CITADEL® EP 55

DESCRIPTION AND USES

Citadel® EP 55 is a two component, water-based epoxy primer designed to improve the adhesion of floor coatings over difficult to coat, or marginally prepared substrates. Substrates include, hard-troweled concrete, aluminum and various types of tiles. EP 55 primer can be top coated with most types of floor coating technologies including acrylic, epoxies and polyurethanes.

PRODUCT FEATURES AND BENEFITS

- Alternative to traditional mechanical and chemical surface preparation
- Excellent as a primer/basecoat for warehouse line striping, zone marking, solid color and decorative floor coatings including metallic systems
- Can be top coated after 5 hours and before 7 days without sanding
- Compatible with most floor coating technologies
- VOC compliant nationwide

PRODUCTS

SKU	DESCRIPTION (120 fl. oz. Kit)
354982	Flat Black
355235	Flat White

NOTE: Kits contain Base and Activator.

PRODUCT APPLICATION

READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

SURFACE PREPARATION

New concrete should be allowed to cure for 30 days before application of any coating. Remove oil, dirt, grease and other chemical contaminants by cleaning with Krud Kutter® Pro Concentrated Cleaner Degreaser, detergent or other suitable cleaner and rinse with fresh water. Existing coatings should be well bonded and sound.

Previously coated floors need to be in good condition with proper adhesion to the concrete substrate. Check the adhesion of the previous coating by cutting a small X in the coating using a sharp razor knife. Firmly apply a piece of 2" duct tape over the center of the X cut; then pull off with a fast snap. The coating is suitable to topcoat if no significant previous coating is removed beyond the X cut. If the coating fails this test, additional surface preparation is required.

PRODUCT APPLICATION (cont.)

MIXING

Combine the base and activator components. Power mix the material using a 3" Jiffler Mixer or Hanson Plunge Mixer. Mix at 500-750 rpm for 2-3 minutes, making sure a uniform color is achieved. Do not delay the application. The useable pot life is 45 minutes. Do not mix more material than you plan to use within the listed pot life.

NOTE: It is not unusual for a soft settle of the base component to occur. Adequately power mix the base component separately to fully reincorporate the material prior to combining with the activator.

APPLICATION

Apply only when air and surface temperatures are between 50-85ºF (10-29ºC) with the surface is at least 5ºF above the dew point and the relative humidity is below 85% during and after application. Use a good quality, lint free ⅜" nap roller with a phenolic core. A brush may be used for cutting in along walls. Avoid excessive film thickness.

DRY AND RECOAT TIMES

The coated floor will be ready for foot traffic in 4-6 hours. Allow 5 hours prior to application of the desired finish coat. The finish coat must be applied within 7 days.

COVERAGE

Approximately 250-350 square feet per activated gallon.

CLEAN-UP

Tools and equipment should be washed in warm soapy water before the product starts to cure. Accidental splashes of components prior to mixing can only be removed with MEK.

Form: ARJ-1887
Rev.: 012720

EPOXY	TECHNICAL DATA	CDL-03

CITADEL® EP 55

PHYSICAL PROPERTIES

		EP 55
Resin Type		2-Component Water-based Epoxy
Pigment Type		Titanium Dioxide, Carbon Black
Solvents		Water
Weight*	**Per Gallon**	11.9 lbs.
	Per Liter	1.43 kg
Solids*	**By Weight**	67%
	By Volume	53%
Volatile Organic Compounds*		0 g/l
Mixing Ratio		4:1 base to activator by volume
Induction Period		None required
Pot Life		45 minutes
Recommended Dry Film Thickness (DFT) Per Coat		2.0-3.0 mils (50-75µ)
Wet Film to Achieve DFT (unthinned material)		4.0-6.0 mils (100-150µ)
Practical Coverage at Recommended DFT (assumes 15% material loss)		Approximately 250-350 sq.ft./gal. (6.2-8.6 m^2/l)
Dry Times at 70ºF (21°C) and 50% Relative Humidity	**Foot Traffic**	4-6 hours depending on the porosity of the substrate
	Apply Finish Coat	After 5 hours and before 7 days
	Full Cure	7 days
Shelf Life		2 years (unopened containers)
Safety Information		For additional information, see SDS

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

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Form: ARJ-1887
Rev.: 012720

CITADEL® SLE 100™

DESCRIPTION AND USES

SLE 100™ is a two component, 100% solids, cyclo-aliphatic hybrid coating system that has exceptional adhesion properties to concrete substrates. Due to its unique chemistry, this coating exhibits great flexibility, working times and self-leveling properties while offering great chemical resistance as well. Low odor makes it a great choice for interior applications.

PRODUCT FEATURES AND BENEFITS

- Emits virtually no odors and can be applied indoors
- VOC Free
- 60 minute pot life
- Convenient 2 parts A :1 part B mixing ratio
- Serves as both a primer and basecoat in 1 coat
- 100% solids formulation
- Exhibits great self-leveling properties with a built in shine

PRODUCTS

SKU	DESCIPTION (3-Gallon Kit)
10255A	Dunes Tan
10257A	Light Gray
10259A	Super Light Gray
10254A	Navy Gray
354976	Black
355294	White
10232BB	Clear

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

NEW CONCRETE: Laitance must be removed by diamond grinding or shot blasting. On concrete that has been cured with curing compounds or has had a hard steel troweled finish, shot blasting, sandblasting or other methods of mechanical preparation will be required. New concrete should be cured for a minimum period of 28 days at 70°F prior to application.

PRODUCT APPLICATION (cont.)

SURFACE PREPARATION (cont.)

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, 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 60-80 grit sandpaper or ICRI CSP Level 2 or 3.

Concrete must be visibly dry at time of application.

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.

MIXING

Note: Before starting, ensure that the material, concrete surface, and the ambient air are all at 60-90°F. Mixing ratio is 2 parts A to 1 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 60-90 seconds.

THINNING

None required.

NOTE: If necessary, can be thinned with xylene.

APPLICATION

Apply only when air, material and floor temperatures are between 60-90°F (15-32°C) and the surface temperature is at least 5°F (3°C) above the dew point and RH less than 85%. SLE 100 can be applied by roller working from a roller pan or it can be poured directly onto the floor in a ribbon and spread out with an ⅛ inch or ¼ inch notched squeegee, then back roll the material smooth using a 3/8" lint free roller with a phenolic core to smooth out the finish.

To ensure proper film thickness is achieved, the coverage rate should not exceed 100 sq. ft./gallon.

Form: ARJ-2097
Rev.: 091820

CITADEL® SLE 100™

PRODUCT APPLICATION (cont.)

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.

PERFORMANCE CHARACTERISTICS

COMPRESSIVE STRENGTH

METHOD: ASTM C695
TYPICAL VALUE: 7950 psi

TENSILE STRENGTH

METHOD: ASTM D412
TYPICAL VALUE: 4500-5200 psi

BOND STRENGTH TO CONCRETE

METHOD: ASTM D4541
TYPICAL VALUE: Exceeds tensile strength of concrete (concrete fails first)

TABER ABRASION

METHOD: ASTM 4060, CS 17, 1,000 gram load
TYPICAL VALUE: Loss/1000 cycles = 55 mg

FLAMMABILITY

METHOD: ASTM D635
TYPICAL VALUE: 1.2 cm./min.

COEFFICIENT OF FRICTION

METHOD: ASTM D2047
TYPICAL VALUE: 0.77 unglazed

FILM HARDNESS, SHORE D

METHOD: ASTM D2240
TYPICAL VALUE: 85

IMPACT RESISTANCE

METHOD: ASTM D2794
TYPICAL VALUE: Direct/Reverse, 85/65 inch pounds

KONIG PENDULUM HARDNESS

METHOD: ASTM D4366
TYPICAL VALUE: 125

This product complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized. Meets USDA requirements for incidental food contact.

CHEMICAL RESISTANCE

CHEMICAL	RESULT
Acetic Acid 100%	R
Acetone	R
Ammonium Hydroxide 50%	RC
Benzene	RC
Brine saturated H_2O	R
Chlorinated H_2O	R
Clorox(10%) H_2O	R
Diesel fuel	R
Gasoline	R
Gasoline/5% MTBE	R
Gasoline/5% Methanol	R
Hydrochloric Acid 20%	RC
Hydrofluoric Acid 10%	RC
Hydraulic fluid (oil)	RC
Isopropyl Alcohol	R
Jet fuel (JP-4)	R
Lactic Acid	RC
MEK	RC
Methanol	R
Methylene Chloride	C
Mineral Spirits	R
Motor Oil	R
MTBE	C
Muriatic Acid 10%	R
NaCl/ H_2O 10%	R
Nitric Acid 20%	RC
Phosphoric Acid 10%	RC
Phosphoric Acid 50%	C
Potassium Hydroxide 10%	R
Potassium Hydroxide 20%	R, Dis
Propylene Carbonate	R
Skydrol	R
Sodium Hydroxide 25%	R
Sodium Hydroxide 50%	R
Sodium Hypchlorite 10%	R
Sodium Bicarbonate	R
Stearic Acid	R
Sugar/ H_2O	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	RC
Toluene	R
1, 1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar/ H_2O 5%	R
H_2O 14 days at 82° C	R
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® SLE 100™

PHYSICAL PROPERTIES

		SLE 100
Resin Type		Amine Cured Epoxy
Weight[1]	**Per Gallon**	8.5-10.8 lbs./gal.
	Per Liter	1.0-1.3 kg
Solids by Volume[1]		100%
Volatile Organic Compounds[1]		<50 g/l (0.42 lbs./gal.)
Mixing Ratio		2:1 (Part A to Part B, by volume)
Induction Time		None required
Pot Life†		60 minutes @ 70°F (21°C)
Recommended Dry Film Thickness (DFT) per Coat		16 mils
Practical Coverage at Recommended DFT		Approximately 100 sq.ft./gal.
Dry Times @ 70-80ºF (21-27°C) and 50% Relative Humidity	**Recoat**	12-48 hours
	Light Traffic	12-16 hours
	Vehicle Traffic	36-48 hours
	Full Cure[2]	7 days
Shelf Life		5 years
Flash Point		>200°F
Safety Information		See SDS

[1]Activated material
[2]Coating achieves its full physical and chemical resistant properties.
Calculated values are shown and may vary from the actual manufactured material.
† Pot life is affected by air temperature and the amount of material activated.

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 50º F (10º C) prior to use. Be sure the air and surface temperatures are at least 5º 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.

Form: ARJ-2099
Rev.: 071420

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 H2O	R
Chlorinated H2O	R
Clorox (10%) H2O	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/H2O 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 Hypchlorite 10%	RC
Sodium Bicarbonate	R
Stearic Acid	R
Sugar/H20	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	R
Toluene	R
1, 1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar/H2O 5%	R
H2O 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

Form: ARJ-2099
Rev.: 071420

CITADEL®
POLYUREA-1 HD

PHYSICAL PROPERTIES

		POLYUREA-1 HD
Resin Type		Aliphatic Urethane
Weight*	**Per Gallon**	9.59 lbs.
	Per Liter	1.1 kg
Solids By Volume		90%
Volatile Organic Compounds*		<50 g/l*
Practical Coverage Rate		400 sq.ft./gal. Coverage rate can vary depending on the texture and porosity of the concrete
Dry Times at 72°F (22ºC) and 50% Relative Humidity†	**Recoat****	4-12 hours***
	Light Traffic	4-6 hours
	Full Traffic	24 hours
Shelf Life		18 months unopened 6 months once the Stabilizer/Tint has been added
Flash Point		>200°F (93°C)
Safety Information		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 65º F (18ºC) 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.

CITADEL®
POLYUREA 3 WB

DESCRIPTION AND USES

Citadel® Polyurea 3 WB is a High Solids premium water-based two-part high performance urethane coating which utilizes aliphatic urethane polymer technology. It provides excellent film hardness, chemical, abrasion and UV resistance. Polyurea 3 WB can be applied directly to many surfaces without the need of a primer, i.e., concrete, wood, aluminum and galvanized metal. The coating is widely used to provide a high gloss or matte finish to concrete floors, food & beverage and pharmaceutical facilities.

Recommended for interior and exterior environments including; cafeterias, clean rooms, healthcare facilities, manufacturing plants and warehouses. This product also has anti-graffiti barrier coat properties.

PRODUCT FEATURES

- User friendly – Easy to mix two component system with a 60 minute pot life
- Excellent chemical, abrasion and UV resistance
- UV stable and non-yellowing: colors are available in a gloss finish, clear is available in gloss and matte finishes
- VOC compliant nationwide

PRODUCTS

DESCRIPTION (Kit)	SKU
Polyurea 3 WB Gloss Dunes Tan	356272
Polyurea 3 WB Gloss Light Gray	356271

PACKAGING: 1 gallon can of base and a quart of activator.

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

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. 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.

PRODUCT APPLICATION (cont.)

SURFACE PREPARATION (cont.)

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. Polyurea 3 WB is compatible with most coatings, but a test patch is suggested. Concrete must be visibly dry at time of application.

WOOD: Sand new wood to remove any surface contaminant and to lower grain. Previously finished wood should be sanded to provide good adhesion. Test patches are recommended.

ANTI-GRAFFITI SYSTEM: Follow appropriate surface preparation noted above. Apply two coats of Polyurea 3 WB Clear using a short nap premium 1/4–3/8" lint free roller. Graffiti “spray paint” can be removed with a rag saturated with xylene.

ALUMINUM: Remove all oil, grease or soap film with an alkaline cleaner such as TSP (tri-sodium phosphate).

MIXING EQUIPMENT

Low speed drill and spiral mixing wand.

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

MIXING

Note: Before starting, ensure that the material, concrete surface, and the ambient air are all at 50-95°F. Mixing ratio is 3 part A to 1 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 60-90 seconds.

Mix only the amount of material that can be applied during the pot life (approximately 1 hour, depending on air/surface temperatures). Do not aerate the mix. Apply immediately.

***Option**: To help aid in flow and leveling of the product, 6-8 oz. of clean water may be added to each gallon.

APPLICATION

Apply only when air, material and floor temperatures are between 50-95°F and relative humidity below 80%. Do not apply in direct sunlight or when temperature is rising. Be sure the substrate is completely dry. A minimum of 2 coats are recommended with a minimum of 6 hours and a maximum of 24 hours dry time between coats.

Form: ARJ-1905
Rev.: 010720

CITADEL®
POLYUREA 3 WB

PRODUCT APPLICATION (cont.)

APPLICATION (cont.)

Use a ⅜ inch, short nap roller for horizontal surfaces and for vertical surfaces. Apply light coats no more than 24 hours between coats.

THINNING

None required

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.

LIMITATIONS

This product is not designed for immersion or any use where moisture can reach the underside of the coating. Do not apply to floors that have been treated with curing compounds (unless completely removed) or substrates that are less than 30 days old. Do not use on vinyl, asphalt, glazed tile, paving brick, quarry tile, Mexican tile or similar materials. Do not apply if surface temperature is below 50°F.

PERFORMANCE CHARACTERISTICS

TENSILE STRENGTH

METHOD: ASTM D638
RESULT: 2715-2912 psi

ABRASION RESISTANCE

METHOD: ASTM D4060, CS 17 Wheel
RESULT: 4mg loss

WATER VAPOR TRANSMISSION

METHOD: ASTM E96
RESULT: 1.39 perms

MONOLITHIC SURFACING

METHOD: ASTM C722
RESULT: PASS

KONIG HARDNESS

METHOD: ASTM D4366
RESULT: 111

IMPACT RESISTANCE (CS-17)

METHOD: ASTM D2794
RESULT: Pass, >160 inch/lb.

CHEMICAL RESISTANCE

CHEMICAL	RESULT
Acetone	Y
Animal Urine (fox)	Y
Antifreeze (Prestone®)	Y
Bleach (Clorox®)	Y
Brake Fluid	N
Calcium Chloride	Y
Cooking Oil (Peanut, Olive Canola)	Y
De-Icing Salts	Y
Detergents	Y
Gasoline	Y
Hydraulic Fluids (Tellus 46)	Y
Hydrochloric Acid 10%	Y
Hydrofluoric Acid 37%	Y
Isopropyl Alcohol	Y
MEK	Y
Motor Oil	Y
Mustard (Raye's®)	Y*
Natural Grain Spirits 190 Proof	Y
Phosphoric Acid 10%	Y
Skydrol 5	Y
Sodium Hydroxide 50% (Caustic Soda)	Y
Sulfuric Acid 10%	Y
Sulfuric Acid 37% (Battery Acid)	Y
Toluene	Y
Trisodium Phosphate	Y
Water	Y
Windshield Wiper Fluid	Y
Xylene	Y

Chemical Resistance: Chart Key

Y = Resistant
N = Not Recommended
*Will stain unless immediately removed

	TECHNICAL DATA	CDL-04

CITADEL®
POLYUREA 3 WB

PHYSICAL PROPERTIES

		POLYUREA 3 WB
Resin Type		Water based urethane
Weight*	**Per Gallon**	9.0-10.18 lbs
	Per Liter	1.08-1.22 kg
Solids*	**By Weight**	57-67%
	By Volume	54-59%
Volatile Organic Compounds*		<100 g/l
Recommended Wet Film Thickness (WFT) Per Coat		3-5 mils
Practical Coverage Rate		300-500 sq.ft./gal. Coverage rate can vary depending on the texture and porosity of the concrete
Mixing Ratio		3 (base) : 1 (activator)
Induction Period		None
Pot Life @ 70-80°F (21-27°C) & 50% Relative Humidity		60 minutes
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	**Tack Free**	6 hours
	Vehicle Traffic	5 days
	Re-Coat	Minimum 6 hours and Max 24 hours
Shelf Life		2 years
Flash Point		>200°F (93°C)
CAUTION!		Protect from freezing
Safety Information		See SDS

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

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