### POLYUREA



**CS-50** 



## **CONCRETE SAVER® BUILDKOTE**

## **DESCRIPTION AND USES**

BuildKote is a clear VOC compliant, two component, high solids Polyurea primer suitable for use with a variety of topcoats. It can also be used as a basecoat for color aggregate or color flake finishes.

### PRODUCTS

#### SKU DESCRIPTION

283193	Part A (Clear 1 Gallon in 1 Gallon Container)
283191	Part B (Clear 2 Gallons in 3.5 Gallon Container)
283963	Gray Polyurea Universal Tint (Quart)
283964	Tan Polyurea Universal Tint (Quart)
283965	Super Light Gray Polyurea Universal Tint (Quart)
284897	Artic Blend – 3 Gallon Kit*
284808	Winter Blend – 3 Gallon Kit*

\*Made To Order

## RECOMMENDED TOPCOATS

- FinishKote 80
- FinishKote 100
- FastKote UV

## PRODUCT APPLICATION

## READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

#### SURFACE PREPARATION

NEW CONCRETE/PREVIOUSLY COATED CONCRETE: New concrete should be allowed to cure for a minimum of 28 days. The concrete must be structurally sound, dry, and free of grease, oils, dust, curing compounds and other coatings or contaminants (SSPC-SP1). Surface laitance must be removed. Rising moisture vapor emission rate must not exceed 3 lb. per 1000 sq. ft. over a 24 hour period as measured by calcium chloride test method ASTM F-1869.

The application area must be completely free of sealers, oils, dirt, paint, alkali, penetrating sealers, or any foreign materials that would prevent BuildKote from penetrating the concrete surface. The recommended substrate should have a minimum concrete surface profile (CSP) of 2-3 in accordance to the ICRI Guideline No. 03732. Contact ICRI at www.ICRI.org for more information on these surface profiles. Surface must be dry prior to application of BuildKote.

#### MIXING

Both components should be pre conditioned to a minimum of  $50^{\circ}$ F ( $10^{\circ}$ C) prior to use.

Thoroughly mix each component separately before combining.

If only using part of a container, be sure to use a separate mixer blade for each component to avoid cross contamination.

## PRODUCT APPLICATION (cont.)

#### MIXING (cont.)

NOTE: The Part B component uses a moisture scavenger in its formulation to pull out any moisture which may have entered during the filling process. When this occurs, the scavenger settles out as a solid in the container. There is no need to try and mix this hard settled material into the liquid. Keep your paddle mixer above the packed out scavenger and pre-mix as normal. It is still required to pre-mix the material prior to use. Another option would be to transfer the material to a different mixing bucket, then mix as normal.

Pour the Part A and Part B components together in a clean, dry five gallon container and power mix at 500-700 rpm for a minimum of two minutes. Do not entrain air into the mixing. Do not mix more material than can be applied in 20-25 minutes. If using less than a full container, combine the components using a mixing ratio of 1:2 by volume, Part A to Part B.

#### TINTING

Tinting is only to be done after Part A and Part B have been thoroughly mixed. If tinting, add 12% by volume of the selected color Polyurea Universal Tint (1 quart of tint per 2 gallons of activated material). Power mix until a uniform color is achieved.

#### APPLICATION

Apply only when air, material and floor temperatures are between 30-90°F (-1-32°C) and surface temperature is atleast 5°F (3°C) above the dew point. The relative humidity should not be greater than 85%. Do not apply in direct sunlight or when temperature is rising. Colder environmental conditions can slow the cure of BuildKote. Be sure the substrate is completely dry.

Immediately after mixing, pour the material onto the floor in a long, 8 to 12 inch wide stripe.

NOTE: Do not scrape the sides or bottom of the container. Use only the material that flows naturally out of the container. Also, do not turn the container upside down and leave on the floor to drain. Doing so may result with unactivated material from the sidewall of the container being applied. This will cause soft spots in the coating.

Use a rubber squeegee to spread the material out and achieve the 80-200 sq.ft./gal. spread rate. Back roll the material smooth using a %" lint free roller with a phenolic core to smooth out the finish.

If being used as a basecoat for a color aggregate or color flake finish, begin to broadcast the desired amount of aggregate or flake unto the coating as soon as the roller application is completed. Do not do any additional rolling after the broadcasting material. **TECHNICAL DATA** 

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# **CONCRETE SAVER® BUILDKOTE**

## PRODUCT APPLICATION (cont.)

#### THINNING

#### None required.

**NOTE:** If necessary, can be thinned up to 20 percent with acetone or methyl ethyl ketone.

#### CLEAN-UP

Methyl Ethyl Ketone

#### EQUIPMENT RECOMMENDATIONS

ROLLER: Use a high quality  $\frac{3}{2}$  inch lint-free roller with a phenolic core.

BRUSH: Use a disposable natural fiber chip brush, 2-4 inch wide for cut in work.

SQUEEGEE: Contact Rust-Oleum for recommendation.

## PERFORMANCE CHARACTERISTICS

#### **TENSILE STRENGTH**

METHOD: ASTM D412 TYPICAL VALUE: 3600

#### ELONGATION

METHOD: ASTM D412 TYPICAL VALUE: 198

#### TEAR STRENGTH (PLI)

METHOD: ASTM 2240 TYPICAL VALUE: 350

#### FLEXIBILITY (1/8" MANDREL)

METHOD: ASTM D1737 RESULT: Pass

#### IMPACT RESISTANCE

METHOD: ASTM D2794 TYPICAL VALUE: Direct/Reverse, 250/285 inch pounds.

## CHEMICAL RESISTANCE

CHEMICAL	RESULT (77°F/25°C)
Acetic Acid 100%	С
Acetone	C
Ammonium Hydroxide 50%	RC
Benzene	C
Brine saturated H2O	RC
Chlorinated H2O	R
Clorox(10%) H2O	R
Diesel fuel	RC
Gasoline	RC
Gasoline/5% MTBE	RC
Gasoline/5% Methanol	RC
Hydrochloric Acid 20%	R
Hydrofluoric Acid 10%	NR
Hydraulic fluid (oil)	RC
Isopropyl Alcohol	R
Lactic Acid	RC
MEK	NR
Methanol	R
Methylene Chloride	C
Mineral Spirits	RC
Motor Oil	R
MTBE	C
Muriatic Acid 10%	R
NaCI/H2O 10%	RC
Nitric Acid 20%	NR
Phosphoric Acid 10%	R
Phosphoric Acid 50%	NR
Potassium Hydroxide 10%	R
Potassium Hydroxide 20%	R, Dis
Propylene Carbonate	RC
Skydrol	C
Sodium Hydroxide 25%	R
Sodium Hydroxide 50%	R, Dis
Sodium Hypchlorite 10%	R
Sodium Bicarbonate	RC
Stearic Acid	R
Sugar/H20	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	NR
Toluene	RC
1, 1,1-Trichlorethane	C
Trisodium Phosphate	RC
Vinegar/H2O 5%	R
H2O	R
H2O 14 days at 180°F Xylene	R RC

#### **Chemical Resistance: Chart Key**

R=recommended/little or no visible damage RC=recommended conditional/some effect, swelling or discoloration C=Conditional/Cracking-wash within one hour of spillage to avoid affects NR=Not recommended Dis=discolorative

### POLYUREA

### **TECHNICAL DATA**

#### **CS-50**

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# **CONCRETE SAVER® BUILDKOTE**

## PHYSICAL PROPERTIES

		BUILDKOTE
Resin Type		Polyurea
Weight	Per Gallon	9.9 lbs.
	Per Liter	1.2 kg
Solids by Volume		98%
Volatile Organic Compounds		<50 g/l**
Mixing Ratio		1:2 (Part A to Part B)
Induction Time		None required
Pot Life		20-25 minutes
Recommended Dry Film Thickness (DFT)		8-20 mils
Practical Coverage Rate at Recommended DFT		80-200 sq.ft./gal. Coverage rate can vary depending on the texture and porosity of the concrete
Dry Times @ 70-80ºF	Recoat	2-12 hours*
(21-27°C)and 50%	Light Traffic	2-4 hours
Relative Humidity <sup>†</sup>	Full Traffic	24 hours
Shelf Life		12 months
Safety Information		See SDS

Calculated values are shown and may vary slightly from the actual manufactured material.

<sup>†</sup> Extreme cold temperatures may slow cure times.

\* If 12 hour recoat time has elapsed, the coating must be sanded prior to topcoating.

\*\* Calculated Applied VOC

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