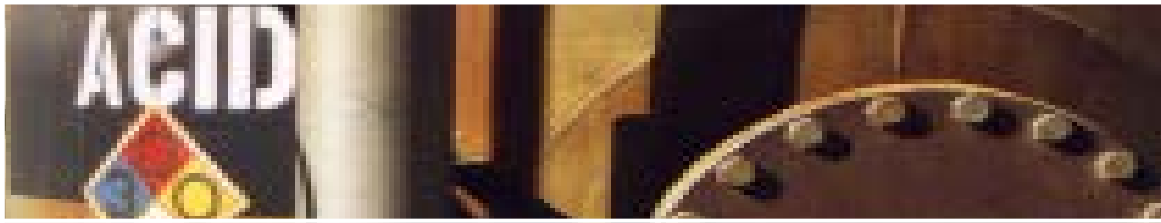
PRODUCT SPECIFICATIONS

PETRA

NovoKote TC

advanced coating systems



CHEMICAL RESISTANT TWO COMPONENT NOVOLAC EPOXY

GENERAL PRODUCT DESCRIPTION

NovoKote TC (Top Coat) is a highly chemical resistant, two component novolac concrete coating system. Its epoxy chemistry provides excellent bonding characteristics. It can be applied as a 16 to 50 mil coating system or as a finish coat over a NovoKote HB or other high build system. Advantages:

- Self-priming
- Resin Rich
- 100% Solids, V.O.C. Compliant
- Nonporous
- Seamless flooring system
- Essentially odorless
- Four times harder than standard concrete
- Withstands heavy forklift traffic
- Chemical and solvent resistant
- Able to be applied over damp concrete
- Can be applied over ten day old concrete

INDUSTRIAL APPLICATIONS

- Chemical Flooring
- Aerospace
- Chemical Storage
- Power Plants
- Trench and sumps
- Hazardous Waste Storage
- Waste Water Treatment
- Plating
- Secondary Containment
- Battery Charging Areas

PRODUCT DATA

Volumetric Ratio:	2 to 1
Solids:	100%
Application Temperature:	50-80°F and 5° above the dew point
Thinning:	Not required
Pot Life:	8-10 minutes
Working time on floor:	10-15 minutes
Cure Time:	2-3 hours (walking) 18 hours (traffic)
Critical recoat time:	24 hours
Shelf life:	12 months
USDA Food and Beverage:	Meets requirements

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	22,400 psi	ASTM C 579
Flexural Strength	15,220 psi	ASTM D 790
Tensile Strength	12,700 psi	ASTM D 638
Bond to Concrete	350 psi concrete fails at this point	ASTM D 4541
Taber Abrasion	Loss/1000 Cycles = 100 mgs	ASTM D 4060 CS 17 Wheels
Flammability	Self-extinguishing	ASTM D 635
Coefficient of Friction	0.6 minimum	ASTM D 2047
Hardness, Shore D	85	ASTM D 2240
Impact Resistance	16 ft. lb. - no failure	Mil-D-3134H
Porosity on un-glazed finish	.00	NACE Stand TM-01-74

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 98%	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.

NovoKote TC

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 the moisture is above this level, then blistering and delamination of the coating may occur. A calcium chloride test should be performed to determine the concrete moisture level. If moisture levels exceed the 3 lb. limit, a concrete moisture vapor control system should be used first before applying a 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 and 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.

COLOR SELECTION

NovoKote TC is available with standard premixed colors or in tint base with pourable pigment color kits. The color kits provides the user with stock versatility. Product left over on one project may be used on another project with a different color requirement by simply changing the color kit.

Note: Darker colors are recommended when using Novolac resins as they are more prone to yellowing than standard epoxy systems. Petra standard colors are: Clear, black, white, light gray, medium gray, dark gray, light beige, dark beige, sand beige, safety red, tile red, pastel blue, light brown, and safety yellow. Other colors are available at an additional charge.

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

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

1. Premix the Part A for 30-45 seconds. Then, 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 another 60-90 seconds. Scrape the sides of the bucket to insure complete mixing.
3. Immediately apply to the floor. NovoKote TC in mass has a much shorter pot life of approximately 15-20 minutes. Once poured out on the floor, the user will have 20-30 minutes of working time

APPLICATION PROCESS

NovoKote TC, for a nominal 16 mil coating system, is applied in two coats and in one pass as a top coat over Novo-Kote HB. For estimation purposes, use 100 S/F per gallon in either case.

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 and at least 5° above the dew point during application.
2. Mix three gallons of resin using above mixing instructions.
3. Apply approximately 200 S/F per gallon (100 S/F per gallon for a top coat over NovoKote TC systems) 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 NovoKote TC over the substrate. As a first coat over bare concrete, pull resin as thin as possible while still wetting out concrete and uniformly covering the surface. This allows trapped air to escape more easily. To apply in a single coat over a Novo Kote HB system, pull at about 100 S/F per gallon.
5. Using a 3/8" non-shedding phenolic (plastic) core paint roller, roll coating forwards and backwards.
6. Lastly, backroll in the direction perpendicular from step 5.
7. Apply a second coat by repeating steps 1-6 the next day.

PACKAGING

Novo Kote TC 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.

CLEANUP

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

WARRANTY

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

SAFETY

Consult NovoKote TC material safety data sheet. Avoid NovoKote TC 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.

Petra Polymers 1610 E. Miraloma Ave, Placentia CA 92870 (T) 714-985-4277 (F) 714-985-9009 www.PetraPolymers.com