



## Build Coat Epoxy

### DESCRIPTION

Build coat epoxy is a two component 100% (+/- 1%) solids epoxy colored coating designed for applications where a high build colorfast impact resistant floor is needed.

### RECOMMENDATIONS

Recommended for a build topcoat or basecoat on concrete or masonry. Product is suitable in many chemical exposure environments.

### TECHNICAL DATA

**Solids by Weight:** 100% (+/- 1%)

**Solids by Volume:** 100% (+/- 1%)

**Volatile Organic Content:** Nearly zero lbs./gal

**Standard Colors:** Off white, light gray, medium gray, tile red, and beige

**Recommended Film Thickness:** 12 - 30 mils

**Coverage Per Gallon:** 53 - 130 sqft/gal @ 12 - 30 mils

**Packaging Information:** 3 gal kits (2.9 - 3.0 gal net approximately)

**Mix Ratio:** 12 lbs. (1 gal) part A to 4.15 lbs. (.50 gal) part B (volumes approx.) (standard colors)

**Shelf Life:** 1 year in unopened containers

**Finish Characteristics:** Gloss (70 - 95 at 60° @ Erichsen glossmeter)

**Abrasion Resistance:** Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 32 mg loss

**Flexural Strength:** 5,400 psi @ ASTM D790

**Compressive Strength:** 9,100 psi @ ASTM D695 - 1/2" x 1/2" bars

**Adhesion:** 450 psi @ elcometer (concrete failure, no delamination)

**Viscosity:** Mixed = 1300-2300 cps (typical, most colors)

**DOT Classifications:** Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UNI1760, PGIII"

**Tensile Strength:** 4,800 psi @ ASTM D638

**Ultimate Elongation:** 3.1%

**Gardener Variable Impactor:** 50 n-lb. direct - passed

**Hardness:** Shore D = 80

### CURE SCHEDULE @ 70°F

Pot Life – 1 1/2 gal volume	30 - 50 minutes
Tack Free (dry to touch)	5 - 8 hours

Recoat or Topcoat	8 - 12 hours
Light Foot Traffic	12 - 14 hours
Full Cure (heavy traffic)	2 - 7 days

### APPLICATION TEMPERATURE

60°F - 90°F with relative humidity below 85%

### CHEMICAL RESISTANCE

REAGENT	RATING
xylene	C
trichloroethylene	B
methanol	A
ethyl alcohol	B
skydrol	B
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric acid	C
70% sulfuric acid	A
10% HCl (aq)	C
5% acetic acid	B

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

### PRIMER

Recommended #32-930 - Water Based Epoxy Primer

### TOP COAT

Recommended – #32-936 clear or colored aliphatic urethanes can be used for increased chemical resistance.

### LIMITATIONS

- Color stability or gloss may be affected by environmental conditions such as high humidity, low temperatures, chemical exposure or exposure to certain types of lighting such as sodium vapor lights.
- Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job.
- This product is not UV color stable and may discolor when exposed to UV lighting. Otherwise, the color stability of this product is good. Therefore, a topcoat is optional and

dependent on the environment.

- Light or bright colors may require a suitable primer to achieve a satisfactory hide.
- Substrate temperature must be 5°F above dew point.
- All new concrete must be cured for at least 30 days prior to application.
- Apply a suitable primer before using this product as a coating.
- Review application instructions prior to using.
- Physical properties are typical values and not specifications.

## **PRODUCT STORAGE**

Store product at normal room temperature. Continuous storage should be between 60°F and 90°F. Low temperatures or temperature fluctuations may cause product crystallization.

## **SURFACE PREPERATION**

The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4' x 4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. It is recommended that the product be applied over the epoxy primer part# 32-930 for proper adhesion and coating. See priming.

## **PRODUCT MIXING**

This product has a mix ratio of 12 lbs. (1 gal) part A to 4.15 lbs. (1/2 gal) part B or two parts A to one part B by volume for standard colors. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

## **PRIMING**

A suitable primer should be used before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.

## **PRODUCT APPLICATION**

The mixed material can be applied by brush or roller. However, the material can also be applied by a suitable serrated squeegee (3/16" x 3/16" V-notch for 15 - 20 mil and a 1/4" x 1/4" V-notch for 25 - 35 mil) and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating.

## **RECOAT OR TOPCOATING**

If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. However, all previous coats should be deglossed to insure a trouble free bond prior to application of recoats or topcoats. Colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check for epoxy blushes (a whitish, greasy film or deglossing). If a blush is present, it can be removed with any standard detergent cleaner prior to topcoating or recoating. Many epoxy coatings and urethanes as well as multiple coats of this product are compatible for use as a topcoat.

## **CLEAN UP**

Use xylol.

## **Floor Cleaning**

Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

## **RESTRICTIONS**

Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under "Cure Schedule"). It is best to let the floor remain dry for the full cure cycle.