



CITADEL® ET-80

DESCRIPTION AND USES

ET-80 is a new and improved version of our popular two-component, 80% solids, VOC Compliant, Aliphatic Polyaspartic. ET-80 has extended pot life, which allows the installer the opportunity to keep more product in the bucket, mix larger quantities of product, and still have the fast cure time characteristics of Polyaspartics. ET-80 is sold clear, but may be pigmented using Rust-Oleum® Universal Tint Packs.

PRODUCT FEATURES AND BENEFITS

- Displays fast cure times with excellent adhesion characteristics to a variety of substrates/coatings
- Will provide a glossy, smooth finish when cured
- Extended open times offer better workability while maintaining a fast cure rate
- 100% Polyurea elastomer displays excellent UV, chemical, and abrasion resistance at a wide range of temperatures
- Can be applied indoors or outdoors with minimal disturbance contributed to high VOC levels that are found in most epoxies and polyurethanes
- Versatile topcoat for use on both horizontal and vertical applications
- Easy to mix 1:1 ratio
- Working time of 30-35 minutes once mixed

PRODUCTS

SKU	DESCRIPTION (Clear)
10433B	A Side 5 Gallon
10434	B Side Slow 5 Gallon
10435A	Slow 4 Gallon Kit

PRODUCT APPLICATION

READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

The concrete surface must be free of all dirt, grease, oil, fats, and other contamination. Remove surface contamination by cleaning with Rust-Oleum Professional 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 abraded to dull the finish and produce a slight surface profile. Remove all sanding dust by vacuum.

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 30-90°F. Mixing ratio is 1 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.

DO NOT THIN

TINTING (Clear)

Pre-mix Universal Tint Packs prior to adding into floor coatings. Add Universal Tint Packs at 8 oz. per gallon of mixed floor coating material and combine thoroughly via power mix to achieve uniform colorant dispersal.

NOTE: Some colors, including safety colors, may require additional coats if desired coverage is not achieved in the first application.

NOT FOR USE IN WATER BASED COATINGS

APPLICATION EQUIPMENT

24" flat blade squeegee
18"-3/8" lint free roller

APPLICATION

Mix only what you can squeegee and back roll within 30-40 minutes (approximately 1 gallon of mixed material per crew of two applicators wearing spiked shoes). Do not aerate the mix.

Apply only when air, material and floor temperatures are between 30-90°F (-1-32°C) and surface temperature is at least 5°F (3°C) above the dew point. The relative humidity of the air should not be greater than 85%. Do not apply in direct sunlight or when temperature is rising. Colder environmental conditions can slow the cure of ET-80. Be sure the substrate is completely dry. Variability in these conditions during application may lead to surface defects. For application outside of this temperature range, please contact Rust-Oleum Technical Service.



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PRODUCT APPLICATION (cont.)

APPLICATION (cont.)

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

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 100-200 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 broadcast, texture, and/or the porosity of the concrete. Recommended spread rate over full chip or quartz broadcast is 125-150 sq.ft./gallon. Solid color spread rate is 100-200 sq.ft./gallon.

THINNING: Not normally required.

CLEANUP: Acetone.

PERFORMANCE CHARACTERISTICS

COMPRESSIVE STRENGTH

METHOD: ASTM C695
RESULT: 7950 psi

TENSILE STRENGTH

METHOD: ASTM D412
RESULT: 4500-5200 psi

BOND STRENGTH TO CONCRETE

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

TABER ABRASION

METHOD: ASTM 4060, CS 17
RESULT: Loss/1000 cycles = 28 mg.

FLAMMABILITY

METHOD: ASTM D635
RESULT: 1.2 cm./min.

COEFFICIENT OF FRICTION

METHOD: ASTM D2047
RESULT: 0.77 unglazed

FILM HARDNESS, SHORE D

METHOD: ASTM D2240
RESULT: 137

KÖNIG HARDNESS

METHOD: ASTM D4366
TYPICAL VALUE: 24 Hours - 33
7 Days - 104

ELONGATION

METHOD: ASTM D412
RESULT: 100

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



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CHEMICAL RESISTANCE

CHEMICAL	RESULT (77°F/25°C)
Acetic Acid 100%	C
Acetone	C
Ammonium Hydroxide 50%	RC
Benzene	C
Brine saturated H ₂ O	R
Chlorinated H ₂ O	R
Clorox (10%) H ₂ 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 ₂ 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 Hypochlorite 10%	R
Sodium Bicarbonate	R
Stearic Acid	R
Sugar/H ₂ O	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	RC
Toluene	R
1, 1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar/H ₂ O 5%	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

	TECHNICAL DATA	CDL-15
	CITADEL® ET-80	

PHYSICAL PROPERTIES

		ET-80
Resin Type		Polyaspartic Polyurea
Pigment Type		Varies depending on color
Solvents		Benzyl Alcohol
Weight	Per Gallon	9.59 lbs.
	Per Liter	1.1 kg
Solids	By Weight	80%
	By Volume	80%
Volatile Organic Compounds*		<10 g/l
Recommended Dry Film Thickness (DFT) Per Coat		6-12 mils
Recommended Wet Film Thickness (WFT) Per Coat		8-16 mils
Practical Coverage (assume 15% material loss)		100-200 sq.ft./gal. Coverage rate can vary depending on the broadcast, texture, and porosity of the concrete
Mixing Ratio		1:1
Pot Life @ 70-80°F (21-27°C) and 50% Relative Humidity		35-40 minutes
Re-Coat Window (Min./Max)		2 hours/12 hours
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	Foot Traffic	2-4 hours
	Vehicle Traffic	24 hours
	Full Cure**	7 days
Shelf Life		2 years
Flash Point		>200°F (93°C)
WARNING!		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.
Safety Information		For additional information, see SDS

* Activated material

**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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