



## PETRA PRIME

advanced coating systems



### TWO COMPONENT DEEP PENETRATING EPOXY PRIMER

#### GENERAL PRODUCT DESCRIPTION

PetraPrime is a two component, deep penetrating epoxy primer which provides an excellent bond coat between the concrete substrate and other Petra high performance coating systems. Its epoxy chemistry provides excellent bonding characteristics and its low viscosity allows for deep penetration into a concrete substrate. Because of the porous nature of concrete, PetraPrime reduces problems associated with out gassing with many coating systems. PetraPrime is generally applied at 300-400 S/F per gallon. Its design features provide for the highest industrial demands. Advantages:

- Low odor
- VOC Compliant - 49 g/l VOC
- Chemical resistant
- Able to be applied over damp concrete
- No amine blush
- Can be applied over ten day old concrete

#### PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	18,400 psi	ASTM C 579
Flexural Strength	9,110 psi	ASTM D 790
Tensile Strength	5,190 psi	ASTM D 638
Bond to Concrete	350 psi concrete fails at this point	ASTM D 4541
Taber Abrasion	67 mgs	ASTM D 4060 CS 17 Wheels
Coefficient of Friction	0.6 minimum	ASTM D 2047
Flammability	Self-extinguishing	ASTM D 635
Hardness, Shore D	84	ASTM D 2240

#### PRODUCT DATA

Volumetric Ratio:	2 to 1
Solids:	95%
V.O.C.	< 50 g/l - 0.4 lb. / gal.
Coverage:	300-400 S/F per gal.
Application Temperature:	65-90°F and 5° above the dew point
Thinning:	Not required
Pot Life:	15-20 minutes
Working time on floor:	20-30 minutes
Cure Time:	6-8 hours (walking) 24 hours (traffic)
Critical recoat time:	24 hours
Shelf life:	12 months
USDA Food and Beverage:	Meets requirements

#### PACKAGING

PetraPrime is available in two different kit sizes:

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

#### 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.

#### MIXING

The ratio of PetraPrime is 2 to 1. That is, two parts of A (resin), to one part of B (hardener). Generally, three mixed gallons is ideal for application. Mix the following with a drill and jiffler mixer.

1. Part A does not require pre-mixing. If using the 15 gallon kit, pour out 2 gallons into an empty 5 gallon bucket which then becomes the mixing bucket. (The three gallon kit allows the Part A bucket to be used as the complete mixing bucket, since the Part A comes in a three and a half gallon bucket.)
2. Add one gallon of part B and mix for 60-90 seconds.
3. Immediately apply to the floor. PetraPrime in mass has a short pot life of approximately 15-20 minutes. Once poured out on the floor, 20-30 minutes of working time can generally be expected.

#### APPLICATION PROCESS

PetraPrime is applied in one coat. For estimation purposes, use 300 to 400 S/F as a coverage rate. (Note: For concrete that has been excessively prepared, a much lower coverage rate can be expected. Testing may be required to determine coverage.)

1. Always apply in descending temperatures. Concrete is porous and traps air. In ascending temperatures (generally mornings), the air expands and can cause out gassing in the coating. It is safer to apply coatings in the late afternoon, especially for exterior applications. Optimum ambient temperature should be between 65-90°F during application.
2. Mix three gallons of resin using above mixing instructions.
3. Apply approximately 300 to 400 S/F per gallon by immediately pouring out on surface in a ribbon, while walking and pouring at the same time until bucket is empty.
4. Using a window squeegee on a pole, pull PetraPrime over substrate. Pull resin as thin as possible while still wetting out concrete and uniformly covering surface. This allows trapped air to escape more easily.
5. Using a 3/8" non-shedding phenolic (plastic) core paint roller, roll coating forwards and backwards.
6. Lastly, backroll in the opposite direction from step 5.

# PETRAPRIME

## CLEANUP

PetraPrime, while in an unreacted state, may be cleaned up with water and degreaser. Isopropyl alcohol, or acetone may be needed once the resin begins hardening.

## WARRANTY

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

## PRODUCT LIMITATIONS

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.

## SAFETY

Consult PetraPrime material safety data sheet. Avoid PetraPrime contact with skin. Some individuals may be allergic to epoxy resin. Protective gloves and clothing are recommended. This product contains flammable solvents. All electrical equipments should be grounded in accordance to the National Guard Code.



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