



# POLYMER CONCRETE (URETHANE CEMENT) 3 COMPONENT, 1 TO 1 MIX RATIO EPOXY

### Product Data

Volumetric Ratio ..... 1 to 1  
Solids ..... 100% (+ or - 1%)

Coverage Rate:  
3/16" - 33 SF/Kit  
1/4" - 25 SF/Kit  
NOT RECOMMENDED TO BE APPLIED AT  
LESS THAN 3/16" THICKNESS

Application Temperature.. 55-90 degree F  
Thinning.....Not Required

Pot life ..... 10 min.  
Working Time..... 10 - 15 min.  
Cure Time  
Light Traffic ..... 6 -8 hours  
Full Cure .....48 - 72 hours  
VOC.....0 m/l  
Shelf life ..... 12 months for Liquid  
4 - 6 months for Part C (aggregate)  
USDA Food & Beverage ..... Meets Req.

**Color Pigments** are available with standard colors.

Matte Finish

### Packaging 5 Gallon Kits:

Part A .....8 lbs  
Part B .....7.5 lbs  
Part C .....44 lbs  
Part D ..... color pigment

*\*Recommend top coat with E2U  
Pigmented Waterborne Urethane  
or Polyaspartic.*

### PRODUCT DESCRIPTION

E2U Polymer Concrete is also referred to as "Urethane cement", which is specifically designed for harsh environments where chemical, thermal shock and abrasions resistance are required. It is three (3) component and self-leveling, gauge rake and spike roller applied or trowel applied with 1/4" to 3/8" thickness. E2U formula makes the flooring system resistant to growth of Microbial/bacterial.

### APPLICATIONS

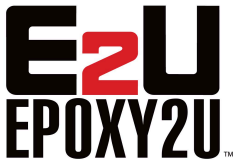
- Food manufacturing & processing facilities
- Chemical processing plant
- Pharmaceutical plants
- Commercial kitchens
- Bottling sanitizing & wash areas
- Cold rooms & freezers

### ADVANTAGES

- Essentially odorless
- High resistance to chemical, impact and abrasion
- VOC Compliant
- Superior adhesion to various substrates
- Self Priming & no top coat is required
- Does not support the growth of fungus or bacteria
- Fast curing & installation time
- Can be applied to 7-10 day old concrete
- Wide temperature in-service range

### PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	9,800 psi	ASTM C 579
Flexural Strength	3,700 psi	ASTM D 790
Tensile Strength	3,900 psi	ASTM D 638
Bond to Concrete	400 psi	ASTM D 4541 Concrete fails at this point
Impact Resistance	PASS@ 125 mils	ASTM D-2794
Flammability	Self-extinguishing	
Hardness, Shore D	85	ASTM D 2240
Flash Point	>200°F	



## CONCRETE PREPARATION

Before coating is applied, concrete must be:

- Free of dirt, waxes, curing agents and other foreign materials
- Clean – Contaminants removed
- Profiled – Surface etched
- Sound – All cracks and spalled areas repaired

Note: Mechanical preparation is mandatory for this product and surface MUST be profiled to a CSP Rating of "4" or better... Attainable by shot blasting only.

## PATCHING

Voids, cracks and imperfections will be seen in finished coating if the concrete is not patched correctly. Patch concrete with E2U Patch. After the patching material is cured, diamond grind patch. If another patching material is used, contact a E2U technical representative for a compatible and approved alternative.

## MIXING

Ensure all components are between 55 - 90°F. E2U Polymer Concrete kits are pre-measured, consisting of one jug of resin, one jug of hardener and one bag of aggregate. Pour entire contents of Part A & Part B into 5gal bucket or larger and mix well for 30 seconds. Slowly add Part C while under agitation. It is important to "wet-out" all parts of mix, scraping the bottom and sides of bucket. Mixing bucket and mixer/blades should be scrapped out thoroughly and cleaned with solvents such as acetone, xylene. Prepare only the amount you can use in 10 minutes at 78F. (Higher temperatures reduce work time). Do not leave the mixed material in the bucket longer than 5 minutes. Incomplete mixing will cause an inconsistent finish, or product to not cure properly.

NOTE: Do not mix this product in direct sunlight or when temperatures exceed 90°F. Set up the mixing station as near to the work area as possible. Exposure to high temperatures will reduce the working time. DO NOT MIX UNTIL READY FOR IMMEDIATE USE.

## CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with Xylene or MEK.

## APPLICATION INSTRUCTIONS

- NOTE: Please keep in mind once you begin the application process there is NO STOPPING until the floor is complete or your have designated stopping joints or lines that will separate the pour.
- Immediately upon completion of mixing, take bucket to area of application and pour out entire contents in a ribbon about 5' long.
- Using a gauge rake w/cams already set to desired thickness ( 3/16" or higher) start at the top of the ribbon and pull the product toward you making sure to keep the handle of the pole at waist height and continue this process until the entire amount is raked out evenly.
- Just as your finishing, another mix should already be getting poured out right next to the first mix and raking the new mix immediately into the first mix and continuing the process.
- NOTE: It is extremely important to constantly keep a wet edge at all times blending one kit to the next with out letting it start to set up.
- When pouring out each kit one after the other next to each other until you get from one side of the floor to the other it's important to remember you only have about 5 to 7 min. (depending on ambient temperature) to blend one kit to the next – So if need be, you may need to start pouring at the bottom of the first mix to keep that wet edge if you can't make it to the other side of the floor in that time frame.
- After the product has been poured out, gauge raked, and sat for 2 to 3min. another person in spike shoes will be coming out following in tandem a few minutes behind the gauge rake person and "Spike Rolling" the surface. This is achieved by using a quality 18" plastic spike roller with spikes that are AT LEAST twice the length of the thickness of polymer concrete you are putting down. Simply roll the spike roller from top to bottom in a continuous motion over lapping each previous roll by a few inches until you reach the other side of the floor never lifting up the roller and making sure not to walk in the product after it's been spike rolled.
- By the time the spike rolling person reaches the other side, a new row of product should almost be finished being raked out and the spike roller will go back to the start of the 2nd row and repeat the process. Continue this process until the entire floor is complete.
- NOTE: If a sand finish is desired (and it usually is), a third person in spike shoes will follow in tandem a few minutes behind the spike rolling person and broadcasting sand to refusal. 30 Grit Silica Sand is industry standard and generally you will need about 1 ½ lbs. of sand per SQFT.
- Once you have reached the end of the floor (sand finish or not) you are done for the day.

## 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 slipresistant 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.



MADE IN THE USA

KEEP OUT OF REACH OF CHILDREN

## TECHNICAL DATA SHEET

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