes = 0.15 – 0.20 lbs. sq.ft. into wet epoxy
- Colored or Natural Quartz 20-25 mesh = 0.40 - 0.50 lbs. sq.ft. into wet epoxy
- Colored or Natural Quartz 40-50 mesh = 0.50 – 0.60 lbs. sq.ft. into wet epoxy

### Seal Coat

CrownShield™ or CrownShop™ coverage with broadcast media

Using 1/4" flakes – 150 sq.ft. per gallon @ 10 mils thickness

Using 1/8" flakes – 100 sq.ft per gallon @ 16 mils thickness

CrownShield™ or CrownShop™ coverage with quartz

Using quartz 20-25 mesh – 45 sq.ft. per gallon @ 35 mils thickness

Using quartz 40-50 mesh = 100 sq.ft. per gallon @ 16 mils thickness

### When a Second Coat is Needed

CrownShield™ or CrownShop™ coverage over first cap coat.

1/4" flakes, 1/8" flakes and quartz 40-50 mesh – 200 sq.ft. per gallon

Quartz 20-25 mesh – 150 sq.ft. per gallon

## TOOLS NEEDED

- Five gallon (5 gal) mixing pail
- Two gallon (2 gal) mixing container
- Low speed (450 rpm) variable speed drill
- Jiffier mixing blade
- Finish trowel
- Mix & measure container for small or large mixes
- 18" – flat rubber squeegee with pole
- 18" – 1/8" V-notched squeegee with pole
- 18" – 3/8" nap non-shed roller covers with frame and pole
- Paint stir stick
- Disposable paint brushes
- Safety glasses
- Disposable latex gloves
- This Installation Guideline

## MAN POWER

We suggest a 3 man crew for every 1,000 sq.ft. with a working knowledge of epoxy application methods and best practices; including proper personal protective equipment and waste disposal.

## LIMITATIONS

- Do not mix more material that cannot be used in 10 minutes.
- Do not apply coating if rain is forecasted within a 12-hour window before and after installation.
- Do not mix if the materials are too hot, or have been sitting in direct sunlight, or near a heat source.
- Do not install if there is any pooling of water on installation area substrate.
- Do not install if substrate is still contaminated after prep.
- Do not allow buckets of materials to sit for long period of time with lids opened.
- Do not allow people to track through the mixing station area or unauthorized people from coming near the installation area.
- Do not apply coatings when the ambient temperature is within 5° F of dew point.
- Do not ingest, or get materials on skin during installation.
- Do not breathe cured bucket material vapors.
- Do not take breaks or stop during installation.
- Do not let mixed materials sit in large mass for more than 3 minutes.
- Do not apply out dated materials. Consult manufacture for shelf life or QC validation.
- Do not attempt to apply alone on larger jobs or on hot days.
- Do not stay in a confined space during application while product is being applied.
- It is common to see color inconsistencies, shadowing and/or roller marks after the coatings has dried.
- Broadcasting into the mid-coat alleviates coating surface unevenness.

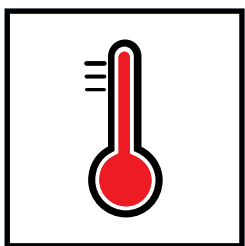


## LIMITATIONS (CONT.)

- Do not apply material when the concrete temperature is rising. This will create out-gassing from the concrete. Concrete out-gas may be mistaken for material defects. As a rule of thumb, concrete will exhale when the air temperature is warming up and concrete will inhale as the ambient temperature is cooling down. We recommend to have the floor coatings installed during the cooler portion of the day or when the ambient temperature is dropping.

## THINGS TO CONSIDER BEFORE STARTING

**NOTE: Please go through this list to ensure none of the following conditions exist before starting the job.**



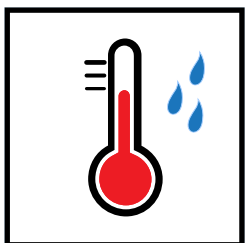
### **Extreme Temperature**

The ideal temperature range is 50°F-90°F (10°C-32°C). Warmer temperatures will shorten material pot life and workability. Cooler temperatures will extend the cure time. Know your "Return to services" requirement to properly plan your installation and "Return to service" time frame to meet the your client's schedule.



### **High Humidity**

Humidity can greatly affect the outcome of your coatings both in performance and appearance. Relative humidity of less than 75% is ideal. As humidity increases; blushing or dulling of the finish can happen and can create uncured spots. It is highly recommended to coat your floor when relative humidity is expected to be below 75%. Do not coat if rain is in the forecast within 8-12 hours before and after application.



### **Dew Point Temperature**

The dew point is temperature equal to the temperature at which condensation begins to form. When condensation forms, never apply any Crown Polymers products. Never coat the floor within 5°F of the dew point.



### **Planning Your Coatings**

Open all the packages and review the contents of your purchase. Familiarize yourself with the mixing and application process and review the TDS, SDS, and application guidelines. Identify and separate materials accordingly for application and store in a convenient place out of direct sunlight or freezing temperatures.

If planning on coating sections of the area at different times, coat the back half or the least accessible area first. Try to divide the application area at or near a natural seam in the floor or joints such as a saw-cut or troweled expansion joints. If no natural seams are present, use a professional quality painter's tape to mask termination point area.

Always take special care when moving things early after the coating has been applied. Coatings that are freshly applied are soft, this is considered dry to touch but not cured. Damage to the coatings surfaces may result from dragging and scuffing objects across the coated floor. 24 up to 48 (depending on the coating system) hours is recommended for light duty traffic after placement of the materials. Full cure may take up to 14 days.



### **Damaged Concrete**

Pitted and/or spalled concrete surfaces can be an indication a soft/weak concrete. A minimum compression strength of 3,000 psi concrete is recommended for epoxy coatings to bond properly. For a quick evaluation, the use of a rebound hammer is recommended. This tool is used to measure the density of concrete

via compressive strength. But the best method is to take a core and send it to the lab for proper compressive strength measurement or determination of any contamination that could potentially adversely affect the coating bond strength to the concrete substrates.



### **Soft or Chalky Concrete**

Not an ideal substrate. Soft concrete must be ground down before coating. This will help smooth out the surface while removing the soft fines from the surface. Using a screwdriver, apply pressure and try to 'dig' at the surface. If the concrete flakes, scratches, loosens or otherwise appears dusty, do NOT coat the floor until this issue is resolved.



### **Contaminates**

If the concrete is suspect of contamination such as silicone fluid sealer, fire dressing (which can contain silicone), or spotted oil fluid, a heavy-duty grinder will be needed prior to the material installation. If the spotted oil is motor oil or grease, a heavy-duty degreaser is required to reduce oil residue from coming to the surface that can lead to delamination. Carbide diamond grinder heads are recommended to remove the surface layer to a suitable CSP, specified concrete surface profile.



### **Clean the Surface of Debris**

After the concrete has been adequately ground, immediately vacuum the entire floor to remove any residue, loose stones, grind dust or concrete debris. Any concrete dust left to settle back on the surface will prevent the epoxy from achieving proper adhesion.

## Cracks & Joint Fill Coverages

- Mix CrownCove™ product no. 8312 2:1 ratio: 2 parts (Part A) Resin and 1 part (Part B) Hardener.
- A 1.5 gallon mix: Pour 1 gal. of CrownCove™ product no. 8312 (Part A) into a 2 gal. mixing bucket.
- Pour a 1/2 gal. of CrownCove™ product no. 8312 (Part B) into the same 2 gal. mixing bucket.
- Mix well using a low speed drill (450 rpm) with a 3.5" Jiffler blade and mix for 2 minutes.
- Splitting the mixed batch to 4 individual quarts is recommended to avoid heat build-up. This will also help maintain working time.
- Brush CrownCove™ product no. 8312 into the cracks, joints, deep holes, spalled, and divots. We recommend a 3" disposable paintbrush.
- Mix another 1.5 gallons and transfer the mixed 1.5 gallon into a clean 5 gallon pail.
- Add (2) one gallon containers (approximately 30lb.) of 60 mesh semi-angular quartz.
- Mix using a low speed (450rpm) high-torque, double hand-held drill with helix/spiral blade.
- Mix all together for 5 minutes until a homogenous mixer. Immediately pour the material into the cracks, joints, etc.
- Using a 3"x12" finish trowel, flat and flush to ensure the material is nested in the crack, joints, etc.
- Allow material to cure for minimal of 12 hours.
- Grind down high spots as needed.

## pH Acid Wash

Muriatic acid solution is often not recommended. However, it can be used to neutralize the alkalinity of the concrete, which will lower the pH to help ensure that the priming material acquires proper adhesion to the substrate. If uncertain, a pH test can help determine if the slab does have high alkali. The acid wash is NOT used to clean the substrate. Cleaning is done prior to the acid wash using a good quality degreaser or detergent. Do NOT use a commercially available combination acid etcher/degreaser. The acid wash must be rinsed thoroughly.

## Testing Process (optional)

1) First mix a small quantity and confirm material components and its mix ratio. 2) Do not mix up more material than you intend to apply within the allotted pot life. 3) Use immediately once mixed. Unused product will harden and become unworkable and may produce toxic vapors. IMPORTANT: Move cured materials outside and away from flame, heat source or sparks. 4) Do mix until ready to begin.

## Large Cracks or Concrete Gaps

CrownCove™ product no. 8312 is recommended to fill cracks, spalls and gap areas. Concrete will have joints and seams to allow for movement and expansion.



Cracks, spalls, and gaps are easily fillable. Joints are often difficult as it is uncertain that filling the joints, static or dynamic joints, will not crack. Always error on the assumption that the joint will inevitably shift or crack.

## Rough or Irregular Surfaces

Surface wear and imperfections in finishing may leave areas of the floor rough. Epoxy will not necessarily fill in rough spots or provide a level surface when the substrate is irregular. If a smoother surface is desired, install CrownGuard™ product no. 8301, high-build epoxy first to resurface any surface irregularity. Crown Polymers also offer our CrownShield 315 SL – it is a self-

leveling three (3) components pigmented epoxy concrete overlay. These two products are also recommended as a high build coating to hide concrete surface irregularities.

### **New/Fresh Concrete**

Freshly poured concrete should be allowed to cure for a minimum of 28 days. Do not apply any sealers or curing agents to the finished concrete. Hand-troweled, smooth, bare untreated concrete is ideal to receive epoxy coatings.

### **Concrete Priming**

There are 3 distinctive direct to concrete prime coatings to choose from depending on your substrate.

**Sealer** – Capable of penetrating deep into the porosity of the concrete to seals pores.

**Primer** – Lays directly on top of the surface of the concrete with slight penetration into the concrete pores.

**Moisture Blocker or Moisture Vapor Barrier** – similar to a primer but can tolerate high moisture reading. Can be applied to a damp concrete surface.

## **BASIC MIXING PROCEDURES**

1. Pre-measured kits: 2 parts (Part A) Resin and 1 Part (Part B) Hardener. Do not mix too large of a batch. Mix only what can be applied in 10 minutes. Epoxy will kick faster in mass and in higher temperature.
2. In a clean mixing pail, add (Part A), then (Part B). Mix A/B together using a low speed 3/8" drill (450 rpm) with a 3.5" Jiffler blade for 2 minutes.
3. Pour the entire bucket onto the floor immediately. Mass material can become thick and congeal in the pail making it unusable. Warmer temperatures and higher humidity will decrease work time and pot life.
4. In outdoor applications weather conditions may require you to stop. Pay attention to the weather.
5. Use a 3" disposable brush to cut/brush along edge of the wall and around objects that can be rolled. It is always a good idea to stay ahead of the roller person. Keep a wet edge.





6. A 9" and 18" 3/8" non-shed epoxy grade roller is recommended with long pole so that you may easily apply the mixed epoxy. Dip and roll is not recommended for epoxy. NOTE: Remove roller cover lint with good quality adhesive tape is highly recommended when applying topcoats. Saturate the roller first before rolling the floor.



7. Using a 12" or 18" flat squeegee, spreading the material left to right and right to left. When the edge of the ribbon has been reached, pull the materials from top down along the edge of the wall or along the end point. For a higher build: use a 1/8" rubber v-notched squeegee.



8. With your saturated roller, back roll up and down, perpendicular to the squeegee to level out the squeegee marks. With another roller, perform a final cross roll left to right and right to left. This will ensure the materials to completely relax eliminating any possible squeegee marks or roll lines. A final cross roll is not necessary if just applying a seal or prime coat over concrete. This coat will be buried with another coat. **As a final smooth finish, or when applying pigmented epoxy, a final cross roll is absolutely necessary.**



9. Allow material to dry overnight. Typically, 24 hours for light foot traffic and 7-14 days for full properties and chemical resistance. For recoat or next-step applications a typical minimal time of 12 hours is required for standard cure epoxy and 4 hours for fast cured epoxy. There is a 72 hour maximum timeframe for recoats. If suspected of contamination anytime during the recoat period, sanding is required.



**IMPORTANT! Mix only what can be placed in 10 – 15 minutes. Never attempt to re-temper the coating once it begins to set.**

## ANTI-SLIP/NON SKID

### Surface Texture & Anti-Slip Profile

- Non-Skid AO-24 very coarse (Crown part no SP 639)
- Non-Skid AO-36 (Crown part no. SP 637)
- Non-Skid AO-60 very fine (Crown part no SP 635) are broadcasted at a rate of 0.5 lbs. per 10-20sq.ft. depending on the amount of texture desired.
- Non-Slip Agent (CrownGrip HP Part no. 655) mix in at 4oz/gallon and for Wear Resistance Package CrownGrip HP part no. 655 (3lb. per gallon) are mixed into the resin matrix.



Our Non-slip and Wear Resistance Agents will not remain suspended in the mixture and will not be evenly distributed while applying. Special steps must be taken. Contact Crown Technical Team for further assistance.

If a non-slip/non-skid surface texture is required the following materials can be used:

- SP 639 Non-skid AO 24 – very aggressive textured surface for heavy non-slip
- SP 637 Non-skid AO36 – medium textured surface for moderate services area
- SP 635 Non-skid AO60 – light texture surface for mild services area
- Non-slip Agent – standard foot traffic non-slip texture for everyday uses
- Wear Resistance Agent – combining non-slip agent with heavy wear resistance for maximal wear performances while offering minimal non-slip texture finishes.

### Non-Skids

Non-skids are typically broadcasted into the last coat prior to the final topcoat of a thin mil urethane. After applying a medium build coat/ seal or coat/prime coat. Broadcast Non-Skid AO-24, AO36 or AO-60 into the wet coats at 0.5lb. over a 10-20sq.ft. depending on the degree of surface texture specified.

Once broadcast is completed immediately reroll to encapsulate. Keep in mind of the work time remaining to complete the reroll and allow the epoxy to set overnight.



Optional – a thin urethane topcoat can then be applied depending on the specification for additional durability. Do not build film up too much after the broadcasting process or you will lose the surface texture.

### **Non-Slip and Wear Resistance Agents**

Non-Slip and Wear-Resistance are often needed in any situations due to traffic bearing demands. Non-Slip and Wear Resistance Agents are mixed into the final topcoat, commonly, in the Urethane Topcoat such as the CrownCote™ – HP part no 8100. After the specified concrete floor topping has been applied and allowed to adequately dry, apply the final topcoat. For non-skid, add 4oz of CrownGrip HP part no. 655 per gallon of CrownCote™ – HP. For wear-resistance, add 3lb of CrownGrip HP part no. 655 per gallon of CrownCote™ – HP. Dip and roll is the preferred method when installing CrownCote HP part no. 8100 with these mentioned agents.



## **APPLYING MID-COAT**

Sometimes a mid-coat is needed. The mid-coat is applied when the prime coat is dry to the touch (6-8 hours at 75°F). You may choose to wait up to 72 hours after applying the primer coat before applying the mid-coat. However, if you are applying the mid coat after 72 hours of the prime coat, you must scuff the prime coat with 60-80 grit sand paper or screens, then vacuum and tack rag with acetone the entire floor just prior to applying the mid-coat to ensure a proper bond. A final cross-roll is very critical at this point when leaving material smooth for a stand-alone coating.

# CROWNSHIELD™ SYSTEM CONFIGURATIONS & INSTALLATIONS

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**CrownShield™ – WB 8313** is a 2-component water-based epoxy sealer/primer and an all-in-one coating. This water-based version requires its own installation procedures. An additional topcoat coat is often not required with this one coat system. Apply primer/sealer at 200-300sq.ft. per gallon. And the second coat should be applied at 100sq.ft. per gallon to achieve a nominal thickness of 20mils.

1. Combine 1 part (Part A) to 3 parts (Part B) and mix well using a low speed drill (450 rpm) with a 3.5" Jiffler mixing blade for 2 minutes.
2. Pour the entire mixed materials onto the prepared concrete like a ribbon.
3. Using a 12" flat window squeegee on a long pole and spread the priming coat from left to right.
4. Back-roll up and down using a 3/8" non-shed roller on a long pole.
5. Final cross roll left to right to eliminate any roll lines or puddling.
6. Allow material to dry for 24 hours before full traffic is allowed. Light foot traffic is allowed after 4 hours depending on temperature and conditions.
7. If a second coat is required, it should be applied at 100sq.ft. per gallon to achieve a nominal thickness of 20mils.

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**CrownShield™ – Pro** is a 2-component system specified mainly for dust proofing or basic concrete protection and is comprised of CrownShield™– WB 8313 and CrownCote™– HP 8100.

1. Apply a prime coat as instructed above in "CrownShield™ WB 8313 Standard One-Coat System". Allow the prime coat to dry 4 hours minimum.
2. Apply a second coat of CrownCote™– HP 8100. CrownCote HP 8100 is a thin-mils high-performance urethane topcoat.
3. Combine 1-part, Part B to 3-parts, Part A parts of CrowCote HP 8100 by volume and mix the urethane topcoat well using a low speed drill with a 3.5" Jiffler mixing blade for 2 minutes.
4. Apply the urethane topcoat at 533sq.ft./gallon. NOTE: A dip and roll method is



recommended for this topcoat. Pour the entire mixed materials into the deep paint tray.

5. Use an 9" or 18" (3/8") non-shed roller. If 9" roller cover is used, hook the 9" cover onto a double hung roller frame. Dip the roller into the tray. Remove excessive material out by rolling along the deep tray well. Roll the dipped material left to right, no puddling, keep the material tight. Heavy deposits will foam when cured.
6. Back-roll up and down using the dipped 3/8" non-shed roller. Do not allow the roller to be covered or fully saturated with the urethane as it will leave a heavy deposit.
7. Final cross roll left to right as needed to eliminate any roll lines or puddling. Proper back rolling is all that is required. If cross-rolling, then cross roll the entire floor. Do not spot cross roll.

Allow material to dry for 24 hours before full traffic is allowed depending on temperature and conditions.

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#### **CrownShield™- HB** High Build Epoxy Coating up to 80mils

1. Apply a clear prime coat of CrownShield WB product no. 8313 as instructed in "Basic Mix Procedures".
2. Allow primer to dry minimal of 4 hours.
3. Apply CrownGuard™ product no. 8301 as a base coat at 60mils. CrownGuard™ needs a minimum of 12 hours dry time prior to next application. Spread the mixed material left to right using a 1/8" v-notch rubber squeegee at 27sq.ft. per gallon or 40sq.ft. per 1.5 gallon mix to yield a 60 mils nominal thickness.
4. 1 gallon (Part A.) Resin and ½ gallon (Part B) Hardener.
5. Mix well using a low speed drill (450 rpm) with 3.5" Jiffler mixing blade for 2 minutes.
6. Immediately pour the entire mixed material on top of cured WB 8313 like a ribbon.
7. Use 1/8" V-notched rubber squeegee to spread the CrownGuard at a rate of 27 sf.ft per gallon or 40 sq.ft. per 1.5 gallon mix yield a 60 mils nominal thickness.
8. Saturate a 3/8" non-shed nap roller.
9. Back-roll up and down or perpendicular to the squeegee line.
10. Cross-roll left to right to eliminate roll and squeegee lines.
11. Do not re-roll once cross-roll has been completed.
12. Allow the material to relax and set up.
13. Apply CrownCote HB product no. 8334 as a high-build polysapartics topcoat.

Combine CrownCote™- HB 1/2 gallon of (Part A) to 1/2 gallon of (Part B) using a low speed drill (450 rpm) with 3.5" Jiffler mixing blade for 2 minutes.

#### **System Steps**

1. CrownShield™ WB
2. CrownGuard™
3. CrownCote™ HB

14. Pour out mixed CrownCote™- HB onto the cured CrownGuard™ like a ribbon.
15. With a 1/16" v-notch rubber squeegee, spread the mixed material left to right. Typical yield is 160sq.ft. per gallon for **10mils thickness**
16. Back-roll up and down, then a final cross, roll left to right
17. Allow the material to relax and level.
18. Allow the material to set 24 hours prior to light traffic.

### **CrownShield – Single broadcast systems 1/16" nominal thickness**

**CrownShield™- F - Pro** Standard Flakes broadcast system

**CrownShield™- Q- Pro** Standard colored quartz broadcast system

**CrownShield™- B - Pro** Standard Natural Quartz broadcast system

1. Apply a clear prime coat CrownShield WB Product no. 8313 as instructed in "Basic Mix Procedure".
2. Allow primer to dry a minimum of 4 hours.
3. Apply base/midcoat of CrownShop product no. 8302 or CrownShield Product no. 8320. Apply at 100sq.ft. per gallon. Allow the material to relax for 10 minutes before broadcasting.
4. Broadcast decorative colored quartz into the wet epoxy after the final cross-roll. Toss the media up into the air. Allow the material to fall like rain drops.  
Macro 1/4" Flakes = 0.10 – 0.15 lbs. sq.ft. into wet epoxy  
Micro 1/8" Flakes = 0.15 – 0.20 lbs. sq.ft. into wet epoxy  
Quartz 20-25 mesh = 0.40 - 0.50 lb. per sq.ft. into wet epoxy  
Quartz 40-50 mesh = 0.50 – 0.60 lb. per sq.ft. into wet epoxy
5. Allow the quartz or flakes to set up into material for a minimum of 12 hours.
6. Using a hard bristle broom to remove all excessive quartz or sand pole to remove excess flakes. An electrical leaf blower can be used as well to further help blow off excessive materials.
7. Scoop up all the excessive materials into a clean bag. If properly handled – the excessive quartz or flakes can be reused. If damaged, quartz or flakes should not be reused.
8. Sand off the top stack of the quartz, using a pole sander, 80-100 grit, several times. Pole sanding is fast and efficient. This will eliminate high point or stacking of the quartz or flakes.

#### **System Steps**

1. CrownShield™ WB
2. CrownShop™ or CrownShield™
3. Quartz or Flakes
4. CrownShop™ or CrownShield™
5. CrownCote™ HP

9. Thoroughly vacuum up all loose quartz, quartz dusts, and debris and or flakes. Do not leave any loose, broken media or dust laying or nested, which can lead to delamination of the epoxy seal/cap coat.
10. Mix and process the capcoat of CrownShop™ product no. 8302 or CrownShield Product no. 8320 as instructed in "Basic Mix Procedure".
11. Immediately pour the entire mixed material onto the cured materials like a ribbon.
12. Using a 12" flat window squeegee on a pole, spread the material evenly. Spread rate of second mid-coat is 45sq.ft. per gallon over Quartz 20-25 mesh and 100sq.ft. per gallon over Quartz 40-50 mesh.  
CrownShield™ or CrownShop coverage with broadcast media  
Using 1/4" flakes – 150 sq.ft. per gallon @ 10 mils thickness  
Using 1/8" flakes – 100 sq.ft per gallon @ 16 mils thickness
13. Back-roll then final cross using a 9" or 18" non-shed 3/8" nap roller.
14. Allow the material to set up into the epoxy for a minimal of 12 hours.
15. Mix and process CrownCote HP 8100 as the final topcoat instructed above

### **CrownShield – Double broadcast systems 1/8" nominal thickness**

**CrownShield™– DBF 1/8"** is used when broadcasting Standard Double Broadcast Flakes

**CrownShield™– DBQ 1/8"** is used when broadcasting Standard Double Broadcast Colored Quartz

**CrownShield™– DB 1/8"** is used when broadcasting Standard Double Broadcast Natural Quartz

1. Apply the clear concrete prime coat CrownShield WB product no. 8313 as instructed in "Basic Mix Procedure" and allow prime coat to dry a minimum of 4 hours.
2. Apply base/mid-coat of any clear CrownShield™ or CrownShop epoxy. Apply as instructed in the "Basic Mix Procedure".
3. Spread material to 100sq.ft. per gallon. This is considered a broadcast coat layer. Allow the material to relax for 10 minutes before broadcasting.
4. Broadcast decorative flakes into the wet epoxy after the final cross-roll. Broadcast the flakes or quartz up into the air allowing them to fall like snowflakes evenly over the surface area.  
Macro 1/4" Flakes = 0.10 – 0.15 lb. per sq.ft.  
Micro 1/8" Flakes = 0.15 – 0.20 lb. per sq.ft.  
Colored or Natural Quartz 20-25 mesh = 0.40 - 0.50 lbs. sq.ft. into wet epoxy  
Colored or Natural Quartz 40-50 mesh = 0.50 – 0.60 lbs. sq.ft. into wet epoxy

#### **System Steps**

1. CrownShield™ WB
2. CrownShop™ or CrownShield™
3. Quartz or Flakes
4. CrownShop™ or CrownShield™
5. Quartz or Flakes
6. CrownShield™ or CrownCote™ HP

Allow the flakes or quartz to set up into material for a minimum of 12 hours.

5. Remove all excess flakes or quartz using a hard bristle broom. An electrical leaf blower can be used as well to further help blow off excessive materials.
6. Scoop up all the excessive materials into a clean bag. NOTE: If properly handled, the excessive flakes or quartz can be reused. If flakes are broken, flakes should not be reused. Flakes often curl up while the epoxy is curing. Quartz often stack up on each other when contaminated with epoxy.
7. Sand the high points of the broadcasted media by using a pole sander, 80-100 grit, several times. Pole sanding is fast and efficient. This will eliminate pointy flakes sticking up from the surface.
8. Thoroughly vacuum up all loose quartz, flakes, chip dusts, and debris. Don't leave any loose, broken flakes or dust flakes laying or nested, which can lead to delamination of the epoxy cap coat.
9. Mix and process the "Mid-coat" as instructed in "Basic Mixing Procedure".
10. Pour the entire mixed materials onto the cured material like a ribbon.
11. Use a 12" flat window squeegee to spread the material.
12. Spread material over broadcasted media:. Do not leave pooling.
  - CrownShield™ or CrownShop™ coverage with broadcast media
  - Using 1/4" flakes – 150 sq.ft. per gallon @ 10 mils thickness
  - Using 1/8" flakes – 100 sq.ft per gallon @ 16 mils thickness
  - CrownShield™ or CrownShop™ coverage with quartz
  - Using quartz 20-25 mesh – 45 sq.ft. per gallon @ 35 mils thickness
  - Using quartz 40-50 mesh = 100 sq.ft. per gallon @ 16 mils thickness
13. Back-roll perpendicular to the squeegee using a 9" and/or 18" non-shed 3/8" nap roller and then make a final cross to ensure the material is evenly spread with no pooling and/or roll lines.
14. Broadcast second broadcast media (see step 4) up into the air into the wet epoxy and allow flakes to set up into the epoxy for a minimum of 12 hours.
15. Repeat steps 5 to 8.

**CapCoat/TopCoat:** Two topcoats are recommended after the second broadcast is completed. This is often referred to as a "Cap Coat" which seals in the flakes followed by a final top coat.

NOTE: A "Cap Coat" is made from epoxy and a "Top Coat" is a Urethane Sealer.

If the final Cap Coat is Epoxy, use CrownShield™

Apply at 300sq.ft. per gallon.

If the final Top Coat is Poly-Urethane, use CrownCote™– HP product no 8100

Apply at 533 sq.ft. per gallon.

Please consult our Crown Technical Department for proper final top coat needs.



16. A final cross-roll left to right is needed to eliminate any roll lines or puddling. Proper back rolling is all that is required. If cross-rolling, then cross-roll the entire floor. Do not spot cross-roll.
17. Allow the final topcoat to cure 24 hours for light foot traffic and 7 to 14 days for full cure.

**CrownShop™ – Floor cap coat** spread rates:

45sq.ft. per gallon over Quartz 20-25mesh

100sq.ft. per gallon over Quartz 40-50mesh

1. Combine and mix CrownShop™ – Floor as an Epoxy “Cap Coat”. (see basic mixing procedures.)
2. Allow the “Cap Coat” to dry for minimum of 12 hours before final topcoat.

NOTE: If final topcoat is epoxy, use any CrownShop™ – Floor. Spread to 300sq.ft./gallon.

3. Mix as instructed. Apply using flat squeegee left to right, back-roll up and down, final cross-roll left to right.
4. If final topcoat is CrownCote™ – HP, apply to 533sq.ft./gallon.
5. Combined and mix CrownCote™ – HP as instructed and pour into a deep paint tray.
6. Using an 18" or 9" 3/8" non-shed rollers. If 9" roller cover is used, hook the 9" cover onto a double hung roller frame. Dip the roller into the tray. Do not allow the roller to be covered or fully saturated with the urethane as it will leave a heavy deposit. Remove excessive material by dragging the roller along the deep tray well.
7. Back-roll the dipped material up and down and then left to right, no puddling, keep the material tight or heavy deposits will foam when cured.
8. Final cross-roll left to right as needed to alleviate any roll lines or puddling. Proper back-rolling is all that is required. If cross-rolling, then cross roll the entire floor. Do not spot cross-roll.

Allow the final top coat product to cure 24 hours for light foot traffic and 7 to 14 days for full cure.

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## CrownShield 1/4" high build, double broadcast systems

**CrownShield™– DBF 1/4"** high build, double broadcast flakes

**CrownShield™– DBQ 1/4"** high build, double broadcast colored quartz

**CrownShield™– DB 1/4"** high build, double broadcast nature quartz

These products yield a thicker film build for better concrete surface leveling and reduce concrete surface variations and irregularities to offer a smoother overall coating surface. These 1/4" systems are designed to be a labor cost savings alternative to a triple broadcast system. For installation instructions refer to CrownShield™– DBF-1/8" and/or CrownShield™– DBQ 1/8" in this document.

### System Steps

1. CrownShield™ WB
2. CrownGuard™
3. Quartz or Flakes
4. CrownShop™ or CrownShield™
5. Quartz or Flakes
6. CrownShield™
7. CrownCote™ HP

### Typical Steps:

- Concrete Priming – CrownShield™– WB product no. 8313: 300sq.ft. per gallon
- Base-Coat – CrownGuard™ product no. 8301 : 60 mils @ 27sq.ft. per gallon
- Broadcast Media (Flakes/Quartz)
- Mid-Coat – CrownShield™ product no. 8320: be sure to check on the spread rates for the type of media you are using.
- Broadcast Media (Flakes/Quartz)
- Cap-Coat – CrownShield™ product no. 8320: Epoxy cap-coat
- Top-Coat – CrownCote™– HP product no. 8100; high performance polyurethane topcoat.
- Consult Crown Technical Services Team for proper topcoats.

**Reminder: Remove any excess quartz/flakes materials, dust and debris.**

**Sweep, sand and vacuum. Failure to properly clean between coats can cause de-bonding**

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## Coatings Surface Appearance and Texture

The floor coatings appearance and texture are dependent on the colored quartz design and how many seal coats are placed. Consult technical department for technical assistance.

When applying a broadcast system:

- A single "Epoxy Cap-Coat" gives you a standard surface texture.
- A double "Epoxy Cap-Coat" creates an OPS texture (Orange Peel Surface texture)
- A triple "Epoxy Cap-Coat" yields a smooth finish.
- For Anti-skid – broadcasting AO (aluminum oxide) during the last "Epoxy Cap-Coat" into the wet film is recommended prior to the final topcoat.

## Final Top coat

Crown Polymers offers multiple types of polyurethane, polyaspartics, and UV epoxy top coats. Follow final topcoat application procedures as outlined above. Surface-wear and anti-skid resistance can be incorporated into the top coats or broadcasted.

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### Garage Floor Coat with Random Broadcast Application:

1. Apply a concrete prime coat CrownShield WB 8313 as instructed in "Basic Mix Procedure". Allow prime coat to dry minimum of 4 hours.
2. Apply a base coat of CrownGuard™ product no. 8301 epoxy.
3. Spread material to 100sq.ft. per gallon. This is considered a broadcast base coat layer. Allow the material to relax for 10 minutes before broadcasting into it.
4. Broadcast decorative flakes into the wet epoxy after the final cross-roll, toss the flakes up into the air. Allow the flakes to randomly disperse into the air and fall like snowflakes. Decorative Flakes = 0.25lb per 10-20sq.ft. into wet epoxy until desired look is achieved. Allow the flakes to set up into material for a minimum of 12 hours.

NOTE: Chip should lay flat. If flakes curl up while the epoxy is curing lightly sand the high points of the flakes by using a pole sander with 100 grit. Pole sanding is fast and efficient. This will eliminate pointy flakes sticking up.

5. Thoroughly vacuum all loose flakes.
6. Tack rag with acetone to wipe up all dust and debris.
7. Combine and mix your choice of CrownCote™ as instructed. The following topcoats are recommended: CrownCote™ HP 8100 or HB 8334.
8. Pour the mixed material onto the cured epoxy in a ribbon like form. A 12" flat window squeegee on a long pole can be used to spread CrownCote™- HP and CrownCote™- HB.
9. CrownCote™ must be dipped and rolled for best results.
10. Back roll, then a final cross-rolling using a non-shed 3/8" nap roller.
11. A final epoxy Cap-Coat is not needed but can be applied to further protect and enhance the finish.

Allow the final top coat product to be cured 24 hours for foot traffic and 7 to 14 days for full chemical resistance.

## Building Epoxy Mortar Systems:

Crown Polymers offer two types of premium quality epoxy mortars.

### Crown ESG: Epoxy Slurry Grade: (1.5 gal of mixed epoxy to 25lbs. of Quartz)

1. Apply a concrete prime coat CrownShield WB 8313 as instructed in "Basic Mix Procedure".
2. Allow prime coat to dry minimum of 4 hours.
3. Measure CrownShop™ Floor product no. 8302– to a 2:1 mixing ratio: 1 gallon (Part A) and 1/2 gallon of (Part B).
4. Mix (Part A) and (Part B) together in a 5 gallon pail. (See general mixing procedures above).
5. Use a double-hand-held, low speed (450 rpm) power drill with a 5" Spiral or Helix blade for 1 minute.
6. Slowly add 25lb. Quartz: 1/2 gallon 40 mesh (8lb.) and 1 gallon 25 mesh (16lb.). Mix for another 3 minutes. Cautions: Warmer aggregate and/or epoxy can shorten the pot life.
7. A thorough blending is mandatory. (See general mixing procedures).
8. Immediately pour the entire mixed material onto the prepared concrete like a ribbon.

Note: Warmer temperatures and higher humidity will increase the rate at which the mixed materials cure, thereby decreasing working time. Weather conditions may require you to stop application. Do not ignore weather condition as it will negatively impact your coating application.

9. Apply in a semicircular pattern in a sweeping motion using a long pole and a one-sided notch trowel. Trowel left to right with the notched side to spread and the flat side to closed.
10. Loop roll the coating. This will evenly disperse the aggregate and bring liquid to the top.
11. Broadcast your decorative media into the wet epoxy after the loop-roll has been completed. Toss the decorative media up into the air allowing the material to fall like snowflakes.

Quartz 20-25 mesh: 0.40 - 0.50 lb. per sq.ft. into wet epoxy

Quartz 40-50 mesh: 0.50 – 0.60 lb. per sq.ft. into wet epoxy

1/4" Flakes: 0.10 – 0.15 lb. per sq.ft. into wet epoxy

1/8" Flakes: 0.15 – 0.20 lb. per sq.ft. into wet epoxy

12. Allow the media to set into the epoxy for 12 hours prior to proceeding to the next step.

### NOTE: "Cap Coat" or "Top Coat"

("Cap Coat" is an epoxy and "Top Coat" is a urethane)

Two coats are recommended after the broadcasting is completed and dry. This coat is used to seal in the quartz followed by the use of a final "Cap Coat/Top Coat".

1. Combine and mix CrownShield™ 8320 as a seal coat per manufacturer's guidelines.



- For Quartz broadcasting: Apply a CrownShield™ “Cap Coat” spread rate is 45sq.ft. per gallon over Quartz 20-25 mesh and 100sq.ft. per gallon over Quartz 40-50 mesh.
  - For Flakes broadcasting: Apply a CrownShield™8320 “Cap Coat” or “Top Coat” 100sq.ft. per gallon over 1/8" flakes and 150sq.ft. per gallon over 1/4" flakes.
2. Allow sealcoat to dry for minimum of 12 hours before final topcoat.
  3. If final “Cap Coat” is epoxy, use any CrownShop™–Floor products. Spread to 300sq.ft. per gallon.
  4. Mix the CrownShop Floor products as instructed. (Basic mixing procedures)
  5. Apply using flat squeegee left to right, back-roll up and down, final cross roll left to right.
  6. If the final topcoat is CrownCote™– HP or HB is selected for the job, apply CrownCote HP 8100 533sq.ft. per gallon. Apply CrownCote HB 8334 at 320 sq.ft. per gallon
  7. The dip and roll method is recommended for applying the HP 8100. The HB 8334 can be poured out into a ribbon like pattern, squeeze and back-roll.
  8. Combined and mix CrownCote™– HP8100 as instructed. Pour into a deep paint tray. The HP 8100 has to be rolled tight.
  9. Using an 18" or 9" 3/8" non-shed rollers. If a 9" roller cover is used, hook the 9" cover onto a double hung roller frame. Dip the roller into the tray. Remove excessive material out by roller along the deep tray well.
  10. Roll the dipped material left to right, no puddling, keep the material tight. Heavy deposit will foam when cured.
  11. Back-roll up and down using the dipped 3/8" non-shed roller.
  12. Dip into the material tray as needed. Do not allow the roller to be covered or fully saturated with urethane, as it will leave a heavy deposit.
  13. Final cross roll left to right as needed to eliminate any roll lines or puddling. Proper back rolling is all that is required. If cross-rolling, then cross roll the entire floor. Do not spot cross roll.
- Allow the final “Cap Coat/Top Coat” product to cure 24 hours for foot traffic and 7 to 14 days for full cure.

## **Steps for Making Trowel Grade (3 quarts of liquid to 25 lbs of quartz)**

**CrownCove™ product no. 8312 (3 quarts of liquid to 25lbs of quartz. ETG: Epoxy Trowel Grade**

1. Apply a concrete prime coat CrownShield WB 8313 as instructed in “Basic Mix Procedure”.
2. Lightly broadcast 70 mesh quartz into the wet CrownShield™– WB 8313. Broadcast 1/2 lb. of 70 mesh quartz per 10sq.ft.
3. Allow prime coat to dry minimum of 4 hours.

4. Build a thick Epoxy mortar trowel grade: 2:1 mixture. Measure out 2qts. of CrownCove™ 8312 (Part A) Resin and 1qt. of CrownCove™ 8312 (Part B).
  5. Mix Part A and Part B well using a slow speed drill with a 3.5" Jiffler mixing blade for 60 seconds in a 1 gallon bucket insuring to scrape the sides until not streaking occurs.
  6. Transfer the mixed material into a 5 gallon METAL PAIL and immediately start mixing.
  7. Slowly add 24-27lbs. Quartz (1/2 gallon of 40 mesh (8lb) and 1 gallon of 25mesh (16lb)). Mix for another 3 minutes. Cautions: Warmer aggregate and/or epoxy can shorten the pot life. A thorough blending is mandatory.
  8. Weather conditions may require you cease application. Do not dismiss weather conditions 12 hours prior and 12 hours after installation.
  9. Pour the entire material onto the primed broadcasted substrate. Pour a 4" ribbon along the starting point.
  10. Use 3"x12" finish trowel on a long pole, spread the material left to right and right to left. When the edge of the ribbon has been reached, pull the materials from top down along the edge of the wall or along the end point.
  11. When the trowel pulls from the coating surface or the surface is difficult to level, the trowel has become sticky. Wipe the trowel down with Xylene or blend solvent to help "smooth/close" the "Trowel Grade" properly to reduce aggregates porosity.
  12. Trowel marks may become visible and considered undesirable. Shine a bright light parallel to the finish surface to reveal trowel marks readily so that the applicators can smooth it out. Check for floor coating thickness frequently.
  13. Once the material is smooth and evenly troweled, use an 18" or 9" loop roller, loop roll up and down to bring epoxy resin to surface for self-sealing.
  14. Allow material to cure 24 hours for light foot traffic. 7- 14 days for full chemical resistance.
- NOTE: For a larger tight trowel mix slowly add 32lbs. of Quartz (3qt. 40 mesh (12lb) or 5qt. 25 mesh (20lb.) into the premeasured 3qts. of A/B epoxy and mix all together for 3 minutes. This mortar mix is designed for stand-alone decorative finish or decorative patching.
- IMPORTANT: for wet on wet application. Apply the "Trowel Grade" while the primer is slight wet/tacky. (To avoid sticky substrates, lightly broadcast 70 mesh quartz into primer and allow to set. This will enable applicators to work easier without tracking wet primer all over the floor, especially when fancy designs are desired.)
15. If a final topcoat is needed, apply CrownCote™- HP 8100 at 533sq.ft. per gallon. For other top coat options, refer to our Performance Top Coats on page 6 of these guidelines.
  16. Dip and Roll method is recommended for applying CrownCote HP 8100. This topcoat has to be rolled tight.
  17. Combined and mix CrownCote HP 8100 as instructed. Pour into the deep paint tray.
  18. Using an 18" or 9" 3/8" non-shed rollers. If a 9" roller cover is used, hook the 9" cover onto a

double hung roller frame. Dip the roller into the tray. Remove excessive material out by roller along the deep tray well.

19. Roll the dipped material left to right, no puddling, keep the material tight. Heavy deposits will form when cured.
20. Back-roll up and down using the dipped 3/8" non-shed roller.
21. Dip into the material tray as needed. Do not allow the roller to be covered or fully saturated with the urethane as it will leave a heavy deposit.
22. Final cross roll left to right as needed to alleviate any roll lines or puddling. Proper back rolling is all that is required. If cross-rolling, then cross roll the entire floor. Do not spot cross-roll.
23. Allow the final top coat product to cure for 24 hours for traffic and 7 to 14 days for full cure.

## **DISPOSAL**

Dispose all excess materials, packaging, and other waste in accordance with federal, state, and local regulations.

## **LIMITED WARRANTY**

Crown Polymers warrants its products to be free of manufacturing defects and meets all Crown Polymers current published physical properties. Crown Polymers' sole responsibility shall be to replace the portion of any product proved to be defective. There are no other warranties by Crown Polymers of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Crown Polymers shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Crown Polymers shall not be responsible for the use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee pertaining to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator will be issued. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Crown Polymers reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

## **DISCLAIMER**

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