



COREKOTE POLYMER
CONCRETE
 advanced coating systems



HIGH PERFORMANCE THREE COMPONENT RESINOUS EPOXY

GENERAL PRODUCT DESCRIPTION

CoreKote Polymer Concrete (CPC) is an advanced high performance, three component epoxy resinous concrete. CPC is engineered to withstand a wide range of chemicals (see chart below). CPC is generally applied between 1.5" to 2" nominal thickness. Its design features provide for the highest industrial demands. CoreKote Polymer Concrete has one of the highest ratios of resin to aggregate and is considered the premium system. CPC may be used in conjunction with Petra's metal anchoring reinforcement system (MARS) for added system strength and longevity. Advantages:

- Self-priming
- 0 VOC - 100% Solids
- Seamless flooring system
- Essentially odorless
- Four times harder than standard concrete
- Withstands heavy forklift traffic
- Chemical resistant
- Able to be applied over damp concrete
- Does not amine blush
- Can be applied over ten day old concrete

INDUSTRIAL APPLICATIONS

- Manufacturing Floors
- Berms and Curbs
- Chemical Flooring
- Aerospace
- Waste Water Treatment
- Production Areas
- Chemical Flooring
- Trench and sumps
- Secondary Containment
- Containment Curb
- Equipment Pads

PRODUCT DATA

Volumetric Ratio: 2 to 1
 Solids: 100%
 Application Temperature: 65-90°F
 Thinning: Not required
 Pot Life: 15-20 minutes
 Working time on floor: 20-30 minutes
 Cure Time: 10 hours (walking)
 24 hours (traffic)
 Critical recoat time: 24 hours
 Shelf life: 12 months
 USDA Food and Beverage: Meets requirements

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	11,500 psi	ASTM C 579
Flexural Strength	4,100 psi	ASTM D 790
Tensile Strength	2,100 psi	ASTM D 307
Bond to Concrete	350 psi	ASTM D 4541
Taber Abrasion	concrete fails at this point	ASTM D 4060 CS 17 Wheels
	Loss/1000 Cycles	ASTM D 4060 CS 17 Wheels
Water Absorption	.10% maximum	ASTM D 413
Linear Shrinkage	.01% maximum	ASTM C 531
Flammability	1.2 cm/min	ASTM D 635
Impact Resistance	16 ft. lb. - no failure	Mil-D-3134H
Coefficient of Friction	6 minimum	ASTM D 2047

CHEMICAL RESISTANCE

Acetic Acid	NR	Hydrochloric Acid 37%	R
Alcohol, Ethyl	NR	Nitric Acid 30%	SS
Alcohol, Isopropyl	SS	Phosphoric Acid	SS
Aluminum Hydroxide	R	Skydrol R	R
Citric Acid	R	Sodium Bisulfate	R
Copper Chloride	R	Sodium Chloride	R
Diesel	R	Sodium Hydroxide 50%	R
Ferric Acid	R	Sulfuric Acid 50%	R

Note: The above guide is based on seven days exposure of the listed chemical at 72 degrees F (22 degrees C)
 Key: R = Recommended, SS = Splash and Spill, NR = Not Recommended.
 Above chart serves as a guideline only. Samples will be furnished upon request for testing.

COREKOTE POLYMER CONCRETE

CONCRETE PREPARATION

Before the coating is applied, the concrete must be:
Clean – Contaminants removed
Profiled – Surface etched
Sound – Cracks repaired

Mechanical methods are preferred for preparing concrete prior to coating application. Shot-blasting, diamond grinding, scarifying, and scabbling are all acceptable methods. The concrete profile should approximate 60-80 grit sandpaper after preparation.

MIXING

Ratio of CoreKote Polymer Concrete is 2 to 1. That is, two parts of A (resin), to one part of B (hardener). To mix 1/2 cubic foot, do the following with a drill and jiffler mixer.

1. Pour 53 oz. of part A in a five gallon bucket and premix for 30-45 seconds.
2. Add 27 oz. of part B and mix for another 30-45 second.
3. Mix in approximately 55 lbs. of Part C aggregate and mix for 1-2 minutes until blended.

APPLICATION PROCESS

The best method for application of CoreKote Polymer Concrete is to place CPC into preset forms, screed, and finish troweling. After determining layout and square footage of area, calculate required cubic feet of CPC required for project.

1. Because of the high ratio of resin to aggregate, CPC is self-priming.
2. After the forms have been set, pour CPC into the forms scrapping the sides of the bucket with trowel to empty bucket completely. (Tip: wrap the forms with duct tape for easier removal and reuse of forms)
3. Screed CPC evenly and compacting as much as possible.
4. Wait approximately 10 minutes and finish with trowel. Clean trowel often with denatured alcohol.

COLOR SELECTION

CoreKote Polymer Concrete is available in the following colors: Black, dark gray, and tile red. Other colors are available at an additional charge.

PACKAGING

CoreKote Polymer Concrete is available in two different kit sizes:

	<u>Part A</u>	<u>Part B</u>	<u>Part C</u>
1 Cubic Feet Kit	1.67 gal.	.83 gal.	90 lbs.
3 Cubic Feet Kit	5 gal.	2.5 gal.	270 lbs.

CLEANUP

CoreKote Polymer Concrete while in a liquid state may be cleaned up with water and degreaser. Otherwise a strong solvent may be required while CoreKote Polymer Concrete is setting up.

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 additional clarification.

SAFETY

Consult CoreKote Polymer Concrete material safety data sheet. Avoid CoreKote Polymer Concrete contact with skin. Some individuals may be allergic to epoxy.



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.

CoreKote Polymer Concrete 2of2