XtraFlex TC

advanced coating systems

FLEXIBLE TWO COMPONENT CYCLOALIPHATIC URETHANE MODIFIED EPOXY

GENERAL PRODUCT DESCRIPTION

XtraFlex TC (Top Coat) is a flexible two component, high performance, cycloaliphatic, 100% solids, urethane modified epoxy overlayment and coating system. Its epoxy chemistry provides excellent bonding characteristics with the additional advantage of flexibility.

Advantages:

- Flexible - elongation (80%)
- Provides thermal cycle protection
- Self-priming
- High color stability in an epoxy
- High gloss
- 0 VOC - 100% Solids
- Withstands medium traffic as a thin mil
- Essentially odorless
- No amine blush
- Chemical resistant
- Can be applied over ten day old concrete

PRODUCT DATA

Volumetric Ratio:	2 to 1
Solids:	100%
Coverage:	100 S/F per gal. at 16 mils
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

PACKAGING

XtraFlex 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.

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Tensile Strength	1,550 psi	ASTM D 638
Bond to Concrete	350 psi concrete fails at this point	ASTM D 4541
Coefficient of Friction	0.6 minimum	ASTM D 2047
Flammability	Self-extinguising	ASTM D 635
Hardness, Shore D	55	ASTM D 2240
Flash Point	>200°F	ASTM D 93

INDUSTRIAL APPLICATIONS

XtraFlex TC's unique chemistry allows it to be used in the following applications:

- Flexible finish or base coat
- Plywood substrates
- Decking
- Crack control
- Restaurants
- Schools
- Restrooms and showers
- Hospitals
- Automotive Showrooms

COLORS

XtraFlex TC is available with standard premixed colors or in tint base with pourable pigment color kits. The color kits provide 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.

Petra standard colors are: Natural, black, white, light gray, medium gray, dark gray, light beige, dark beige, sand beige, safety red, tile red, pastel blue, safety yellow, and light brown. Other colors are available at an additional charge.

XtraFlex TC

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.

PATCHING

Voids, 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 XtraFlex TC is 2 to 1. That is, two parts of A (resin), to one part of B (hardener). Generally, three mixed gallons of XtraFlex TC is ideal for application. Mix the following with a drill and jiffler 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.
3. Immediately apply to the floor. XtraFlex TC in mass has a short pot life of approximately 15-20 minutes. Once poured out onto the floor, 20-30 minutes of working time can generally be expected

APPLICATION PROCESS

XtraFlex TC for a nominal 16 mil coating system is applied in two coats and in one pass as a top coat over CoreKote 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 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 CoreKote HB systems) by immediately pouring out on surface in a ribbon, while walking and pouring at the same time until bucket is empty.

APPLICATION PROCESS (CONT.)

4. Using a window squeegee on a pole, pull XtraFlex TC over substrate. As a first coat over bare concrete, pull resin as thin as possible while still wetting out concrete and uniformly covering surface. This allows trapped air to escape more easily. To apply in a single coat over a CoreKote 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 opposite direction from step 5.
7. Apply second coat by repeating steps 1-6 the next day. This step can be eliminated for CoreKote HB and other high build systems.

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 PetraPatch 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.

CLEANUP

XtraFlex TC, 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. Lastly, a stronger solvent may be required if the resin is nearly set 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 XtraFlex TC material safety data sheet. Avoid XtraFlex TC contact with skin. Some individuals may be allergic to epoxy.

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