

ROLLED-APPLIED COATING SYSTEMS

Epoxy and Polyspartic

GENERAL RULES

- ✓ Always add (part B) hardener (thinner component) to the pail first. Do not spill or scrape off any liquids onto walls of pail.
- ✓ Use Spiral shaped paint mixer paddle for mixing liquids.
- ✓ Mix coatings at medium speed with variable speed drill or mud mixer, for **1 to 2 minutes**.
- ✓ For re-coating, there is a 24 hr re-coat window for adhesion (chemical bond). If you miss the 24 hr window before re-coating, successive coats shall require a “mechanical bond”; sanding/grinding/abrading the surface.
- ✓ **Lower material, floor and air temperature** shall thicken the resins and retard the curing. (<70F). It may also require addition of thinner (acetone).
Warmer material, floor and air temperature shall thin the resins (>80F), but accelerate cure. Addition of thinner (acetone) shall slow the cure.
- ✓ Epoxy coatings cannot be applied over damp concrete (will not bond to damp surface).
- ✓ Water spilled on epoxy before fully cured hard, it will be stained whitish haze. Full chemical cure is 7 days.
- ✓ When applying a smooth 2 coat system, sand prior to re-coating (*removes small high spots and nubs on the floor*).
 - Use 60 grit sandpaper prior to applying epoxy coat and use 100 grit prior for thin urethanes.
- ✓ **CHECK LOT NUMBERS of RESINS (part A) and Pigments for Topcoats** (*they must be same, or u must box the material to prevent different colors on the floor*)
- ✓ **ALWAYS CHECK 1st/2nd Mix Coverage** and ½ way point, to ensure you are getting the coverage.
- ✓ **USE BLUE TAPE for coatings and wall surfaces, to prevent damage from adhesive.**

JOINTS – Overview

Control Joint: 1/4 “wide or less (saw cut into concrete)

Expansion Joint: >1/4” wide example: FORMED JOINTS such as diamonds around columns

Cracks: *structural* >1/16” hairline < 1/16” (*nonstructural*)

JOINT IDENTIFICATION:

CONTROL JOINTS: .25 inch wide (or less). These are sawcut in new slabs at .125 inch, and eventually widen to .25 inch over time. These require a high performance sealant such as 2-component flexible epoxy or Sikaflex 2c (NS non sag).

EXPANSION JOINTS <.25 inch These joints are designed to accommodate large movement, and require a very flexible sealant such as Sikaflex 2c (NS non sag, or SL self leveling). *Gray or neutral tint base w/ pigment pack.*

JOINTS - FILLING

Sikaflex 2c (NS non sag) Polyurethane Sealant 1.5 gal unit (3 resin: 1 hardener)

SUPPLIES: Mix and Measure pails, spiral paint mixer, duct or blue tape, 2” flexible putty knives, rags, acetone.

COVERAGE: 200 lf/gal 1/4wide x 3/8 inch deep (theoretical)

RATIO: 3 Resin: 1 Hardener

BACKER ROD: Not required with NS (non sag) version of product. SL version requires backer rod.

TAPING JOINTS: apply blue tape (preferred) along edges of joints. Ensure edges lines up exactly along joints.

MIXING: Sikaflex 2c (NS): Remove the hardener pouch and plastic, and pre-mix the resin.

Proportion 3 parts resin to 1 part hardener

PRE-PATCHING HOLES/CRACKS/ROUGH AREAS (if required)

RAPID SET brand products **May be Used for all around PRE-FILLING, PATCHING, SLOPING**

25 LB bag/box, or 55 lb. bags (stocked at Home Depot).

Blue (Cement-All) 9000 psi ultimate strength Apply for small holes and skim coats, from zero to 2 inch thickness

We recommend priming areas with latex concrete bonding agent (by quikrete or sika) for any area less than 1/4 inch thickness.

FOR DEEPER/THICKER AREAS:

Rapid Set- Brown: > ½ inch Use for vertical or flat surface Med size aggregate 7000 psi

Rapid Set- Green: > 2 inch Use for deep areas Stone aggregate 5000 psi

APPLICATION Cement-All *USE OVER BARE CONCRETE ONLY*****

1. Dampen bare concrete surface (use sprayer, spray bottle or masonry brush) Saturated, Surface Dry -- **NO PUDDLES**
(Apply primer coat of latex concrete bonding agent, if less than ¼ inch thickness)
2. Mix 4 parts Cement-All to 1 part cold water.
3. Screed and trowel finish smooth. (Puma-Crete floors/coatings shall adhere to cured material, without abrading/profiling)
4. Over 1/4 inch thickness, you must spray with cool water while it is curing, to keep material cool and prevent cracking.

CURE - 30-60 min at 70 deg F. Surface will lighten in color as it dries.

STEP by STEP APPLICATION INSTRUCTIONS

Breaks, stoppage and slowdowns during the middle of the pour will affect final results. Bathroom breaks should be prohibited during the pour, and once started, work should continue at steady and rapid pace, until the section is completed.

- 1) **PLAN OUT EACH SECTION FOR THE POUR:** Plan an “exit strategy” where the workers will exit the floor and clear their tools, and exit the building.
Tape edges of the floor as needed. Coatings will “bleed” under edge of most tape. “Cut-In” edges with brush or roller whenever possible, to prevent “bleed thru” on edges..
Cover drains/cleanouts and anything that needs to be protected from dripping material. Protect walls with painters plastic as needed.

- 2) **RATIO:** *Always check labels on containers for proper ratio.*

- 3) **COVERAGE:**

Primer coat: 160-200 sf/gal

Topcoat (over sand broadcast): 125-150 sf/gal.

This product may be thinned with up to 10% acetone, in order to increase working time, and achieve additional coverage. *Do not apply over 200 sq ft per gal since it can cause “fisheye” and “pinhole” defects.*

Higher coverage rates over a sand finish will result in rougher profile/texture. e.g.- the thinner the material, and the further the material is “stretched” on the floor, the rougher the texture. 125 sq ft per gal is generally very easy to achieve over a sand finish. However, to achieve a rough non-slip (140 to 150 sq ft/gal), materials and substrate must be warm, 10% acetone thinner added. Materials may be poured out in “ribbon” across the floor, then rolled out completely until rollers are dry. Then pour out next mix in a ribbon approximately 2 ft from the wet edge of the fresh material (onto the dry floor). This enables the applicator to achieve a rough, non-slip texture for wet areas with oil or grease spillage.

- 4) **COLORANT/PIGMENT:** **PC-107 EPOXY: 8 oz per mixed gal**

RESIN (A) is typically clear. For colors, add 8 oz of liquid pigment per gallon of liquids. For very light colors or Polyspartic materials, double the pigment.

IMPORTANT: ensure colorant is pre-mixed before use, and that all colorant has same batch number (or batches must be boxed together). This shall prevent batch to batch color variation, between mixes.

THINNER: Up to 10% acetone may be added for thinning and extending working time. Always use as little as necessary, since acetone may reduce stain resistance, and increase cure time.

- 5) **MIXING:** Make 1 gal batches (1 GAL batches requires 2 man crew---3 will be easier to maintain a wet bead-line and finish roll). Pour the part A (resin) into a five gallon pail or mixer. Scrape the thick remaining resin out of pail using paint stick or paint spatula (*do not wipe off the scraper on inside of the mixing pail*).
-Add colorant if needed.
-Add thinner if required (PC-107 Epoxy or Polyspartic--- up to 10% acetone maximum)
- 6) **APPLICATION:**
IT IS RECOMMENDED THAT AT LEAST 1 ROLLER WEAR SPIKE SHOES DURING THE APPLICATION.
Pour/apply all of the material in the pail onto the floor, immediately after it is completely mixed. Pour material out of the bucket in a 6-8 inch wide ribbon, across the floor.
SQUEEGEE SPREADING: Spread material using a 18 inch black (Unger brand or equal) squeegee on a pole. Using 18" and 9" paint rollers (3/8" nap), first "wet out" your roller covers in the puddle. Next, roll out the material that has been spread with the squeegee, evenly and until uniform.
Pour new batch along edge of previous batch, keeping a "wet edge". **Do not roll into the bead/puddle of material.**
ROLLER SPREADING: If you prefer to apply only with rollers, after the bead of material is poured, roll out the material until it is even and uniform
BACKROLLING:. Once the material has been applied, a roller must cross-roll the material. This final roll will even out any roller lines, drips, uneven areas. The backroller must be just behind the main rollers.
- 7) **OPTIONAL BROADCASTING SILICA (into primer coat)** Using a handheld rotary spreader (or throw by hand), broadcast a light, even layer of silica, to rejection, into the wet primer. Floor must be rolled and leveled prior to sanding. For smaller areas, you may hand broadcast "chicken feed" from 1-2 gal pail. Broadcast from the side of the floor, or wearing spikes walking in the wet floor. (*note: If you broadcast from the "working edge", the finish may be damaged due to uneven sand dispersion.*)
Continue to broadcast until no wet areas remain.
For large areas (>1000 sf)- you may use a powered battery or 110v broadcaster.) In general, wait 5-10 minutes after floor is "settled", to broadcast silica. (do not wait more than 10 minutes, or material may not accept/absorb the silica, resulting in a "bald spot" in finished floor.
- 8) **CLEANUP:** For cleaning any application, equipment, use acetone.
- 9) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- 10) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured. It is best to let the floor remain dry 12-18 hours prior to light foot traffic. (See **Puma-Crete Cleaning Instructions** for more information).

**NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND
LIMITATIONS ON OUR LIABILITY**

*We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may **CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.***