



# CITADEL® RG-80X

## DESCRIPTION AND USES

Citadel® RG-80x is a two component, high gloss, UV stable polyaspartic polyurea floor coating for use in industrial and commercial facilities and is designed to be used as a clear finish over broadcast floors. Suitable for both interior and exterior applications. RG-80x can be tinted to finish color.

## PRODUCTS

SKU	DESCRIPTION
10422B	Part A - 5 Gallons
10411B	Part B Fast 0-50°F - 5 Gallons
10424B	Part B Slow 50-90°F - 5 Gallons
10412B	Part B Super Slow 90+°F - 5 Gallons
10404B	4 Gallon Kit Fast 0-50°F
10406B	4 Gallon Kit Slow 50-90°F
10407B	4 Gallon Kit Super Slow 90+°F

## RECOMMENDED PRIMERS

- Polyurea-350
- SLE-100
- Polycuramine
- Ultra-Hydro Stop\*
- Ultra-Hydro Stop H2O\*
- EP-55

\*If there is a moisture issue with the floor, then it must be primed with one of the Hydro Stop Primers.

## PRODUCT APPLICATION

### READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

#### SURFACE PREPARATION

The concrete surface must be free of all dirt, grease, oil, fats, and other contamination. Remove surface contamination by cleaning with Krud Kutter® Cleaner Degreaser, detergent, or other suitable cleaner. Rinse thoroughly with clean, fresh water and allowed to dry.

**NEW 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. Surface laitance must be removed. Concrete must be tested for relative humidity and or rising moisture vapor emission. Rates must not exceed 3 lb. per 1,000 sq. ft. over a 24 hour period as measured by calcium chloride test method ASTM F-1869 or RH in slab must not exceed 75% as tested per ASTM F2170. The preferred method of surface preparation is to mechanically abrade the floor by diamond grinding to achieve a final 80–120 grit finish, reference profile CSP-2 according to ICRI.

## PRODUCT APPLICATION (cont.)

### SURFACE PREPARATION (cont.)

**PREVIOUSLY COATED CONCRETE:** Previously coated concrete must be in good sound condition with the existing coating tightly adhering to the concrete. In addition to the aforementioned cleaning the existing coating must be sanded to dull the finish and produce a slight surface profile. Remove all sanding dust by vacuum.

### MIXING

Both components should be pre conditioned to a minimum of 50° F (10°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.

Pour the Part A and Part B components together in a clean, dry five gallon container and power mix 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 1:1 by volume, Part A (Base) to Part B (Activator).

### TINTING

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.

### EQUIPMENT RECOMMENDATIONS

**ROLLER:** Use a high quality ¾ inch lint-free roller with a phenolic core.

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

### APPLICATION

Apply only when air, material and floor temperatures are between 30-90°F (-1-32°C) and the surface temperature is at least 5°F (3°C) above the dew point and RH less than 75%. Do not apply in direct sunlight or when temperature is rising. Colder environmental conditions can slow the cure of RG80. Variability in these conditions during application may lead to surface defects. For application outside of this temperature range, please contact Rust-Oleum Technical Service.

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



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## PRODUCT APPLICATION (cont.)

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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 100-400 sq.ft./gal. spread rate. Back roll the material smooth using a 3/8" lint free roller with a phenolic core to smooth out the finish.

NOTE: Coverage rate can vary depending on the texture and porosity of the concrete.

**THINNING:** Not normally required. Thin with acetone if needed.

**CLEAN-UP:** Acetone.

## PERFORMANCE CHARACTERISTICS

### TENSILE STRENGTH

METHOD: ASTM D412  
TYPICAL VALUE: 6,000 psi

### COMPRESSIVE STRENGTH

METHOD: ASTM C695  
TYPICAL VALUE: 9,400 psi

### ELONGATION

METHOD: ASTM D412  
TYPICAL VALUE: 100

### FILM HARDNESS, SHORE D

METHOD: ASTM D2240  
TYPICAL VALUE: 78

### GLOSS

METHOD: ASTM D523 @60°  
TYPICAL VALUE: 90+

### TABER ABRASION

METHOD: ASTM 4060, CS 17, 1,000 gram load  
TYPICAL VALUE: Loss/1000 cycles = 28 mg

## CHEMICAL RESISTANCE

CHEMICAL	RESULT
Acetic Acid 100%	C
Acetone	C
Ammonium Hydroxide 50%	RC
Benzene	C
Brine saturated H <sub>2</sub> O	R
Chlorinated H <sub>2</sub> O	R
Clorox H <sub>2</sub> O	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	RC
Methanol	R
Methylene Chloride	C
Mineral Spirits	RC
Motor Oil	R
MTBE	C
Muriatic Acid 10%	R
NaCl/ H <sub>2</sub> O 10%	R
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	R
Stearic Acid	R
Sugar/ H <sub>2</sub> O	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	RC
Toluene	R
1, 1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar/ H <sub>2</sub> O 5%	R
H <sub>2</sub> O	R
H <sub>2</sub> O 14 days at 82° C	RC
Xylene	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



# CITADEL<sup>®</sup> RG-80X

## PHYSICAL PROPERTIES

		RG-80X
<b>Resin Type</b>		Polyaspartic Polyurea
<b>Weight</b>	<b>Per Gallon</b>	9.0 lbs.
	<b>Per Liter</b>	1.1 kg/l
<b>Solids by Volume</b>		80%
<b>Volatile Organic Compounds</b>		<50 g/l**
<b>Mixing Ratio</b>		1:1 (Part A to Part B)
<b>Induction Time</b>		None required
<b>Pot Life</b>		20-25 minutes
<b>Practical Coverage</b>		100-400 sq.ft./gal. Coverage rate can vary depending on the texture and porosity of the concrete
<b>Dry Times @ 72°F and 50% Relative Humidity†</b>	<b>Tack Free</b>	1-2 hours
	<b>Dry Hard</b>	2-4 hours and 24 hours for vehicle traffic NOTE: RG80 Super Slow may require additional cure times of 36-48 hours for vehicle traffic.
	<b>Recoat</b>	2-12 hours*
<b>Shelf Life</b>		12 months
<b>Safety Information</b>		See SDS

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

† Physical properties are based on these environmental conditions. Changes in these conditions may cause times to vary. Extreme cold temperatures may slow cure times.

\* If 12 hour recoat time has elapsed, the coating must be properly abraded and cleaned prior to recoating.

\*\* Calculated Applied VOC

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