



# PRODUCT TECHNICAL DATA SHEET

## EPOXY TOP COAT

Advanced Coating Systems

### HIGH PERFORMANCE TWO-COMPONENT CYCLOALIPHATIC EPOXY

#### GENERAL PRODUCT DESCRIPTION

Epoxy Top Coat is a two-component, high performance cycloaliphatic epoxy concrete floor coating system. Its epoxy chemistry provides chemical resistance and excellent bonding characteristics. Epoxy Top Coat can be applied as a 16 to 40 mil coating system, which requires an epoxy primer at 350-400 Sq Ft per gallon. It can also be used as a top coat over an ONYX Build System. Its design features make Epoxy Top Coat the top coating of choice. Add UV Inhibitors to help resist long term color stability. If in need of a fast turnaround time, use Epoxy Top Coat Fast (do not add Epoxy Accelerator to this product).

#### ADVANTAGES

- Essentially Odorless
- Self-Priming
- 100% Solids, 0 V.o.c.
- High Color Stability in an Epoxy
- High Gloss
- Withstands Light to Medium Traffic as a Thin Mil
- Chemical Resistant
- No Amine Blush
- Can be Applied Over 10 Day Old Concrete

#### PRODUCT DATA

Volumetric Ratio:	2 to 1
Solids:	100%
Approximate Coverage:	100 Sq Ft per gallon Per 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

Cure time, pot life, and working time are based on a slab temperature of 70-75 F°, and will change accordingly as temperature changes.

#### PACKAGING

Epoxy Top Coat is available in 2 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
Compressive Strength	18,800 psi	ASTM C 579
Flexural Strength	2,270 psi	ASTM D 790
Tensile Strength	1,560 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
Taber Abrasion	59 mgs	ASTM D 4060 CS 17 Wheels
Flammability	Self-extinguishing	ASTM D 635
Hardness, Shore D	82	ASTM D 2240
Flash Point	>200°F	ASTM D 93

#### INDUSTRIAL APPLICATIONS

- Pharmaceutical
- Food Preparation
- Dairies
- Restrooms
- Kitchens
- Manufacturing
- Aisle Ways
- Bakeries
- Clean Rooms
- Schools
- Laboratories
- Retail

#### COLORS

Epoxy Top Coat is available with standard premixed colors or in tint base in pourable pigment color kits. The color kits provide the user with stock versatility. Product left over on 1 project may be used on another project with a different color requirement by simply changing the color kit. Always check the lot numbers for consistency.

Refer to the ONYX Epoxy Solid Color Chart for standard color selection. Other colors are available at an additional charge.

## SURFACE PREPARATION

Before the coating is applied, the concrete must be:

- Clean – Contaminants removed
- Profiled – Surface mechanically prepared.
- Sound – Cracks repaired

Mechanical methods are required for preparing concrete prior to coating application. If installing as a thin mil system, the concrete should be diamond grinded. Shotblasting might cause translucent zebra stripes, in which case a thicker floor may need to be installed (check per mockup). The concrete profile should be between a CSP 2 - CSP 3.

If installing Epoxy Top Coat over a Build System, take into account the size of aggregate used and the coverage rate of the top coat to achieve desired texture, which will help determine if the Build System needs to be sanded.

## PATCHING

Voids, cracks, and imperfections will be seen in finished coating if the concrete is not patched correctly. The Epoxy Top Coat can be used for patching by adding Konasil to it. Other ONYX products such as Epoxy Grout, Epoxy Grout Fast, and Epoxy Patch Kit can also be used. After the patching material has cured, diamond grind patch flush with the concrete.

## MIXING

The ratio of Epoxy Top Coat is 2 to 1. That is, 2 parts of A (resin), to 1 part of B (hardener). Generally, 3 mixed gallons of Epoxy Top Coat is ideal for application. Mix the following with a drill and jiffy mixer:

1. Premix the Part A for 45-60 seconds until uniform. If using the 15-gallon kit, pour out 2 gallons into an empty 5 gallon mixing bucket. (The 3 gallon kit allows the Part A bucket to be used as the mixing bucket, since the Part A comes in a three and a half gallon bucket.)
2. Add 1 gallon of Part B and mix for 2 minutes. Scrape the sides of the bucket to insure complete mixing.
3. Immediately apply to the floor. Epoxy Top Coat in mass has a much shorter pot life. Once poured out on the floor, 20-30 minutes of working time can generally be expected.

## APPLICATION PROCESS

If installing a thin mil coating, the Epoxy Top Coat must be applied over a thin primer of 350-400 Sq Ft gal. It can then be applied between 50-150 Sq Ft gal depending on desired end result. (Note: lighter colors may need a thicker coverage rate to provide hide. An onsite mockup is recommended.)

If installing the Epoxy Top Coat over a Build System, apply at a coverage rate of 80-120 Sq Ft (gal). When determining the coverage rate, take into consideration the desired textured surface, the grit size of the aggregate broadcasted, and whether the broadcast was sanded.

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 5 degrees above the dew point during application.
2. Mix three gallons of resin using above mixing instructions.

3. Immediately after mixing, pour out the resin onto the surface in a ribbon, while walking and pouring at the same time until the bucket is empty.
4. Using a window squeegee on a pole, pull the Top Coat over the substrate to spread evenly.
5. Using a 3/8", non-shedding phenolic (plastic) core paint roller, roll the coating forwards and backwards.
6. Lastly, back roll in the opposite direction from step 5.

## PRODUCT LIMITATION

Always read ONYX PRODUCT LIMITATION GUIDELINES document prior to installation as the content below is only partial information.

Ground level concrete slabs emit moisture vapor. The allowable moisture emissions for concrete is 3 lbs. per 1000 Sq Ft over a 24 hour period. If moisture is above this level, then blistering and delamination of coating may occur. A calcium chloride test, in accordance with ASTM F1869 Standards, 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 before applying any coating system. Please contact ONYX 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 the coating application. As a general rule, control joints (saw cuts) and random cracks should be saw cut or chased first, then filled with the appropriate patch material. Construction joints (2 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

Epoxy Top Coat, 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

ONYX Concrete Coatings products are warranted for 1 year after date of manufacture. Please refer to the ONYX Limited Material Warranty for additional clarification. Refer to the ONYX General Product Limitation Guidelines.

## SAFETY

Consult Epoxy Top Coat safety data sheet. Avoid epoxy contact with skin. Some individuals may be allergic to epoxy. Always wear protective eyewear, clothing, and gloves. Safety always comes first.

## MAINTENANCE

Refer to the ONYX Maintenance and Cleaning Guidelines.