



ROLL ON ROCK™ INSTALLATION GUIDE

SYSTEM 2 ONE DAY SYSTEM

PRODUCT DESCRIPTION

This ROLL ON ROCK® system is an ultra low VOC Floor Coating System that is installed in 4-6 hours. This 1 Day System is built on our most popular system which we introduced in 1999. This system will result in fewer failures typically associated with a typical Polyaspartic system because the 4195 penetrates and sticks better, hands down! Additionally, it goes beyond the strictest AQMD Rules in the country and will be less harmful to the ozone than other higher VOC Systems found in the market place. ROLL ON ROCK® is a two step broadcast flake system designed to provide the look of granite flooring surfaces while providing substrate protection from Abrasion, Wear, Vapor Emissions and Chemical Attack. System 2 uses a direct to concrete epoxy that wicks into the concrete and creates an incredible bond that will be able to withstand more than 6 lbs of MVE. System 2 can be done in two applications under most circumstances. For extra high build looks, consider using our 5205 topcoat primer option. This only adds about 20-30 minutes to the application process for a 2 car garage.

PRODUCT COMPOSITION

The ROLL ON ROCK™ system 2 is a multi-layered application made up of the following components:

- 1) 4195 EPOXY – a pigmented primer and flake basecoat applied to concrete substrates.
- 2) 41 ACCELERATOR – Additive packs that can be mixed with the 4195 to speed up its cure rate.
- 3) BROADCAST FLAKES – decorative flakes available in a variety of color blends.
- 4)
 - 4-A) 5205 *OPTIONAL 1ST THIN TOPCOAT – a clear fast drying primer topcoat that seals the flake and dries fast so the 5073 can be applied over it in 20 minutes. This creates a thicker looking clear topcoat without the need to come back and do another trip.
 - 4-B) TOPCOAT: (use flammable safety precautions when working with this product)
5073 POLYUREA – a high solids clear Polyurea topcoat that exhibits great chemical and excellent wear resistance while providing a deep high gloss surface that can be walked on in as little as 2 hours.

COVERAGE RATES AND PACKAGING

4195 PRIMER	225 ft/Kit/Gal	Sold as 1 -Gallon Kit
41 ACCELERATOR	1 to 2 Packs per Gal	Sold as 4 Ounce Jar
FLAKES	~8-10 ft/lb	Sold in 50lb boxes
*OPTIONAL 5205 THIN TOPCOAT	600 ft/Kit	Sold as 1.5 -Gallon Kit
	400 ft/Gal	
5073 POLYUREA TOPCOAT	500 ft/Kit	Sold in 2.0- Gallon Kit
	250 ft/Gal	

SUBSTRATE REQUIREMENTS

Concrete

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 32°F (0°C) during installation of coating. Moisture Vapor Transmission of the substrate must not exceed 6lb per 1000 ft² per 24 hours. For high MVT substrates, consult with a Versatile Building Products representative for recommendations.

Other Substrates

Versatile Building Products only recommends its 2 component products for use over concrete. All other substrates are done at the users own risk.

STEP 1) SURFACE PREPARATION

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

Concrete

The concrete needs to be profiled mechanically to produce a Concrete Surface Profile (CSP) between #2 and #3, according to International Concrete Repair Institute (ICRI) Guideline No. 03732. At a minimum, the concrete shall be prepared by grinding with a 7000-rpm hand grinder and diamond pad. A typical unsealed floor should take at least 30 minutes for one man to hand grind 450 sq ft. All areas shall show some proof of grinding or equivalent before checking it porosity. Pour a small amount of water onto the concrete surface. Inspect area to see if water penetrates concrete (concrete will darken). If water beads when doing the water test then additional preparation will be required. Clean oil spots by applying V-100 Cleaner/Degreaser in liberal amounts on oil stains and scrub until the water no longer beads on stain.

STEP 2) INSTALLATION OF 4195 AND FLAKE

(Note: Material has a pot-life of 80 minutes for One 1 Day Accelerators and 45 minutes for Two 1 Day Accelerators based on a 1 gallon kit at a temperature of 85°F. **Expect a less potlife when working with a 2 gal mass at the same temperature. Warning: Large masses of mixed and/or heated material will have a shorter pot-life.**)

Thinning

Advantages of thinning the 4195 are a lower viscosity which makes it easier to roll and an extended potlife. 4195 can be thinned with up to a ½ pint of Xylene. CAUTION this increases the VOC of 4195 by 55 g/l which makes it non compliant for residential use in the SCAQMD district, check your

local district rules before thinning. Solvents are extremely flammable, be sure that all containers are metal and all sources of ignition have been turned off.

1 Day 41 Accelerator Packs

Tack Free Time Studies done at 85°F:

1 pack per gal will provide up to 80 minutes of potlife and will be tacky in 120 minutes and dry in 3 hours.

2 packs per gal will provide up to 45 minutes of potlife and will be tacky in 90 minutes and dry in 2 hours.

Similar dry times have also been noted in cooler temperatures. If you want a longer dry time then use 4150 Vapor Stop in place of the 4195.

Please note that when the potlife kicks it will be fast and become unusable very quickly. We recommend that you mix a small amount of material to use for cutting in, etc. until you become more familiar with the systems performance in your local climate.

Mixing

Using a jiffy-type mixing blade at a minimum of 700 rpm, mix according to ratio listed on label of the 4195 A-Component with 4195 B-Component for two minutes while slowly adding the 41 Accelerator Packs. Mix for two minutes and transfer mix to a second mixing vessel and mix for an additional minute (transferring to a second mixing vessel prevents unmixed components clinging to the sides of the first mixing container from being poured onto the floor.)

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 10-15 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 9" x 3/8"-1/2" nap roller. Work the material evenly to a wet film thickness of 8 mils (225 ft/gallon).

Right after laying about 1 kit 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 5 minutes for a 1 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 stick more evenly to the 4195 when using this method. FLAKES should be broadcast into the wet 4195 while the coating still has a high degree of tackiness. Scoop the flakes up with your hand and spread onto the surface by throwing the flakes, 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 color beneath it. Allow the 4195 PRIMER to cure a minimum of 2 hours before proceeding to the next step.

Tip: Wait at least 20 minutes (from the first application) before throwing the flake. If you throw the flake too soon you risk the chance of the 4195 Epoxy 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 45 minutes of the first application of 4195 to the area.

Flake Recovery

Once the 4195 has dried sufficiently, sweep, blow, and/or vacuum 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 to remove small broken flake dust. Chipped surface can be lightly sanded if a smoother finished surface is desired. Don't be afraid to scrape really hard with this system, the smoother you get it the thicker the topcoat will look when done.

Flaking Tips

Do the curb walls first and then vacuum 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. Also flaking to appearance will require less chip and topcoat but this is a learned skill and should not be done by an inexperienced applicator. Using large flake also reduces the amount of topcoat need since there is less surface area due to the flatness of the chip and less layering of the chip.

***OPTIONAL STEP 3-A) INSTALLATION OF 5205 THIN TOPCOAT**

Note: Material has a pot-life of 120 minutes based on an insulated 200 gram mass at a starting temperature of 77°F. Unlike epoxy, the 5205 will have a longer potlife if the material is left in the pail so pour out what will be needed only as needed. *Expect a 45 minute potlife when working with a 2 gal mas at normal temperature.* ***Warning: Unlike Epoxy, this Polyurea material has a long potlife in the container than on the floor (it dries quick when in a thin film).***

Preparation

- Shut off all sources of ignition prior to work and ground all equipment throughout the sealing process.
- Supply auxiliary ventilation as necessary to produce a safe working environment.
- This material causes light headedness, use a NIOSH approved carbon filter respirator capable of filtering organic vapors.

Mixing

Use 3 bucket mixing: Using a jiffy-type mixing blade at a minimum of 700 rpm, mix according to ratio listed on label of the 5205 A-Component with 5205 B-Component for two minutes. Mix for two minutes and transfer mix to a second mixing vessel and mix for an additional minute (transferring to a second mixing vessel prevents unmixed components clinging to the sides of the first mixing container from being poured onto the floor.)

Application

Begin by cutting-in the concrete footings and edges with a brush. Pour a band of the mixed 5205 material out onto the floor and begin rolling a tight coat with a 1/4-3/8" nap roller. All you are trying to do is seal the flake; this will prevent the next coat of 5073 from sinking into the flake so there will be more of it on the surface to provide a very high build appearance. Work the material evenly to a wet film thickness of 2-4 mils (400 ft/gallon). Try and work within the control or expansion joints usually found on concrete floors. Allow the 5205 to dry to a slightly tacky state before proceeding to the next step (no more than 30 minutes). It is ok to walk on the tacky 5205 with spikes, any slight scratching will blend in when topcoated with 5073. If the floor goes beyond tacky and is hard then it will need to be sanded to scuff it up so the 5073 will stick to it. Remember this system is designed for speed so don't take a long break after applying the 5205. You can also use a fingernail test; if it is fairly difficult to leave a fingernail imprint then you must sand or screen the surface before applying the 5073.

STEP 3-B) INSTALLATION OF 5073 POLYUREA TOPCOAT

Note: material cool for 24 hours before the installation, the ideal temperature is 70° F. Cure time is effected by environmental conditions. Do not force dry. High humidity and/or low temperatures can cause haziness and blushing in the coating. Material has a pot-life of 60 minutes based on an insulated 200 gram mass at a starting temperature of 73°F. ***Expect a 40 minute potlife when working with a 2 gal mass at warmer temperatures. Warning: Unlike Epoxy, this Polyurea material has a long potlife in the container than on the floor (it dries quick when in a thin film).***

Preparation

- Shut off all sources of ignition prior to work and ground all equipment throughout the sealing process.
- Supply auxiliary ventilation as necessary to produce a safe working environment.
- This material causes light headedness, use a NIOSH approved carbon filter respirator capable of filtering organic vapors.

Hot Weather Tips

5073 has a shorter pot life in very hot conditions. Keep core temperature to 80 degrees whenever possible; if it is above 80° F bring core temperature down by icing (do this hours before doing job so the core temperature is lowered) or placing in a cool environment the day before application. If instructions are not followed excessive heat may cause a shorter pot life.

Cold Weather Tips

Accelerator 50 may be used to speed the cure of 5073 at lower temperatures. Also, allowing extra induction time of mixed material in the container will also help speed the cure, however this should only be done by experienced applicators.

Mixing

DO NOT THIN 5073! For ideal potlife material should be at a temperature of (70-75° F) or below. Mix the 5073 A-Component with 5073 B-Component at ratios listed on container for 2-3 minutes using a jiffy-type mixing blade at no less than 400rpm. 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. ***Caution, Do Not Mix More than 2 Gallons at a Time. The more you mix the shorter your pot life will be.***

Application

Pour the 5073 from container as needed while leaving the remaining material in the container until needed. Unlike epoxy, 5073 will have a longer potlife when left in the container as opposed to being spread out onto the floor. Apply 5073 mixture to the substrate using a brush, roller, or squeegee at a desired coverage rate. Be sure to cross roll areas to be sure the material is spread evenly. Do not apply at rates less than 175 sq. ft. per gallon or out gassing bubbles may occur. Use spiked shoes when walking into wet material. Because the Polyurea has such a high gloss be sure to remove dust from areas during application. When going over solid color surfaces be sure to back-roll immediately and keep back-rolling to a minimum which will help control micro bubbles.

Cure Times

Allow Topcoat 2-3 hours to dry before recoating, if necessary. Recoating after 16 hours may require de-glossing of the surface by use of a floor buffer. Area may be opened to light foot traffic in 2-3 hours depending on environmental conditions. Area may be opened to light vehicular traffic in 12-24 hours depending on environmental conditions. Chemical resistance will not fully develop for 5-7 days. Protect floor from spills during cure.

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 3-6 hours after floor installation with adequate ventilation.

Clean Up

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

ADDITIONAL CAUTIONS AND RECOMENDATIONS

- Coverage rates may vary.
- Mask all areas that need protection.
- Always wear protective clothing and equipment as required by OSHA and as needed for good safety practices.
- Read Material Safety Data Sheets before commencing work.
- Use spiked shoes when walking into wet material while broadcasting the flakes.
- Use an 18-inch roller to help speed the application and uniformity of the topcoat material.
- Be sure to cross-roll and back-roll the topcoats to ensure a uniform coat.
- Do not allow material to puddle.
- Turn off all sources of ignition if working with 5073 topcoat and follow safety guidelines listed in product sections.