5205 and 5073 Super High Perfomance Clear Topcoat Installation Guide

PRODUCT DESCRIPTION

5205 Hybrid Primer and 5073 Polyurea will provide a clear sealer coat that will provide gloss and abrasion resistance like none other. The combination of these 2 products create a high build clear floor coating that can be installed in hours and walked on a few hours after it has been applied. Use this combination of products to seal over bare or decorative concrete overlays.

PRODUCT COMPOSITION

1) 5205HYBRID PRIMER– a clear deep penetrating fast drying primer designed to be applied to concrete substrates.
2) 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

5205 HYBRID PRIMER	450 ft/Kit 300 ft/Gal	Sold as 1.5 -Gallon Kit
5073 POLYUREA	500-600 ft/Kit 250-300ft/Gal	Sold in 2.0- Gallon Kit

SUBSTRATE REQUIRMENTS

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 50°F (10°C) during installation of coating. Relative humidity should not exceed 80% 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 5lb per 1000 ft^2 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. If going over sealed surfaces like polymer stains or other types of sealer be sure to lightly sand the surface to de-gloss it. Then do a small sample area to check the adhesion before proceeding (do a cross hatch test). 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

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, water-jetting, 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.

STEP 2) INSTALLATION OF 5205 PRIMER

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: Large masses of mixed and/or heated material will have a shorter pot-life***.

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 with a brush. Pour a band of the mixed 5205 material out onto the floor and begin rolling with a 1/4-3/8" nap roller. Work the material evenly to a wet film thickness of 4-5 mils (250-300 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. 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) 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 mas at normal temperatures.*** ***Warning: Large masses of mixed and/or heated material will have a shorter pot-life***.

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
Be sure to coat over the 5205 within 2 hours of it drying. Screen or sand the 5205 if more than 2 hours has passed. 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

- Coat over the 5205 within 2 hours of dry or screen/sand it if more than 2 hours has passed.
- Do not force dry any components of the Roll On Rock™ system.
- Do not coat over concrete with more than 5lbs of MVE.
- 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 material.
- Be sure to cross-roll and back-roll the topcoats to ensure a uniform coat.
- Do not allow material to puddle.
- Use accelerators when installing in cold climates or the return to service time needs to be fast tracked.
- Turn off all sources of ignition if working with 5073 topcoat and follow safety guidelines listed in product sections.