



## **Novolac Epoxy SA220**

### Product Information

Category: Epoxy Floor System

(Available in Clear and Tinted)

1.5 gal kit

Series 2220

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### **Description and Use:**

Granicrete's Novolac Epoxy is 100% solids multipurpose epoxy designed for strong chemical and strong solvent resistance. It also has higher temperature resistance withstanding temperatures as high as 220°F.

Extreme chemical resistance includes 90-day testing of 70% Sulfuric Acid solution. A 50% solution of Sodium hydroxide lasted 30 days before failure

It can be used as a primer, base coat, or as a topcoat, depending on your need.

Some commonly used areas for its use include containment areas, manufacturing plants, mechanical rooms, warehouses, tank linings (for high levels of chemical and solvent resistance are required), commercial kitchens, waste treatment plants, and high-temperature areas of food and beverage processing plants.

### **Its significant characteristics include:**

- ✓ 100% Solids
- ✓ High Chemical Resistance
- ✓ High Heat Resistance
- ✓ Strength and Durability
- ✓ Low Odor
- ✓ High-Build
- ✓ Superior Adhesion
- ✓ 5-Hour enhanced set time

### **Color:**

Available in clear (slight amber tint), Pewter Grey, Cape Cod Grey, Stone Grey

### **Packaging:**

1 ½ gallon kits

### **Coverage:**

Coverage will vary depending on condition of surface and desired thickness.

As a Coating: 100-300 sq. ft. per gallon (150-450 sf per kit)

Can be mixed to be an epoxy mortar: 1 gallon of epoxy mixed with 5 gallons of silica type sand will yield approximately 3 to 4 gallons of mortar.

### **Inspection:**

Concrete must be clean, dry, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80%

(per ASTM F-2170).

Before starting flooring work, test existing concrete slab to make sure there is no efflorescence or high levels of alkalinity. Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts tend to prevent or destroy the bonding of coatings to the concrete.

The most common form of testing is the use of a wide-range pH paper or tape. Make sure the floors pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is ran and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for an epoxy flooring installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, *Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride*. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained.

A rate of 4.5lbs/1000 ft<sup>2</sup>/24hr period or less is an acceptable amount of vapor pressure for an epoxy flooring installation. If the reading ranges from 4.5lbs to 15lbs, a moisture barrier system such as Granicrete MVEP can be installed to reduce the emissions.

Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. Granicrete International bears no responsibility for failures due to any of the above conditions.

## Surface Preparation:

**Over Concrete Surfaces:** Shot blasting is the preferred method for preparing the concrete. You may prepare by acid etching, floor scrubbing with a nylo-grit brush and water blasting to achieve a clean and uniform surface that feels like 50 grit sandpaper. If acid etching is done, be sure to properly etch and then adequately neutralize by scrubbing and rinsing several times followed by power washing. Prepare the surface so that the product will soak in and properly bond.

**Over existing Epoxy:** Sand the surface with a floor buffer and 100 grit sandpaper, remove debris and wipe with denatured alcohol just before new application.

## Thinning:

As a primer directly to concrete it can be thinned by adding 16oz to 1 quart of acetone per 1 ½ gallon kit. **Do not thin when applied as a coating over existing epoxy.** As a thinned primer roll tightly into concrete to minimize or avoid outgassing pinholes.

## Mixing Tools:

1. Premix each component separately.
2. Mix 2 parts A with 1-part B, by volume, into a clean container. Mix thoroughly with a low speed (400-600 rpm) drill motor for 3-4 minutes. Make sure to scrape the sides and bottom of the container during mixing. The product may be thinned with acetone in which case it must be applied thinly enough to allow solvent to escape (target minimum 300 sf per kit).
3. After mixing is completed, **remove all contents from container within 5 minutes** as epoxy will begin to generate heat and begin to smoke and turn to gel and harden.
4. Spread immediately onto the surface as you have a limited working time of as product is spread of about 10-15 minutes (at 70°F).

## Application:

**Use as a Primer:** Prime the surface by adding up to 10% acetone per 1 ½ gallon kit and directly applying it to the concrete. Do not use any other solvents as they can cause outgassing. Read individual product information sheets. This primer coat should be applied thinly and worked into the surface to help avoid pinholes.

**Use as a coating** over Granicrete MVEP Primer per

As a Coating: Apply within 24 hours after the primer coat.

1. Immediately after mixing, spread a strip of the batch onto the surface along the edges where it will be “cut in”, using a brush or weenie roller.
2. Pour the remaining material near the “cut in” area and spread evenly using a trowel or squeegee and back roll using a 1/4” nap, non-shedding, or mohair roller. A notched trowel or squeegee will help regulate the thickness and a porcupine roller will help to release trapped air and minimize bubbles.
3. Depending on the look, thickness, chemical and abrasion resistance desired, 1 to 2 coats may be applied. A non-skid surface can be achieved by broadcasting and/or back rolling a washed and kiln dried aggregate into the coating.

## Drying Time:

5 hours at 77°F

## Handling Precautions:

Refer to SDS before use

## Slip and Fall Precautions:

A non-skid surface can be achieved by broadcasting and/or back rolling Granicrete SRA (slip reduction additive).

## Limitations:

- Do not apply at temperatures below 50°F or above 90°F.
- After mixing completely (3-4 minutes remove from mixing container and apply to floor)
- Do not apply over concrete with Moisture Vapor Emissions above 4.5lbs/1000 ft<sup>2</sup>/24hr period.
- For interior use only unless protected by an UV resistant coating.
- Concrete must be cured for a minimum of 28 days.
- Solvents added to thin such as acetone will make product combustible or flammable in which case be aware of sparks or open flame.
- If solvent is added, the products must be applied thinly to allow the solvent to escape or proper curing will occur.

## Clean Up:

Uncured material can be removed with a solvent. Cured material can only be removed mechanically.

## Technical Data:

<b>DRY TIME</b>	<b>5 HRS @ 77°</b>
<b>PENCIL HARDNESS</b>	<b>3H</b>
<b>IMPACT RESISTANCE, IN-LB</b>	<b>35/12</b>
<b>DIRECT/REVERSE</b>	
<b>ABRASION RESISTANCE</b>	<b>0.03</b>
<b>1000 CYCLE, WT LOSS GRAMS</b>	
<b>CHEMICAL RESISTANCE</b>	
<b>SULFURIC ACID</b>	
<b>10%</b>	<b>&gt;90 DAYS</b>
<b>30%</b>	<b>&gt;90 DAYS</b>
<b>50%</b>	<b>&gt;90 DAYS</b>
<b>70%</b>	<b>&gt;90 DAYS</b>
<b>HYDROCHLORIC</b>	
<b>10%</b>	<b>24 HOURS</b>
<b>SODIUM HYDROXIDE</b>	
<b>50%</b>	<b>30 DAYS</b>
<b>PHOSPHORIC ACID</b>	
<b>10%</b>	<b>24 HOURS</b>
<b>30%</b>	<b>24 HOURS</b>
<b>AMMONIA</b>	
<b>30%</b>	<b>30 DAYS</b>
<b>ETHANOL, 100%</b>	<b>3 HOURS</b>
<b>METHANOL</b>	<b>3 HOURS</b>
<b>CELLOSOLVE</b>	<b>24 HOURS</b>
<b>ACETONE</b>	<b>24 HOURS</b>
<b>MEK</b>	<b>&lt;3 HOURS</b>
<b>TRICHLOROETHYLENE</b>	<b>3 DAYS</b>
<b>TOLUENE</b>	<b>24 HOURS</b>
<b>JP-4 JET FUEL</b>	<b>&gt;24 HOURS</b>
<b>LACTID ACID 10%</b>	<b>7 DAYS</b>
<b>ACETIC ACID 10%</b>	<b>&lt; 24 HOURS</b>

Wear Personal Protective Equipment

Read SDS before using this product

**DOT Regulated**

**Manufacturer/Distributor Warranty:** As neither the manufacturer nor the distributor has control over the actual installation of this product, the manufacturer and distributor disclaim any and all warranties expressed or implied regarding color shade, appearance, and product performance at and after opening product containers. Manufacturer and distributor recommendations and suggestions are made without guarantee. Conditions of installer's and consumer's use of this product are beyond the control of manufacturer and distributor. Manufacturer and distributor disclaim any liability incurred in connection with the use of this product or information contained herein.