

# HIGH CHEM EPOXY

2 COMPONENT | 2 TO 1 MIX RATIO EPOXY

## PRODUCT DESCRIPTION

E2U High-Chem Epoxy is a two component, high performance modified cycloaliphatic epoxy concrete coating system. Its epoxy chemistry provides excellent bonding characteristics and can be applied at 20 to 50 mils. Sand can be broadcast into E2U High-Chem Epoxy to create a superior inner layer adhesion. Its design features provide for the highest industrial and commercial demands. As a primer, you will see superior adhesion and strength. Excels in extreme chemical resistance where daily "spill & clean" of some of the harshest chemicals are used.

#### AVAILABLE COLORS

- Clear
- Light Gray
- Medium Gray
- Dark Gray • White
- White
   Black
- Tan

- Beige • Tile Red • Safety Red • Safety Blue • Safety Groop
- Safety Green
  Safety Yellow

# PRODUCT DATA

Volumetric Ratio —————	2 to 1		
Solids —	100%(+/- 1%)		
Coverage	100 sqft/gal. at 16 mil		
	200 sqft/gal. at 8 mil		
Application Temperature	55°-90°F		
Thinning	Not Required		
Pot Life	3 – 5 min.		
Working Time on Floor	20-30 min.		
Cure Time	12 hrs (walking)		
	24 hrs (light traffic)		
Full Cure	5-7 days		
Shelf Life ————	12 months		
USDA Food & Beverage	Meets Req.		
Critical Re-Coat Time	12 hrs		

### ADVANTAGES

Chemical and solvent resistant such as, Oils, Acids, Alkalies,Salts.
High flowability
VOC Compliant • Withstands medium traffic as thin

- as 12 mil
- High color friendly
  User friendly
- No amine b<u>lush</u>
- PHYSICAL PROPERTIES

PROPERTY	VALUE		REFERENCE		
Compressive Strength	11,500 psi		ASTM C 695		
Flexural Strength	9,800 psi		ASTM D 790		
Tensile Strength	7,900 psi		ASTM D 638		
Bond to Concrete	350 psi		ASTM D 4541 (Concrete fails at this point)		
Taber Abrasion	75-80 Mgs		ASTM D 4060		
Flammability	Self-extinguishing				
Hardness, Shore D	86		ASTM D 2240		
Flash Point	>200°F				
PACKAGING					
3 GALLON KITS		15 GALLON KITS			
PART A ————	2 GAL	PART A ——		- 10 GAL	
PART B	—— 1 GAL	PART B		- 5 GAL	
1.5 GALLON KITS					
PAR	ТА ———		1 GAL		
PAR	Т В ———		0.5 GAL		

# APPLICATIONS

The uniqueness and universality of E2U Epoxy's chemistry facilitates the applications where USDA Food & Beverage and other regulatory requirements must be obtained. Areas of application include: Power plants, Automotive assembly/showrooms, manufacturing facilities, Food processing plants Pharmaceutical and chemical laboratories, Wastewater treatment plants/chemical plants.



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#### CONCRETE PREPARATION

Before coating is applied, concrete must be:

Dry – No wet areas

Clean – Contaminants removed

Profiled - Surface must be diamond ground to a CSP (Concrete Surface Profile) rating of "2"... Roughly the feel of 100 Grit Sandpaper.
 Sound - All cracks and spalled areas repaired

Note: Mechanical preparation is the preferred method of preparing concrete for coating application. Shot-blasting, diamond grinding, scarifying and scab-bling are all acceptable methods.

#### **REPAIR CRACKS**

Voids, cracks and imperfections will be seen in finished coating if the concrete is not patched correctly. E2U Joint Filler (Crack Repair) and/ or E2U Rapid Mender to fill cracks and imperfections. After the materials are cured, diamond grind patch. If another patching material is used, contact a E2U technical representative for a compatible and approved alternative.

## TESTING

All surfaces are not the same. It is recommended that a sample area be done before the start of the project. The test should be done on-site, using the proposed method by the assigned applicator to insure proper adhesion and color. A sample area should also be done on any existing coatings to determine if any contaminants exist or if delaminating will occur.

## MIXING

The ratio of E2U High Chem Epoxy is 2 to 1. That is, two parts A (resin) to one part B (hardener). Mix the following with a drill and mixing paddle. Note: If using a drill mixer, use a high speed (1,000 to 1,500 RPM) to ensure thorough mixing. Mix 1 gallon of Part A for 30-45 seconds. 2. Add 1/2 gallon of Part B and mix for another 60-90 seconds. 3. E2U High Chem Epoxy is designed to be immediately poured on the floor. Leaving mixed product in the container will greatly reduce pot life. Once poured out on the floor, 20-30 minutes of working time can generally be expected.

# CLEAN UP

E2U High Chem Epoxy, while in an un-reacted state, may be cleaned up with hot water and degreaser. Isopropyl alcohol or acetone may be needed once the resin begins hardening. Lastly, a strong solvent like methylene chloride may be required if resin is nearly set up.

## **APPLICATION INSTRUCTIONS**

Application of E2U High Chem Epoxy for a nominal 20 to 30 mil coating system is applied in two coats and in one pass as a top coat. For estimation purposes, use 200 SF per gallon in either case. 1. Always apply in descending temperatures. Concrete is porous and traps air. In ascending temperatures (generally mornings) the air expands and can cause out gassing in the coating. It is safer to apply coatings in the late afternoon, especially for exterior applications. 2. Optimum ambient temperature should be between 55-90°F during application. Note: Cure times are affected by ambient and slab temperatures. Temperatures of 55°F and lower can slow cure times. Temperatures of 85°F and higher will speed up working and times. 3. Mix three gallons of resin using above mixing instructions. 4. Apply approximately 200 SF per gallon (150 SF per gallon for a top coat over Industrial Quartz systems) by immediately pouring out on surface in a ribbon, while walking and pouring at the same time until bucket is empty.

5. Using a squeegee on a pole, pull E2U High Chem Epoxy over substrate. As a first coat over bare concrete, pull resin as thin as possible while still wetting out concrete and uniformly covering surface. This allows trapped air to escape more easily. To apply in a single coat over an Industrial Epoxy system, pull at about 200 SF per gallon.

6. Using a 3/8" non-shedding phenolic (plastic) core paint roller, roll coating forwards and backwards.

Lastly, back roll in the opposite direction as step 6.
 Apply second coat by repeating steps 1-7 the within 12 hours.
 Failure to recoat during this window may result in fish eyes. Always sand floor after 12 hours before recoat.

#### WARNING! SLIP AND FALL PRECAUTIONS

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slipresistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. E2U Flooring recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. E2U or its sales agents will not be responsible for injury incurred in a slip and fall accident.

#### Handling Precautions

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. Avoid contact with skin. Some individuals may be allergic to epoxy resin. Protective gloves and clothing are recommended.

#### WARRANTY

E2U products are warranted for one year after date of purchase. Please refer to the Limited Material warranty for additional clarification.

We believe this product complies with all other applicable state and federal laws and regulations governing manufacturing, distribution and intended use. User is solely responsible for the legal disposal of this container and/or its contents.

MADE IN USA

KEEP OUT OF REACH OF CHILDREN