

# K A U F M A N

PRODUCT  
INFORMATION

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## SureBond

### Description

SureBond is a high performance, low viscosity emulsion of high molecular weight, internally plasticized acrylic polymers. It is designed for modifying thin sections of cementitious materials, which are used for beautifying and repairing concrete surfaces, and to help bond fresh concrete to existing substrates.

SureBond has the appearance of milk in the liquid state, but when dry it is completely clear and almost invisible. It will not yellow from ultra-violet light, so it can be used outside without color change. SureBond is unique in that it will not soften, nor will it re-emulsify after cured, when exposed to intermittent or repeated applications of moisture. SureBond modified mortars are self-curing, so expensive laborious curing methods are not required.

SureBond offers an alternative to very expensive epoxy and polyester modifiers for concrete. Although strengths are somewhat lower than epoxies, they are considerably higher than unmodified mortars and normally offer more than sufficient strengths at much lower costs. In addition, it offers freeze/thaw resistance, increased bond strength and greater resistance to impact, vibration and thermal movement.

### Uses

SureBond is also ideally suited as a bonding agent between old concrete and either new concrete or cementitious repair mortars. When SureBond is added to cementitious toppings, patches, stuccos, underlayments, paints, slurries, etc. strengths are dramatically improved. Less water is required and the whole mixture is self-curing. It will dramatically enhance performance properties of cementitious binders applied up to 1/2" thick. In addition to increased strengths, the chemical resistance of the modified mortar is greatly enhanced.

When SureBond is used to bond freshly poured concrete or mortar to existing substrates, the two become one. They are intimately and permanently anchored together. Whether you are bonding a new floor to an existing one or bonding subsequently poured concrete for construction joints, improved adhesion is always achieved.

### Features

- Self-curing
- Water & chemical resistant
- Increased strengths
- Multi-purpose
- Will not discolor white cement mixtures
- Reduces maintenance costs
- Interior or exterior use
- Above or below grade
- Superior adhesion
- Does not produce vapor barrier

### Physical Properties

	SureBond modified mortars	plain mortar
Tensile strength, psi	650	100-150
Shear bond strength, psi	1380	50-75
Compressive strength, psi	6300	4200
Flexural strength, psi	365	575
Abrasion resistance % wt. loss	1.8	23.6
Toxicity	nontoxic	nontoxic
VOC Content	0 grams/liter	

### Chemical Resistance

#### Percent Change

Reagent	Days	Change	Change
Running water	28	-2	-5
10% HCL	7	-35	-85
10% Acetic Acid	28	-35	-80
10% H SO	28	-60	-100
5% Citric Acid	14	-2.5	-28
10% CaCl	56	-2	-5
Xylene	28	+2	-4
Gasoline	28	+0.5	-3

All samples are 28 day air cured. Acids generally attack the Portland cement, leaving the latex polymer as the sole binder, which in turn leaves a protective layer on the remaining mortar, thus increasing their acid resistance. Strong solvents will attack SureBond by swelling the polymers and in the case of very strong solvents, finally dissolving the latex away from the sand and cement.

## Compliances

ASTM C-932, Type II  
ASTM C-1059, Type II  
Dye Optional  
SS-C 1302 B, Type II

## Directions

### Surface Preparation:

At time of placement, substrate should be clean of all foreign matter. Sandblast, scarify or properly acid etch smooth surfaces with 15% solution of hydrochloric acid, following all safety precautions. Thoroughly dampen surface to receive mortar but remove all standing water. Brush bonding slurry, prepared as described below, intimately into pores and all edges with stiff bristled brush or scrub broom.

### Mixing Directions:

#### *Bonding Coat:*

Apply topping while SureBond is still tacky. Thoroughly wet prior to application of SureBond. Apply at a rate of 200 ft<sup>2</sup> / gallon.

#### *Slurry Coat:*

94 lbs. of cement, 100 lbs. of washed & dried sand, and 7-8 gallons of SureBond will cover 600-800 ft<sup>2</sup>.

#### *Repair Mortar:*

94 lbs. of cement, 300 lbs. of washed & dried sand, and 5-6 gallons of SureBond will cover 110-120 ft<sup>2</sup> at ½" thick.

\*SureBond must be wet when bonding fresh material. Always pre-mix SureBond and water prior to adding sand and/or cement for a slurry coat or when used with a repair mortar.

## Application

Apply SureBond modified mortars while the bonding slurry, is still plastic. Don't mix more than can be used in that time until the exact set time is determined. SureBond modified mortars should not be troweled as much as unmodified mortars. A hard, steel-troweled finish is almost impossible to achieve.

Avoid over-troweling as this will work the latex to the surface.

Generally, place, allow to sit and give it one pass with a float or trowel. If troweled after the latex has started to set, the mortar will be pulled apart and crack. Do not apply SureBond modified mortar thicker than ½" at any one time. If thicker applications are required, contact your Kaufman Products, Inc. representative.

## Finishing/Curing

Finish the concrete topping applied over SureBond slurries in the normal manner and cure using a high quality cure such as SureCure. Do not cure SureBond modified toppings.

## Packaging

1 gallon jug (4 per case)  
5 gallon pail  
55 gallon drum

## Precautions

SureBond is water resistant. Do not use in applications when that feature is not desired, such as a bonding coat that is expected to re-emulsify when topping is placed on top of it. In that case, use SureWeld. Do not over-trowel SureBond modified mortars. Due to the strong adhesive nature of SureBond, over-troweling or troweling late will work the latex polymers to the surface or cause cracking. Do not use air entraining agents or air entrained cements in conjunction with SureBond when used as an admixture.

Protect from freezing while in the liquid state. If frozen, discard. Do not re-temper a hardened SureBond modified mixture. Clean all equipment with water before SureBond hardens. Toppings modified with SureBond up to ½" thick are self-curing, toppings over ½" should not be modified with SureBond and must be cured with a high quality cure. These thicker slabs benefit from SureBond in a bonding grout. Always add the SureBond to the powder. Minimum application temperature is 40°F Apply only on clean, sound substrate. Surface should be damp, but free of standing water. Shelf life: 2 years. *Read Safety Data before using.*

## Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

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