



## PETRA WATERBASED EPOXY RC

advanced coating systems

## TWO COMPONENT DEEP PENETRATING EPOXY

### GENERAL PRODUCT DESCRIPTION

Petra Waterbased Epoxy RC is a two part waterbased high performance epoxy that delivers long pot life and fast cure times. It may be applied as a primer or finish coat, is USDA compliant, and has high chemical resistance. Petra Waterbased Epoxy RC also exhibits higher color stability over other epoxy formulations (both waterbased and 100% solids). It is generally applied at 250-350 square feet per gallon per coat depending on surface condition. Petra Waterbased Epoxy RC is the best choice when a thin, chemical resistant, and fast curing coating is needed. Advantages:

- Self-priming
- VOC compliant (< 40 g/l)
- Fast dry time (<1 hour)
- Seamless flooring system
- Essentially odorless
- Low cost-in-use
- Long pot life, over 2 hours
- Chemical resistant
- Able to be applied over damp concrete
- No amine blush
- Can be applied over ten day old concrete
- High color stability

### PACKAGING

Petra Waterbased Epoxy RC is available in two different kit sizes:

	Part A	Part B
3 Gallon Kit	2 gal.	1 gal.
15 Gallon Kit	5 gal.	10 gal.

PROPERTY	VALUE	REFERENCE
Bond to Concrete	350 psi concrete fails at this point	ASTM D 4541
Taber Abrasion	70-75 Mgs.	ASTM D 4060 CS 17 Wheels
Flammability	Self-extinguishing	ASTM D 635
Pencil Hardness	2 H	ASTM D 3363
Flash Point	>200°F	ASTM D 93
Gloss	98.	ASTM D 523

### COLORS

Petra Waterbased Epoxy is available in clear only. Other colors may be made available on a special request basis.

### APPLICATIONS

- Manufacturing Floors
- Aisle Ways
- Aerospace
- Warehouse Floors
- Auto service
- Food Preparation
- Chemical Flooring
- Retail Establishments
- Walls & Drywall
- Schools and Hospitals

### PRODUCT DATA

Volumetric Ratio:	2 to 1
Solids:	50%
Application Temperature:	65-90°F and 5° above the dew point
Thinning:	Not required
Pot Life:	2-4 Hours
Working time on floor:	10-15 minutes
Cure Time:	1-2 hours (walking) 12 hours (traffic)
Critical recoat time:	14 hours
Shelf life:	12 months
USDA Food and Beverage:	Meets requirements

### CONCRETE PREPARATION

Before the coating is applied, the concrete must be:

- Clean-- Contaminants removed
- Profiled-- Surface etched
- Sound--Cracks repaired

Mechanical preparation is the preferred method of preparing concrete for coating application. Shot-blasting, diamond grinding, scarifying, and scabbling are all acceptable methods. The concrete profile should be approximately 40-60 grit sandpaper after preparation.

### PATCHING

Void, cracks, and imperfections will be seen in finished coating if the concrete is not patched correctly. Patch concrete with Petra Patch. After the patching material has cured, diamond grind patch the concrete. If a non-Petra patching material is used, make sure that it is a two-part epoxy patch. Always test unproven products by applying patch material first, then Petra coating system next. Check to see if bonding is firm.

### MIXING

The mix ratio of Petra Waterbased Epoxy RC is 2 to 1. That is, two parts of A - resin, to one part of B - hardener. Mix the following with a drill and jiffy mixer.

1. For the 3-gallon kit, simply pour the gallon of part B into the 3 1/2-gallon pail containing two gallons of part A and mix for 1-2 minutes.
2. For 15-gallon kits, add two gallons of part A to a clean 5-gallon pail and then one gallon of part B and mix for 1-2 minutes.

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## PRODUCT LIMITATION

Ground level concrete slabs emit moisture vapor. The allowable moisture emissions for concrete is 3 lbs. / 1000 S/F over a twenty-four hour period. If moisture is above this level, then blistering and delamination of coating may occur. A calcium chloride test should be performed to determine concrete moisture level. If moisture levels exceed the 3 lb. limit, a concrete moisture vapor control system should be used first before applying coating system. Please contact Petra technical department for approved systems.

Coating systems are susceptible to cracking if the concrete moves or separates below the coating. Hence, joint and crack treatment should be reviewed prior to coating application. As a general rule, control joints (saw cuts) and random cracks should be saw cut or chased first then filled with Petra Patch or similar approved hard epoxy product. Construction joints (two slabs which meet and hence move) should be treated. After the coating has been applied and cured, saw cut through the coating over construction joints.

## APPLICATION PROCESS

Petra Waterbased Epoxy RC is usually applied in two or more coats at 350-400 square feet (S/F) per gallon per coat. For estimation, use 200 S/F (4 mils) to 150 S/F (5 mils) as a coverage rate. The following is for a two coat system:

1. Always apply in descending temperatures. Concrete is porous and traps air. Ascending temperatures (generally mornings), can cause out gassing in the concrete. It is safer to apply coatings in the late afternoon, especially for exterior applications. Optimum ambient temperature should be between 65-90°F and must be at least 5° above the dew point during application.
2. In very hot and dry conditions, pre-wetting the concrete with a pump up sprayer will help with application. Apply only enough water to darken the concrete but do not leave any standing water (damp dry).
3. Mix 3 to 6 gallons of coating using the above mixing instructions.
4. Apply approximately 300-400 S/F per gallon by pouring out on to the surface in a ribbon or small puddles. Then spread evenly using a window squeegee

## APPLICATION PROCESS (CONTINUED)

5. Using a 3/8" non-shedding phenolic (plastic) core paint roller, roll coating forwards and backwards. Do not allow puddles in low spots, cracks, and divots. Brush out excess material.
6. Lastly, backroll in the opposite direction from step 5. Pull resin fairly thin while completely wetting out concrete and uniformly covering the surface. Keep a wet edge and as soon as the coating is uniform on the floor leave it alone and do not go back to touch up.
7. After the first coat is cured enough to walk on (4-24 hrs.), apply second coat by repeating steps 1-6.

## CLEANUP

Petra Waterbased Epoxy RC while in a liquid state may be cleaned up with water and degreaser. Otherwise a strong solvent like acetone may be required while the epoxy is setting up.

## WARRANTY

Petra Industrial Polymers products are warranted for one year after date of application. Please refer to the Petra Industrial Polymer's Limited Material Warranty for additional clarification.

## SAFETY

Consult Petra Waterbased Epoxy RC material safety data sheet. Avoid Petra Waterbased Epoxy RC contact with eyes and skin. Some individuals may be allergic to epoxy. Protective gloves and clothing are recommended.



Information expressed in this data sheet is correct to the best of our knowledge. The technical data sheet does not constitute a warranty, expressed or implied as to the performance of this product. The use and application of this product is beyond our control. Warranty and liability therefore is limited to the replacement only for defective materials. Technical information is subjected to change without cause.

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