



# Rhino™

## Rhino™ 2200 Pigmented Chemically Resistant Epoxy System for Coatings and Secondary Containment Data Sheet



ISO 9001:2000  
FM62236

### DESCRIPTION:

Premium quality, 100% solids epoxy coatings system specially designed as an industrial self-leveling coating. Contains no solvents (zero VOC) or carcinogens and has minimal odor to assure low toxicity and ease of application. Rhino 2200 also has excellent self-leveling ability and has great bonding ability to new or old concrete. Rhino 2200 has excellent chemical resistance is ideal for secondary containment areas or in areas of high concentrations of chemicals. 8 standard industrial colors available.

### SUGGESTED USES:

- Moisture tolerant concrete primer
- Self-leveling slurry
- Chemical resistant flooring and top coat
- Containment coatings

### TECHNICAL DATA:

Solids by Volume	100%
Volatile Organic Content (VOC)	0lbs/gal
Mixing Ratio	2:1 by volume
Viscosity	Low
Pot Life	25 – 30 min at 77°F
Application Temperature	55°F minimum, 100°F max
Maximum Re-coat Time at 77	24 hours
Dry To Touch at 77°F	2 – 3 hours
Light Traffic at 77°F	12 – 14 hours
Full Cure at 77°F	7 Days

Complies with ACI Standard 503.1 - 4 and ASTM C-881-90 Type I, II, IV, V, VI and VII. Grade 1, Class B,C,D,E and F. Cures in presence of moisture and humidity. Resin non-crystallizing.

### PHYSICAL PROPERTIES OF CURED SYSTEM (CURED 7 DAYS AT 77°F):

Compressive Strength (psi) 5	10,000 – 11,000	ASTM D69
Flexural Strength (psi)	13,000 – 13,800	ASTM D790
Tensile Strength (psi)	7,000 – 8,000	ASTM D638
Tensile Elongation (%)	5.0	ASTM D638
HDT (F)	132	ASTM D648-264
Bond Strength (psi) to concrete	>400, w/ 100% concrete failure	
Water Absorption (% gain) 24 hrs	< 1	
Shore D Hardness	81	

### HOW SUPPLIED:

FOB San Diego, CA. Rhino 2200: 3-Gallon, 15-Gallon and 165-Gallon kits.

### DIRECTIONS FOR USE:

Follow general surface preparation and application procedures specified in ACI 503.1-4.

### CONDITIONS TO AVOID:

- Do not apply to concrete less than 30 days old.
- Do not apply to concrete with curing or sealing membranes.
- Do not apply to base concrete at a temperature less than 50°F

### SURFACE PREPARATION:

Concrete surfaces must be structurally sound and free from contaminants such as dust, oil or dirt. Surfaces must be shot blasted or mechanically abraded to achieve a minimum 5-mil profile. Coated surfaces must be mechanically cleaned and abraded with 60 – 80-mesh sandpaper and approved by the manufacturer before coating. A calcium chloride “dome” test is recommended and hydrostatic pressure must be <5psi before epoxy coatings application. Free-standing water must be removed.

### MIXING:

Thorough and complete mixing is critical, a Jiffy mixer is recommended. First mix each component separately. Proportion each component at the ratio of 2 parts A (resin) to 1 part B (hardener) by volume or, if using 1-gallon kits, pour all of Part B (hardener) into Part A (resin) and mix at 400 – 600 RPM for 3 – 5 minutes. In case of pigmented material, no stripes or color variation should be visible. Use an up and down motion, scraping the mixing container sides and bottom. Mix no more material than may be applied in 20 minutes.

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## PRIMING OF RHINO™ 2200:

Best results are obtained using Rhino 1500 series H2O based epoxy primers first. Rhino 1500 should be applied at a rate of 250 – 300 sq.ft. per gallon. Please refer to Rhino 1500 series data sheets for more information on these systems. Rhino 2200 may be applied as self-priming floor coating. Allow Rhino 2200 primer coat to become tacky before applying overlay or topcoat.

## FLOOR COATINGS:

Rhino 2200 is an excellent bonding, high strength, chemically resistant protective floor coating. It is a low viscosity, self-leveling, moisture insensitive coating. Apply by squeegee, trowel, or roller to desired thickness. A minimum of 15 mils should be applied for best results. Aggregate may be broadcast for additional thickness or slip-resistant quality in coating. Back rolling with a spiked roller will help eliminate any surface defects.

## SLURRIES:

Mix Rhino 2000 parts “A” and “B” thoroughly first, then add 1 part by volume suitable slurry filler (such as “marble-white”) and mix until uniform. Apply the slurry by squeegee.

## CONTAINMENT COATINGS:

Rhino 2200 is perfectly suited for use as a chemically resistant containment coating. Apply a primer coat to surface at a rate of 5 – 7 mils (200 – 250 sq. feet per gallon). Apply additional coats at a rate of 10 – 15 mils (100 – 150 sq. feet per gallon) until desired thickness is reached.

## CHEMICAL RESISTANCE GUIDE: (3 WEEK IMMERSION)

Reagent	% weight gain (loss)
Xylene	0.1
Toluene	2.3
1,1,1 Trichloroethane	0.1
MEK	2.3
EB (Ethylene Glycol Monobutyl Ether)	2.4
Ethyl Alcohol	6.9
Water (de-ionized)	1.2
5% Detergent Solution	0.0
10% Sodium Hydroxide	0.1
50% Sodium Hydroxide	(0.2)
10% Sulfuric Acid	0.01
70% Sulfuric Acid	0.2
10% Hydrochloric Acid	0.1
5% Acetic Acid	2.6
10% Acetic Acid	5.4
Skydrol	(0.03)
Synthetic Gasohol	0.01

## SAFETY PRECAUTIONS:

**Health Considerations: Consult the Rhino Linings® Material Safety Data Sheets.**

This chemical system requires the use of proper safety equipment and procedures. Please follow the Rhino Linings® product MSDS and Safety Manual for detailed information and handling guidelines.

### For Your Protection:

The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. Because of numerous factors affecting results, **Rhino Linings Corporation makes no warranty of any kind, express or implied**, other than that the material conforms to its applicable current Standard Specifications. Rhino Linings Corporation hereby disclaims any and all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of Rhino Linings Corporation for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.

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