



## **CITADEL #21 UC SHOP**

*Technical Data Sheets*

**Base: 8900 ThermaKrete HP Urethane Concrete (pigmented)**

**Broadcast CPS 480 Aggregate**

**Intermediate: PLE-100 Epoxy (pigmented)**

**Top: Poly 1 HD Polyurethane Coating (clear) w/additive**

**RUST-OLEUM®**

# 8900 SYSTEM THERMAKRETE® HP URETHANE CONCRETE

## DESCRIPTION AND USES

Rust-Oleum® 8900 System ThermoKrete® HP is a three component cementitious polyurethane slurry system.

This CPS Type II product is typically installed by factory trained contractors. Be sure you are fully aware of all application procedures and have all the required application equipment available prior to beginning application of this product. Please see application instructions for additional information.

## PRODUCT FEATURES AND BENEFITS

- The essentially odorless and non porous nature of ThermoKrete HP makes it ideal for food and beverage and commercial kitchen applications.
- ThermoKrete is designed to tolerate rapid change in surface temperature typically associated when concrete floors are cleaned by hot water wash. ThermoKrete will withstand the normal expansion and contraction of a concrete floor during a substrate temperature change which can occur during the normal wash down procedures used in the food processing industry.
- Non-porous: Porosity is a common cause of flooring failures. ThermoKrete HP is nonporous and does not require a sealer coat to prevent chemical penetration to the concrete. This slurry system allows the material to completely absorb and flow around the broadcasted aggregate, which eliminates 99% of all porosity. With this benefit and proper application, consistent physical properties will be achieved.
- Not affected by moisture vapor transmission through the concrete.
- Chemical resistance: ThermoKrete HP has excellent resistance to fats, oils, grease, dilute acids and alkalis, and most solvents. Contact your Rust-Oleum representative for additional information.
- Meets USDA requirements for incidental food contact; accepted for use in federally registered Canadian food facilities.

## PRODUCTS

SKU	DESCRIPTION
337190	Tile Red
337157	Light Gray

**NOTE:** Broadcast Aggregate is sold separately. CPS 480 (sku# 314759) is recommended.

## PACKAGING AND COVERAGE

**ThermoKrete HP is available in only one kit size:**

Part A	1 gal. container, partial fill (121.6 fl. oz.)
Part B	1 gal. container, full (128 fl. oz.)
Part C	Approximately 51 lbs. (2.18 kg.) per bag

### COVERAGE RATE

32 sq. ft. (2.97 m <sup>2</sup> ) at 1/4" thickness (250 mils or 6.35 mm)
40 sq. ft. (3.72 m <sup>2</sup> ) at 3/16" thickness (187 mils or 4.76 mm)

## PRODUCT APPLICATION

### SURFACE PREPARATION

#### NEW CONCRETE:

All laitance must be removed by muriatic acid etching or shot blasting. On concrete cured with a curing agent or has a hard steel troweled finish, shot blasting or other methods of mechanical preparation will be required.

**EXISTING CONCRETE:** Concrete must be clean and sound. Old coatings and toppings must be removed. Concrete must be clean and free of previous coatings, oil, grease, wax, paint, and other contaminants. The surface of the concrete must be clean and properly profiled to enable the coating to achieve maximum bond. Water soluble contaminants can be hosed off with water. Some water insoluble materials are difficult to remove and may require sandblasting, scabbling, or other methods of removal.

For either new or existing concrete, when preparation is complete, the surface texture should be similar to 40 grit sandpaper. It should have a profile of CSP-4 to 5 as described by the International Concrete Repair Institute. The tensile strength of the concrete should be a minimum of 300 psi (2.07 mpa). Concrete must be visibly dry at time of application.

### MIXING EQUIPMENT

Use a ½" high-torque drill motor with a CPS #4 mixer.

Important: DO NOT ATTEMPT TO MIX BY HAND STIRRING. Hand mixing will produce inconsistent results and is not an approved method. Bucket mixer not recommended.

### APPLICATION EQUIPMENT

Cam rake / Spike roller

### MIXING

Note: Before starting, ensure the concrete surface, and the ambient air are all at 40-85°F (4-29°C), not recommended for relative humidity above 80%.

**RUST-OLEUM®**

# 8900 SYSTEM THERMAKRETE® HP URETHANE CONCRETE

## PRODUCT APPLICATION (cont.)

### MIXING (cont.)

All material, especially the Aggregate, must be at a minimum of 50°F (10°C) prior to mixing. Allow the aggregate to warm-up above minimum temperature if necessary. Aggregate below this minimum temperature will quickly lower the temperature of the admix and affect application of the coating.

Combine the two liquid components and mix for 30 seconds before adding the Aggregate. Add the entire bag of Aggregate in a smooth uniform flow and continue the mixing until homogenous. Avoid clumps of Aggregate. The total mixing time should not exceed 2½ minutes.

Once mixed, immediately pour onto the floor.

### APPLICATION

After mixing, immediately pour the material onto the floor. Use a cam rake set at either 3/16" or 1/4" (6.35 - 4.78mm.) to spread the material over the required area, then immediately back roll using a spike roller to level and deaerate.

The Broadcast Aggregate (supplied separately, CPS 480 is recommended) is applied **immediately after back rolling**. Broadcast to refusal\* (1/2 lbs./sq. ft). The application of the Broadcast Aggregate must be done before 15 minutes has elapsed since the application began.

Allow the coating to cure, then sweep or vacuum away the excess aggregate.

\*A sparse broadcast may be done, **only on the 1/4" thickness**, if less texture is desired; however some Broadcast Aggregate is required. Failure to do any degree of broadcast may result with the formation of pinholes in the finish.

NOTE: An optional glaze coat can be applied over a full broadcast to aid cleaning and washdown. Use OverKote 8200S. A glaze coat can only be applied over a full broadcast.

NOTE: A 1/4" thickness with a full broadcast of Broadcast Aggregate will provide optimal thermal shock properties. Less coating thickness may result with reduced thermal shock resistance.

NOTE: ThermaKrete HP is a colored polyurethane concrete and batch to batch color consistency cannot be completely guaranteed. It is recommended installations in a continuous area use all kits with the same batch number.

### FREEZER/COOLER APPLICATION

Before returning to service, gradually lower the temperature to 32°F (0°C) and hold for 2 days. Lower temperature in 10°F (5°C) increments. Hold each for 2 days at the temperature before decreasing. Repeat the process until the required temperature is achieved.

## PRODUCT APPLICATION (cont.)

### CLEAN UP

Xylene can be used to remove material from equipment if it is cleaned before the material has started to set up. Otherwise, stronger solvents will be necessary.

### STORAGE

Store material in a dry location at temperatures between 40-90°F (4-32°C).

## PERFORMANCE CHARACTERISTICS

### COMPRESSIVE STRENGTH

METHOD: ASTM C579

RESULT: 7,000 psi (48.26 mpa)

### FLEXURAL STRENGTH

METHOD: ASTM C580

RESULT: 2,500 psi (17.24 mpa)

### TENSILE STRENGTH

METHOD: ASTM C307

RESULT: 900 psi (6.20 mpa)

### BOND STRENGTH TO CONCRETE

METHOD: ASTM D4541

RESULT: Exceeds Tensile Strength of Concrete

### TABER ABRASION1/4

METHOD: ASTM 4060, CS 17, 1000 Cycles

RESULT: 49 mg. loss

### COEFFICIENT OF THERMAL EXPANSION

METHOD: ASTM C531

TYPICAL VALUE: 2.2 x 10<sup>-5</sup> in/in /°F

**RUST-OLEUM®**

# 8900 SYSTEM THERMAKRETE® HP URETHANE CONCRETE

## PHYSICAL PROPERTIES

		8900 SYSTEM THERMAKRETE HP URETHANE CONCRETE
Resin Type		Urethane
Pigment Type		Inorganic Oxides
Solvents		Water
Weight*	Per Gallon	8.83 lbs.
	Per Liter	1.06 kg
Solids*	By Weight	90%
	By Volume	90%
Volatile Organic Compounds*		0 g/l
Recommended Dry Film Thickness (DFT) Per Coat		3/16–1/4" (187-250 mils)
Wet Film to Achieve Recommended Dry Film Thickness		3/16–1/4" (187-250 mils)
Practical Coverage at Recommended DFT		32 sq. ft./kit (0.79 m <sup>2</sup> /l) @ 1/4" thickness 40 sq. ft./kit (0.98 m <sup>2</sup> /l) @ 3/16" thickness
Mixing Ratio		0.95 : 1 Part A to Part B by volume
Induction Period		None
Pot Life@ 70-80°F (21-27°C) & 50% Relative Humidity		15 minutes. Pour onto floor immediately after mixing
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Foot Traffic	10-16 hours
	Full Cure**	24-48 hours
Shelf Life		2 years , for properly stored material and in original unopened containers
Flash Point		>200°F (93°C)
Safety Information		CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. CAUSES EYE AND SKIN BURNS. HARMFUL IF SWALLOWED. MAY CAUSE ASTHMA, SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT SAFETY DATA SHEET (SDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.

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

\*Activated material

\*\* Coating achieves its full physical and chemical resistant properties.

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# CITADEL® PLE-100

## 100% SOLIDS GENERAL PURPOSE EPOXY

### DESCRIPTION AND USES

Citadel® PLE-100 General Purpose Epoxy is an epoxy-based coating system that provides outstanding customer value. Its great value, slower dry time, and low odor formulation makes PLE-100 General Purpose Epoxy ideal for larger indoor application areas.

### PRODUCT FEATURES AND BENEFITS

- Versatile - Direct to Concrete
- Low odor 100% solids
- Tenacious adhesion
- Chemical resistant
- Compliant nationwide with near zero VOC

### PRODUCTS

SKU	DESCRIPTION
388944	Light Gray 3-Gallon Kit
382563	Light Gray 15-Gallon Kit
388945	Armor Gray 3-Gallon Kit
382564	Armor Gray 15-Gallon Kit
388946	Dunes Tan 3-Gallon Kit
382566	Dunes Tan 15-Gallon Kit*
388947	Clear 3-Gallon Kit
382562	Clear 15-Gallon Kit*
388948	Custom 3-Gallon Kit
382565	Custom 15-Gallon Kit*

\*Made-to-Order only. Contact Rust-Oleum Customer Service for details.

### PRODUCT APPLICATION

#### READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

#### SURFACE PREPARATION

**NEW CONCRETE:** Laitance must be removed by diamond 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. 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 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. If patching is required, use Fortification Formula concrete repair.

**PREVIOUSLY COATED:** Previously coated surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding or sweep blasting to create a surface profile. PLE-100 General Purpose Epoxy is compatible with most coatings, but a test patch is suggested.

**NOTE:** Concrete must be visibly dry at time of application.

### PRODUCT APPLICATION (cont.)

#### MIXING EQUIPMENT

Low speed drill and spiral mixing wand. Must pre-mix prior to use.

Important: Hand mixing will produce inconsistent results and is not an approved method.

Note: Three gallon kits are packaged in Citadel's new and exclusive All-In-One packaging. Both A and B components are shipped together inside an outer 5 gallon pail that can be used for combining both components at the application site. For best results use narrow spiral paint mixer (SKU:388011) to premix individual components within the 3 gallon kits.

#### MIXING

Note: Before starting, ensure that the material, concrete surface, and the ambient air are all at 50-90°F. Mixing ratio is 2 parts by volume of Part A to 1 part by volume of part B.

Pre-mix both A and B sides prior to combining.

Add part "A" to the mixing container.

Add part "B" to the mixing container and mix for 3 minutes.

#### APPLICATION EQUIPMENT

24" notched squeegee  
18" short nap lint free roller

#### APPLICATION

Mix only what you can squeegee and back roll within 30-45 minutes (approximately 1 gallon of mixed material per crew of two applicators wearing spiked shoes). Do not aerate the mix.

Before starting, ensure that the material, concrete surface, and the ambient air are all at 50-90°F. Do not apply in direct sunlight or when temperature is rising. Wearing spiked shoes, immediately pour mixed PLE-100 General Purpose Epoxy on the floor in ribbons. Spread using a squeegee and then back roll using a short nap lint-free roller. If priming is required, PLE-100 General Purpose Epoxy can be thinned up to 10% by volume with xylene and squeegeed tight to help fill small voids. Refer to recoat window below for best practice when abrading and/or applying subsequent coats.

#### CLEAN UP

Clean Tools and application equipment immediately after use with active solvent like xylene (in SCAQMD use acetone only). Clean spills or drips while still wet with solvent. Dried product will require mechanical abrasion for removal.

**CITADEL® PLE-100****100% SOLIDS GENERAL PURPOSE EPOXY****PRODUCT APPLICATION (cont.)****LIMITATIONS**

Do not apply if water or ice is present. Lower temperatures will slow cure time. Do not store PLE-100 General Purpose Epoxy at temperatures below 50°F or above 95°F. Do not apply to slabs on grade unless a heavy uninterrupted vapor barrier has been installed under the slab. Do not apply PLE-100 General Purpose Epoxy if the floor is subject to moisture vapor drive or hydrostatic pressure. PLE-100 General Purpose Epoxy will yellow upon prolonged exposure to sunlight or high intensity artificial lights.

**PERFORMANCE CHARACTERISTICS****COMPRESSIVE STRENGTH**

METHOD: ASTM C695

RESULT: 7,500 psi @ 24 hours and 9,800 psi @ 7 days

**TENSILE STRENGTH**

METHOD: ASTM D412

RESULT: 4500-5200 psi

**BOND STRENGTH TO CONCRETE**

METHOD: ASTM D4541

RESULT: >600 psi

**TABER ABRASION**

METHOD: ASTM 4060, CS 17

RESULT: Loss/1000 cycles = 36 mg.

**FLAMMABILITY**

METHOD: ASTM D635

RESULT: Self-extinguishing

**WATER ABSORPTION (24 HOURS)**

METHOD: ASTM D570

RESULT: <0.5%

**KONIG HARDNESS**

METHOD: ASTM D4366

RESULT: 120

**TENSILE ELONGATION %**

METHOD: ASTM D638

RESULT: 20-30%

**MONOLITHIC SURFACING**

METHOD: ASTM C722

RESULT: Pass

**IMPACT RESISTANCE**

METHOD: ASTM D2794

RESULT: Pass

**CHEMICAL RESISTANCE**


CHEMICAL	RESULT
Acetic Acid 100%	Y
Acetone	N
Ammonium 30%	Y
Ammonium Hydroxide 30%	Y
Animal Urine	S
Antifreeze	Y
Benzyl Alcohol	S
Brake Fluid	Y
Calcium Hypochlorite (Chlorine)	Y
Chromic Acid 10%	Y
Citric Acid 10%	Y
Clorox	Y
Ethyl Acetate	N
Gasoline	Y
Glycol Ether	N
Hydraulic Fluids	N
Hydrochloric Acid 35%	Y
Hydrofluoric Acid 40%	N
Hydrogen Peroxide 30%	S
Iodine 2%	Y
MEK	N
Methanol	N
Methyl Cellosolve	N
Methylene Chloride	N
Mineral Spirits	S
Motor Oil	Y
Mustard	N
Nitric Acid 20%	S
Nitric Acid 40%	N
Orange Juice	Y
Phosphoric Acid 10%	Y
Phosphoric Acid 30%	S
Phosphoric Acid 50%	S
PM Solvent	Y
Silver Nitrate 20%	Y
Skydrol	S
Sodium Hydroxide 50% (Caustic Soda)	Y
Sodium Hypchlorite 15% (Bleach)	Y
Sodium Hypchlorite 50% (Bleach)	N
Sulfuric Acid 10% (Battery Acid)	Y
Sulfuric Acid 50% (Battery Acid)	Y
Toluene	N
Trichloroethylene (1, 1, 1)	S
Trichloroethylene	N
Windshield Wiper Fluid	Y
Xylene	S

**Chemical Resistance: Chart Key**

Y= Resistant

S= Splash & Spill

N=Not recommended

	<b>TECHNICAL DATA</b>	<b>CDL-29</b>
	<b>CITADEL® PLE-100</b> <b>100% SOLIDS GENERAL PURPOSE EPOXY</b>	

## PHYSICAL PROPERTIES

		PLE-100 100% SOLIDS GENERAL PURPOSE EPOXY
Resin Type		Epoxy Amine
Pigment Type		Varies depending on color
Weight	Per Gallon	8.5-10.8 lbs.
	Per Liter	1.0-1.3 kg
Solids	By Weight	100%
	By Volume	100%
Volatile Organic Compounds*		<10 g/l
Recommended Dry Film Thickness (DFT) Per Coat		8-12 mils
Recommended Wet Film Thickness (WFT) Per Coat		8-12 mils
Practical Coverage (assume 15% material loss)		115-170 sq. ft./gal. Coverage rates will vary based on application method.
Mixing Ratio		2A : 1B
Pot Life		30-35 minutes
Re-Coat Window (Min./Max)		12 hours/24 hours
Dry Times at 77°F (25°C) and 50% Relative Humidity	Touch	4-6 hours
	Vehicle Traffic	48-72 hours
	Full Cure**	7 days
Shelf Life		5 years
Flash Point		>200°F (93°C)
Safety Information		<b>PROTECT FROM FREEZING</b> For additional information, see SDS

\*EPA Method 24 Floor Category

\*\*Coating achieves its full physical and chemical resistant properties.

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

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Form: ARJ-2400  
 Rev.: 070323



# CITADEL® POLYUREA-1 HD

## DESCRIPTION AND USES

Polyurea-1 HD is a high solids, single component Aliphatic Polyurea that provides a high gloss, smooth finish with excellent protection from UV rays, abrasion, and many of today's harshest chemicals. Polyurea-1 HD provides reliable performance in a wide range of temperatures and climate conditions. For a beautiful satin finish, just add our Ultra Durability Plus additive. Ideal for interior, exterior horizontal and vertical use.

## PRODUCT

DESCRIPTION	SKU
Clear 2 Gallon Kit	10607

## PACKAGING

5 gallon bucket containing two - 1 gallon pouches and two stabilizer shots.

## COMPANION PRODUCT

DESCRIPTION	SKU
Ultra Durability Plus Additive	15302

## RECOMMENDED PRIMERS

- EP-55
- Hard Surface Primer
- Ultra-Hydro Stop
- Ultra-Hydro Stop H2O
- SLE-100
- Polyurea-350

## PRODUCT FEATURES AND BENEFITS

- Fast return to service time, can accept vehicle traffic in 24 hours
- UV Stable, excellent chemical and abrasion resistance
- Easy roller application
- One gallon covers 400-500 square feet
- Unlimited Pot Life

## PRODUCT APPLICATION

### READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

#### CONCRETE REPAIR

All spalls and cracks must be chased out and repaired to ICRI standards using an appropriate patching material.

#### 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® Original Cleaner Degreaser, detergent, or other suitable cleaner. Rinse thoroughly with clean, fresh water and allowed to dry.

## PRODUCT APPLICATION (cont.)

### SURFACE PREPARATION (cont.)

NOTE: The substrate must be completely dry prior to application of Polyurea-1 HD. Urethane coatings are sensitive to moisture and can affect proper curing of the coating.

**NEW, UNCOATED CONCRETE:** New concrete must be allowed to cure for a minimum of 30 days before application. In addition to the aforementioned cleaning, the concrete must be further prepared by mechanical grinding or acid etch to remove all laitance and produce a suitable surface profile.

**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. Do not wipe the floor with denatured alcohol or other solvent. If wiping is necessary, use only urethane grade Methyl Ethyl Ketone (MEK).

### MIXING

Both components and environment should be pre conditioned to a minimum of 50° F (10° C) prior to use. Be sure the air and surface temperatures are at least 5° above the dew point. Polyurea-1 HD is moisture sensitive, so be sure the outside of the containers are dry and free of condensation.

Shake the container of Stabilized for one full minute before combining with the Polyurea-1 HD. The components can be mixed in a separate container or mixed in the gallon pouch. After combining the components, power mix at 500-700 rpm for 2-3 minutes. Use an appropriate size mixer and use care to not entrain air into the coating while mixing. Once mixed, the material has a 6 month shelf life.

### EQUIPMENT RECOMMENDATIONS

**ROLLER:** Use a high quality 3/8 or 1/4 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 50-90°F (10-32°C) and the surface temperature is at least 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. Be sure the substrate is completely dry.





# CITADEL® POLYUREA-1 HD

## PRODUCT APPLICATION (cont.)

### APPLICATION (cont.)

Pour out only the amount of material to be used into a roller pan. Unused material can be saved in the mixing container for up to 6 months provided it is properly sealed. Do not return unused material from the roller pan to the mixing container.

Use a 3/8 or 1/4 inch, lint free roller with a phenolic core to roll out the coating. Begin with rolling out a W or M pattern, then cross roll to fill in and smooth out the coating.

NOTE: Do not exceed recommended coverage rate, as film defects are possible.

### THINNING

Not recommended

### CLEAN-UP

Methyl Ethyl Ketone (MEK)

## PERFORMANCE CHARACTERISTICS

### TENSILE STRENGTH

METHOD: ASTM D412

RESULT: 5,500

### ABRASION RESISTANCE

METHOD: ASTM D4060, CS 17 Wheel, 1,000 g load, 1,000 cycles

RESULT: 43

### COMPRESSIVE STRENGTH

METHOD: ASTM D695

RESULT: 12,000

### HARDNESS, SHORE D

METHOD: ASTM D2240

RESULT: 84

### ELONGATION

METHOD: ASTM D412

RESULT: 75

### GLOSS

METHOD: ASTM D23 @ 60°

RESULT: 91+

### COEFFICIENT OF FRICTION

METHOD: ASTM D1894

RESULT: 0.69 Wet, 0.80 Dry

## CHEMICAL RESISTANCE

CHEMICAL	RESULT (77°F/25°C)
Acetic Acid 100%	RC
Acetone	R
Ammonium Hydroxide 50%	RC
Benzene	RC
Brake Fluid	RC
Brine saturated H <sub>2</sub> O	R
Chlorinated H <sub>2</sub> O	R
Clorox (10%) H <sub>2</sub> O	R
Diesel fuel	RC
Gasoline	R
Gasoline/5% MTBE	R
Gasoline/5% Methanol	R
Hydrochloric Acid 20%	R
Hydrofluoric Acid 10%	RC
Hydraulic fluid (oil)	RC
Isopropyl Alcohol	R
Jet Fuel (JP-4)	R
Lactic Acid	RC
MEK	NR
Methanol	R
Methylene Chloride	C
Mineral Spirits	R
Motor Oil	R
MTBE	C
Muriatic Acid 10%	R
NaCl/H <sub>2</sub> O 10%	R
Nitric Acid 20%	R
Phosphoric Acid 10%	RC
Phosphoric Acid 50%	NR
Potassium Hydroxide 10%	R
Potassium Hydroxide 20%	R, Dis
Propylene Carbonate	RC
Skydrol	RC
Sodium Hydroxide 25%	R
Sodium Hydroxide 50%	R, Dis
Sodium Hypochlorite 10%	RC
Sodium Bicarbonate	R
Stearic Acid	R
Sugar/H <sub>2</sub> O	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	R
Toluene	R
1, 1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar/H <sub>2</sub> O 5%	R
H <sub>2</sub> O 14 days @ 82°	R
Xylene	NR

### 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

		<b>TECHNICAL DATA</b>	<b>CDL-14</b>
		<b>CITADEL®</b> <b>POLYUREA-1 HD</b>	

## PHYSICAL PROPERTIES

		POLYUREA-1 HD
<b>Resin Type</b>		Aliphatic Urethane
<b>Weight*</b>	<b>Per Gallon</b>	9.59 lbs.
	<b>Per Liter</b>	1.1 kg
<b>Solids By Volume</b>		90%
<b>Volatile Organic Compounds*</b>		<50 g/l*
<b>Practical Coverage Rate</b>		400 sq.ft./gal. Coverage rate can vary depending on the texture and porosity of the concrete
<b>Dry Times at 72°F (22°C) and 50% Relative Humidity†</b>	<b>Recoat**</b>	4-12 hours***
	<b>Light Traffic</b>	4-6 hours
	<b>Full Traffic</b>	24 hours
<b>Shelf Life</b>		18 months unopened 6 months once the Stabilizer/Tint has been added
<b>Flash Point</b>		>200°F (93°C)
<b>Safety Information</b>		See SDS

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

† Dry times will be increase if temperatures are less than 65° F (18°C) and /or Relative Humidity is less than 50%.

\* Calculated applied VOC

\*\* As temperature, humidity, and dew points rise, re-coat windows are drastically shortened. Please contact Tech Service for recommended installation practices.

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

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