POLYMER CONCRETE
URETHANE CEMENT

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

E2U Polymer Concrete is also referred to as "Urethane cement", which 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 ok thickness. E2U formula makes the flooring system resistant to growth of Microbial/bacterial.

PRODUCT DATA

COMPONENT	3 Component
Solids	100%(+/- 1%)
Application Temp	50°-90°F
Thinning	Not Required
Pot Life	2 min. Designed for Immediate Pour
Working Time	10 min.
Cure Time	8-12 Hours (Foot-traffic)
Full Cure	24-48 Hours (Heavy-traffic)
USDA Food & Beverage	Meets Req.
VOC	0 m/l
Coverage	45 SF/Kit (1/8") Finish Floor will be 3/8thickness with 30 grit sand broadcast to refusal and top coat sealer

AVAILABLE COLORS

- Gray

SHELF LIFE

Part A	One year after purchase
Part B	One year after purchase
Part C	Six months after purchase

PACKAGING

Part A	8 lbs.
Part B	7.5 lbs.
Part C	44 lbs.

PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	9,800 psi	ASTM C 579
Flexural Strength	2,700 psi	ASTM D 790
Tensile Strength	2,000 psi	ASTM D 638
Bond to Concrete	400 psi	ASTM D 4541 (Concrete fails at this point)
Impact Resistance	PASS @ 125 mils > 160in-lbs	ASTM D-2794
Abrasion Resistance	70 mg loss / CS-17 Wheel, 1000 cycles	ASTM D 4060
Hardness, Shore D	80	ASTM D 2240
Flash Point	>200°F	

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CONCRETE PREPARATION

Before coatingis applied, concrete must be:
- Free of dirt, waxes, curing agents and other foreign materials
- Clean – Contaminants removed
- Profiled – Shot Blast to CSP of 4
- Sound – All cracks and spalled areas repaired

Note: Mechanical preparation is the preferred method of preparing concrete for coating application. Shot-blasting is the only acceptable method. Mechanically profile the floor to a minimum CSP 4-5

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 mate- rial 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 50 - 90°F. E2U Polymer Concrete kits are pre-measured, consisting of one jug of resin, one jug of hardener, 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 5 minutes at 78°F. (Higher temperatures reduce work time). Do not leave the mixed material in the bucket longer than 3 minutes. Incomplete mixing will cause an inconsistent finish.

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 acetone.

APPLICATION INSTRUCTIONS

Please see application instruction sheet.

APPLICATIONS

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

ADVANTAGES

- High resistance to chemical, impact and abrasion
- Solvent free - VOC Compliant
- Superior adhesion to various substrates
- Self Priming & no top coat is required
- Thermal stability
- 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
- Meets USGBC LEED criteria

WARNING! SLIP AND FALL PRECAUTIONS

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. E2U 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.

KEEP OUT OF REACH OF CHILDREN

MADE IN USA

POLYMER CONCRETE

CHEMICAL AND STAIN RESISTANCE

1 = Best for chemical resistance: Chemical has no adverse effects on fully cured coating; remove within 24 hours.
2 = Low potential for stain: Chemical has no adverse effects on fully cured coating if removed within 24 hours.
3 = High potential for stain or degradation: Chemical must be removed within 24 hours of exposure.
NR = Not recommended

Acetic Acid (Component off Vinegar), 10%	1
Acetic Acid, 30%	2
Acetone	1
Ammonia, 30%	1
Ammonium Hydroxide, 30%	1
Antifreeze (Coolant)	1
Benzene (Component Of Crude Oil)	3
Benzyl Alcohol	3
Betadine, 11%	2
Boric Acid, 4%	3
Brake Fluid, DOT 3	1
Chromic Acid, 10%	1
Chromic Acid, 30%	1
Citric Acid, 30%	1
Ethanol, 95%	3
Ethyl Acetate, 99% (Food/Beverage Facility)	NR
Formaldehyde, 37%	2
Premium Gasoline	1
Hydraulic Fluids (Machinery, Automobile, Aviation)	1
Hydrochloric Acid, 10%	1
Hydrochloric Acid, 30%	1
Hydrofluoric Acid, 10%	1
Hydrofluoric Acid, 30%	1
Hydrogen Peroxide, 10%	1
Hydrogen Peroxide, 50%	3
Iodine, 2%	3
Isopropyl Alcohol	1
Jet Fuel	1
Lactic Acid, 30% (Dairy Facility)	1
Lime Juice	1
Magnesium Hydroxide	1
MEK (Methyl Ethyl Ketone)	NR
Methanol	NR
Methylene Chloride	3
MIBK (Methyl Isobutyl Ketone)	NR
Mineral Oil	1
Motor Oil, SAE 30	1
Mineral Spirits	NR
Mustard, Yellow	3
Nitric Acid, 30%	2
Oleic Acid	1
Oxalic Acid, 10%	1
Phosphoric Acid, 20%	1
Potassium Hydroxide, 30% (Alkaline Batteries, Soap Manufacturing)	1
Propylene Glycol	1
Silver Nitrate, 20% (Photo Labs)	3
Sodium Chloride, 20%	1
Sodium Hydroxide (Caustic Soda), 50%	1
Sodium Hypochlorite (Bleach), 10%	2
Sodium Hypochlorite (Bleach), 30%	2
Sodium Persulfate (Bleaching and Oxidizing Agent)	2
Sulfuric Acid, 37% (Battery Acid)	1
Tannic Acid, 20%	2
Tartaric Acid, 10%	1
Transmission Fluid	1
Urine, Dog or Cat	1
Urea (Nitrogen-Rich Fertilizer)	1
Vinegar, Distilled	1
Water (Hard Water from Well)	1
Whisky	1
Wine, Cabernet Sauvignon	1
Xylene	3

Pigments can influence working times, lower chemical resistance, or increase the likelihood of staining. All coatings were tested at ambient temperature with 1–3 days of chemical exposure. For best results, products should be tested on site prior to installation.

*HEAT RESISTANT UP TO 240°F
*RESISTANT TO PH WATER SCALE OF 4 TO 12

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