EPOXY 600

PRODUCT DESCRIPTION AND USE

Epoxy 600 is a low viscosity, 100% solids, high performance resin system designed to give improved chemical resistance over standard Bisphenol A based epoxy materials. This Bisphenol F epoxy modified material provides improved crosslinking and excellent resistance to corrosive food acids, most solvents, 50% sulfuric acid and 15% acetic acid. Epoxy 600 features rapid cure, good troweling characteristics and blush-free cures even in low temperature applications.

Epoxy 600 was formulated for use as an aggregate binder or top coat where service conditions are too severe for general purpose epoxies, but the performance of novolac materials is not required. Epoxy 600 is especially recommended for use in commercial kitchens. Other areas of use would include food and beverage processing plants, battery rooms, wineries, breweries and dairies.

Chemical Composition
A blend of Bisphenol A and Bisphenol F epoxy resins crosslinked with cycloaliphatic polyamines.

Colors
16 standard colors available, plus clear

Limitations
- Clear product will have some tendency to amber and may not be suitable as a top coat in light colored decorative applications.
- Should be applied with aggregate fillers in flooring applications where impact or mechanical abuse is anticipated.

TECHNICAL DATA

Physical Properties
Solids Content, % 100
Mixing Ratio, by Volume 2-1
Viscosity, cps (77 degrees) 700
Volatile Organic Compounds ..... none
Pot Life, (77 degrees, 1 quart mass) ..... 35 minutes
Pot Life is reduced by increasing temperature and/or mass.

Cure Times (77 degrees)	Cure Times (50 degrees)
Dry to Touch.....3 hours	Dry to Touch.....18 hours
Light Traffic.....6 hours	Light Traffic.....30 hours
Full Cure.....7 days	Full Cure.....14 days

Cure times are influenced by both the ambient air temperature and the temperature of the concrete.

WARRANTY INFORMATION

Arizona Polymer Flooring guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. ARIZONA POLYMER FLOORING MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. Arizona Polymer Flooring shall not be liable for damages caused by application of its products over concrete with excessive moisture vapor transmission or alkalinity. Arizona Polymer Flooring shall not be liable for any injury incurred in a slip and fall accident. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product.

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Performance Properties

Tensile Strength, psi (ASTM D-638)	8,590
Ultimate Elongation, % (ASTM D-638)	7
Compressive Yield Strength, psi (ASTM D-695)	13,790
Ultimate Compressive Strength, psi (ASTM D-695)	19,480
Ultimate Flexural Strength, psi (ASTM D-790)	13,945
Hardness, Shore D (ASTM D-2240)	82
Bond Strength to Concrete (ASTM D-4541)	concrete fails before loss of bond

Chemical Resistance

The chemical resistance of a coating material is influenced by many factors, including exposure to a mixture of chemicals, service temperature and housekeeping practices. Successful engineering of the coating system must also take into consideration such factors as substrate design, temperature cycling and anticipated thermal and mechanical shock. Users are urged to consult our technical service department for recommendations on the specific project. Whenever possible, a sample should be tested under actual or simulated field conditions before a decision is made on the suitability of a given system.

The following chart is a guide to the resistance properties of Epoxy 600. Testing was conducted at room temperature on samples cured for 7 days.

Key: 1. - Suitable for continuous contact
2. - Suitable for intermittent spills and continuous contact up to 72 hours
3. - Suitable for intermittent spills if followed promptly by water flushing
4. - Not recommended

*Coating stains when exposed to this chemical

Acetic Acid, 15%	1	Formaldehyde	1
Acetic Acid, 25%	2	Formic Acid 25%	1
Acetic Acid, Glacial	3	Hydrobromic Acid, 48%	*1
Acetone	4	Hydrochloric Acid, 37%	*1
Aluminum Chloride	1	Hydrofluoric Acid 25%	2
Aluminum Nitrate	1	Hydrogen Peroxide, 30%	1
Aluminum Sulfate	1	Lactic Acid, 50%	1
Ammonium Hydroxide	1	Lactic Acid, 85%	2
Ammonium Nitrate	1	Jet Fuel	1
Ammonium Sulfate	1	Isopropyl Alcohol	1
Aniline	3	Maleic Acid, 40%	2
Barium Chloride	1	Methanol	2
Barium Hydroxide	1	Methylene Chloride	3
Barium Sulfide	1	Methyl Ethyl Ketone	4
Beer	1	Nitric Acid, 15%	*1
Benzene	1	Oleic Acid	1
Brake Fluid	1	Phosphoric Acid, 85%	1
Boric Acid	1	Potassium Chloride	1
N-Butyric Acid, 50%	3	Potassium Cyanide	1
Calcium Chloride	1	Potassium Hydroxide	1
Calcium Hydroxide	1	Potassium Nitrate	1
Calcium Nitrate	1	Potassium Sulfate	1
Calcium Sulfate	1	Skydrol	1
Chloroform	1	Sodium Hydroxide, 50%	1
Chromic Acid, 50%	*1	Sodium Chloride	1
Citric acid, 50%	1	Sulphuric Acid, 50%	*1
Cola Syrup	1	Tetrahydrofuran	3
Copper Chloride	1	Tolulene	1

Chemical Resistance (Cont'd.)

Copper Nitrate	1	Trichlorethylene	3
Copper Sulfate	1	Trichlorethane	1
Diesel Fuel	1	Urea	1
Ethyl Acetate	1	Xylene	1
Ethyl Alcohol	1		

GENERAL INFORMATION

Moisture Vapor Emissions Precautions

All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings. APF can supply moisture remediation products. Consult our technical service department. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

Surface Preparation

Concrete must be cured 30 days and be clean, dry, and structurally sound. Surface must be shot blasted, diamond ground or acid etched to achieve an ICRI profile of SCP3 or greater. A properly prepared surface will have the texture of 80-100 grit sandpaper. If the surface is diamond ground, use 20-30 grit diamonds and vacuum the floor twice to remove concrete dust. Excessive dust in the pores of the concrete can compromise adhesion. **If acid etched, machine scrubbing is required.** Adhere strictly to guidelines listed in the Arizona Polymer Flooring Surface Preparation Manual. Previously coated surfaces must be mechanically cleaned and abraded with 80-100 mesh sandpaper prior to application.

Mixing Instructions

Pot life is 35 minutes at 77 degrees. Work times are shortened by higher temperatures. Pouring material on floor immediately after mixing will extend work time. Combining ratio is 2 parts A to 1 part B. If using pigmented material, stir Part A well, bringing settled pigments up from bottom of container before adding Part B. **Proportion the amounts carefully and mix for 2 full minutes using a low speed drill, scraping the bottom and sides of the mixing vessel.**

Application Recommendations

Epoxy 600 may be applied by roller, trowel or squeegee. Epoxy 600 must be applied as an aggregate-filled system at a minimum of 50 mils in flooring systems where impact or mechanical abuse is anticipated. It may be applied as a self-leveling slurry, slurry broadcast or resin-rich troweled system. When applied as an unfilled system, Epoxy 600 may be thinned with up to 15% Acetone, MEK or Glycol Ether EP. Application rate should be kept at 200 sq. ft. per gallon if adding solvent. The addition of solvent may slow the cure somewhat. **If used as a binder in aggregate-filled flooring, do not thin.** For detailed installation instructions, see Arizona Polymer Flooring Application Manual.

Handling Precautions

Do not breathe vapors. Use appropriate respirator with green band cartridge to protect against methyl amine vapors. Avoid contact with skin; wear protective gloves. Read Material Safety Data Sheet before using.

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. Arizona Polymer 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. Arizona Polymer Flooring or its sales agents will not be responsible for injury incurred in a slip and fall accident.