

## SYSTEM DESCRIPTION

ROLL ON ROCK® 1 Day System is a multi-layer epoxy flooring flake system that is designed to provide the look of granite to flooring surfaces while delivering substrate protection. It is a high build floor coating that is low in VOC and is in compliance with the strictest SCAQMD Rules in the country. It consists of a colored epoxy primer that wicks deep into the concrete floor surface, creating an incredible bond that will be able to withstand up to 8lbs of MVE (moisture vapor emission). Roll on Rock® uses colorful flakes to achieve a beautiful multi-color finish with a clear Polyaspartic Topcoat to exhibit incredible high gloss while providing extreme chemical and wear resistance.

## SYSTEM COMPOSITION

The Roll on Rock® 1 -Day System is a multi-layered application made up of the following components:

PRODUCTS	Coverage Rate (will vary depending upon the size of flake used)
1. <b>4195 Direct to Concrete Epoxy</b> - A pigmented primer and flake basecoat applied to concrete substrates	150-250 SF per 1-gal
2. <b>41 Accelerator</b> - Additive packs that can be mixed with 4195 to speed up its cure rate	1-2 packs per gallon
3. <b>Flakes</b> - Decorative flakes available in variety of color blends	500 SF per 50lb box
4. <b>5085 Ultra High Solid Polyaspartic Topcoat</b> - A high solids clear Polyaspartic topcoat that exhibits great chemical and excellent wear resistance while providing a high-build & high-gloss surface in one coat that can be walked on in 3-12 hours (3 hours for warmer days and longer for cooler days)	150-175 SF per gal kit

## SUBSTRATE REQUIREMENTS

### CONCRETE

All concrete shall be clean and bare. Concrete shall be structurally sound and stable. Concrete shall be free of dust, dirt, grease, contamination, surface laitance, and other potential bond-breaking substances that could impair adhesion. All cracks, gouges, and other surface defects need to be addressed prior to coating installation. Substrate and ambient temperatures must be above 35°F during installation of coating. Relative humidity should not exceed 65% during installation of the coating. Environmental conditions must not be near the dew point during installation of the coating. Moisture Vapor Transmission of the substrate must not exceed 8lbs per 1000 SF per 24 hours. For high MVT substrates, consult with a VBP representative for recommendations.

If concrete is not porous (doesn't darken when wet), it must be mechanically profiled and prepared by shot-blasting, grinding, or other means of scarification to produce a Concrete Surface Profile (CSP) between #2 and #4, according to International Concrete Repair Institute (ICRI) Guideline No. 03732.

### OTHER SUBSTRATES

VBP only recommended its Roll on Rock® system for use over concrete. All other substrates are done at the user's own risk.

## ADVICE BEFORE INSTALLATION

### MIXING PRODUCTS

4195 and 5085 are 2-component products, be sure to mix thoroughly before the application. Cure times will be affected by environmental conditions. Do not force dry. High humidity and/or low temperatures can cause haziness and blushing in the coating. Large masses of mixed and/or heated material will have a shorter pot-life. If you are not familiar with the product, Do Not Mix more than 1 kit at a time. The more you mix, the shorter your pot life (working time) will be.

### USING 41 ACCELERATORS

- 1 pack of 41 Accelerator per 1 gallon of 4195 will provide up to 50 mins pot-life and 6 hrs dry-time at 75°F.
- 2 packs of 41 Accelerator per 1 gallon of 4195 will provide up to 40 mins pot-life and 4 hrs dry-time 75°F.

Please note that when the pot-life kicks, it will be fast and become unusable very quickly. It is recommended to mix a small amount of material first for cutting in, etc. until you become more familiar with the system performance in your local climate.

#### **HOT WEATHER TIPS**

4195 / 5085 has a shorter pot life in very hot conditions. Keep the material core temperature around 50-75°F if possible. icing the buckets hours before doing job or placing in a cool environment the day before application can help by lowering the core temperature. If instructions are not followed, excessive heat may cause outgassing, foaming and hazing of 5085 where it has been applied too thick or where material settles into joints, etc. as well as a shorter pot life. To reduce the effects of outgassing (vapor coming out of the substrate), install when the temperature is dropping from the highest temperature of the day.

#### **COLD WEATHER TIPS**

4195 and all Epoxies are temperature sensitive. The colder the temperature, the longer the dry and cure times will take. Adding Solvent to the product will also slow the dry times.

4195 / 5085 will have higher viscosity or may gel up in very cold conditions. Keep the material core temperature around 50-75°F if possible. Using a pail warmer hours before doing the job or placing product in a warm environment the day before application can help increase the core temperature which will make the material thinner and easier to work with. If instructions are not followed, material may get very thick during mixing and may lead to foaming and hazing of 5085 where it has been applied too thick (avoid puddling in low spots) or where material settles into joints.

## **INSTALLATION STEPS**

### **1. SURFACE PREPARATION**

There are many methods of surface preparation for various substrates, many of which are adequate for this application. Consult a VBP Representative for alternatives to the procedure outlined below, and methods of correcting problematic and contaminated substrates.

#### **Concrete -**

Pour water onto the concrete surface. Inspect area to see if water penetrates concrete (concrete will darken). If the concrete allows water to penetrate then proceed to clean the surface using V-100 concrete cleaner degreaser. Use liberal amounts on oils stains and scrub until the water no longer beads on stain (if water still beads on oil then burn it off using a small torch and then prime entire area with 4100 epoxy primer as listed in the 4100-install guide). If water beads when doing the penetration test, then the following additional preparation will be needed. Concrete must be mechanically profiled and prepared by shot-blasting, grinding, or other means of scarification to produce a Concrete Surface Profile (CSP) between #2 and #3, according to International Concrete Repair Institute (ICRI) Guideline No. 03732.

### **2. PREPARATION**

- Shut off all sources of ignition prior to work, and throughout the coating process.
- Supply auxiliary ventilation as necessary to produce a safe working environment.
- Use a NIOSH approved respirator capable of filtering organic vapors.
- Because 5085 has such high gloss, be sure to vacuum and remove dust from areas during application.
- Use a brush, 18" Lint Free 3/8" Nap roller, or squeegee (preferable Magic Trowel for 5085) for application.

### **3. 4195 EPOXY PRIMER + 41 ACCELERATOR APPLICATION**

#### **Thinning -**

Advantages of thinning 4195 are a lower viscosity which makes it easier to roll and an extended pot-life. 4195 can be thinned with up to a ½ pint of Xylene or Acetone. However, this will slow the cure times.

*\* Caution: Thinning with Xylene will increase the VOC of 4195 by 55g/L, which makes it non-compliant for residential use in the SCAQMD District. Check your local district rules before using Xylene, otherwise use Acetone. Solvents are extremely flammable, be sure that all containers are metal, and all sources of ignition have been turned off.*

Adding 41 Accelerator will shorten the pot-life. Be careful of not mixing a large amount if you are not familiar with the product.

#### **Mixing -**

- Material should be at room temperature (50-75°F).
- Mix 4195 EPOXY A-Component with 4195 EPOXY B-Component at ratios listed on the label while slowly adding the 41 ACCELERATOR for 2-3 minutes using a jiffy-type mixing blade at no less than 700rpm.

- Transfer mixed material to a second mixing vessel and mix an additional minute to ensure that material along the sides of the first mixing vessel have been properly incorporated into the mixture. Be sure to mix thoroughly.

**Application -**

- Working only as much wet edge as can be properly handled.
- Begin by cutting-in the concrete footings and edges with a brush.
- Do not work edges more than 15-20 minutes ahead of the main body of the floor.
- Pour a band of the mixed material out onto the floor and begin rolling with a 3/8" -1/2" nap roller.
- Work the material evenly to a wet film thickness of 5-8mils (200-250 SF/ 1gal kit).
- Right after laying about 2 kits of 4195 and using the same roller used to apply the 4195, go out onto the wet floor (be sure to wear spikes) and dry roll the 4195 (which should not take any longer than 2-3 minutes for a 2-kit area). This will cause the 4195 to tack up in areas that it may be drying and make the flaking look more uniform. The chips will adhere more evenly to the 4195 when using this method.

**4. FLAKE APPLICATION**

**Note -**

Wait at least 15-20 minutes (from 4195 application) before throwing the flakes. When you throw the flakes too soon, you risk the chance of the primer wicking up into the chip as well as the concrete. If this occurs, then the edges of the flake may have a transparent look. Your goal should be to throw the flakes within 20 minutes of the first application of 4195 to the area.

**Broadcast Flakes -**

- FLAKES should be broadcast into the wet 4195 while the coating still has a high degree of tackiness (15-20 min after applying the 4195).
- Use spiked shoes when walking into wet material while broadcasting the flakes.
- Scoop the flakes up with your hand and spread onto the surface by throwing the flakes to rejection, releasing them from your hand (like feeding chickens or throwing grass seed).
- Throwing to rejection typically means that you will not be able to see the Epoxy color beneath it.

**Flake Recovery -**

- Once the 4195 has dried sufficiently, reclaim the loose Flake by sweeping, blowing, and/or vacuuming excess FLAKES from the surface.
- Scrape protruding flakes and remove all loose flake debris from the surface.
- Recovered FLAKES may be used on a subsequent job but should be sifted through to remove small broken flake/dirt and debris. Re-Claimed Flakes should be Labeled accordingly.
- The Flaked surface can be lightly sanded if a smoother finished is desired.
- Don't be afraid to scrape really hard with this system, the smoother you get the flake, the thicker the topcoat will look when done.

**Flaking Tip -**

Do the curb walls first, and then sweep up the remaining chips from the floor before doing the field. This is a trick that when done properly will save time and back breaking energy. Using large flake also reduces the amount of topcoat needed since there is less surface area due to the flatness of the chip and less layering of the chip.

**5. 5085 POLYASPARTIC TOPCOAT APPLICATION**

**Note -**

Allow the 4195 PRIMER to cure a minimum of 4-6 hours before proceeding to the next step.

**Mixing -**

- Material should be stored at room temperature (50-75°F).
- Mix 5085 A-Component with 5085 B-Component at ratios listed on container for 2-3 minutes using a jiffy-type mixing blade at no less than 400rpm.
- Take extra care to not entrain air into the mix, when done mixing the product should have a clear appearance. If not mixed correctly the material will not be clear and have a white hue to it due to the foam created by aggressive mixing.
- Transfer mixed material to a second mixing vessel and mix an additional 30 seconds to ensure that material along the sides of the first mixing vessel have been properly incorporated into the mixture. Be sure to mix thoroughly.
- 5085 has a pot-life of 55 minutes based on a 2-gallon mass at 75°F.

*\* Caution: Unlike Epoxy, this Polyaspartic material has a long pot-life in the container than on the floor (keep the mixed material in pail to achieve maximum working time instead of pouring bands on the floor.*

**Application -**

- After mixing, cut in edges/curb with a 3-4-inch chip brush and or 6" weenie roller.
- Be careful not to make the cut in lines too wide. If the cut in lines are too wide and it takes too long to squeegee material across, it may start to dry. If you then seal over that it may look darker with now two coats of sealer on it.
- Then pour a 4"-5" even ribbon of 5085 across the floor.
- Use Magic Trowel squeegee to spread 5085 out evenly so the entire surface is coated.
- Pour out additional ribbons on the surface as needed and make sure to keep a "Wet Edge" at all times.
- Walk back into the wet floor on spiked shoes to disperse any heave puddles of material that are pooling.
- Keep firm pressure on the trowel when spreading.
- Once 5085 is spread out evenly with the squeegee, use an 18" Lint Free Roller to back roll the entire surface, keeping spread rate at 160 SF/gal. This will even out the gloss across the entire floor and should be done in the opposite direction you squeegee.
- You will have an open time on the floor of approx. 30 min to back roll the 5085.

*\* Caution: If back-rolled too late or over rolled as the product is setting or tacky, it may cause micro bubbles in the coating due to the coating setting up and becoming too thick to release bubbles caused by excessive rolling.*

**Cure Times -**

- Coating can typically accept light foot traffic in 3-12 hours depending upon ambient Temperatures, vehicular traffic with pneumatic tires in 72 hours.
- Full cure occurs in 5-7 days.
- Pilot lights and surrounding sources of ignition may be put back into service once solvent vapors have dissipated to a level below the lower explosion limit. Typically, this will take 8-16 hours after floor installation with adequate ventilation.

**6. CLEAN-UP**

- Immediately cleanup splatter marks and tools with MEK or Acetone. Clean hands and exposed skin with mild soap and water, and/or citrus based hand-cleaner.

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**ADDITIONAL CAUTIONS AND RECOMENDATIONS**

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- If concrete is extremely porous a 2<sup>nd</sup> coat of the 4195 may necessary to hold the Flake.
- If the Primer coat wicked in too deep into the concrete (happens on very porous floors), then the floor may have some bare spots where the flake did not stick. You can use a small amount of clear coat and touch up those areas by Broadcasting Flake on to the bald area. Let it dry then Re-Scrape before applying the final topcoat to all areas.
- Do not force dry any components of the Roll on Rock® system.
- Mask all areas that need protection.
- Always wear protective clothing, gloves and equipment as required by OSHA and as necessary.
- Have all personnel who come in contact with liquids read The Versatile EPOXY, URETHANE, AND POLYASPARTIC 2K SAFETY GUIDE and Material Safety Data Sheets before commencing work.
- Use an 18-inch non-lint roller to help speed the application and uniformity of material.
- Be sure to back-roll the topcoat to ensure a uniform coat.
- Do not allow material to puddle.
- Use accelerators when installing in cold climates or where the return to service time needs to be fast tracked.
- Turn off all sources of ignition if working with 5085 topcoat and follow safety guidelines listed in product sections.
- Store material at 50-75°F.

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**TECHNICAL SERVICES**

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- Technical services can be obtained by contacting VBP directly at 714-829-2600.