

EPOXY 100

PRODUCT DESCRIPTION AND USE

Epoxy 100 is a two component water-based epoxy system that features ease of application, very low odor and excellent overall coating performance. This material cures blush free over a wide range of temperatures and adheres tenaciously to a variety of substrates including damp or wet concrete. Because of its affinity for moisture and inherent alkalinity resistance, Epoxy 100 may be used over green concrete with proper surface preparation.

Epoxy 100 is used as a general purpose coating for concrete floors and as a primer under epoxy, polyurethane and acrylic materials. The raw material package has a 30 year history of success as a concrete coating. Epoxy 100 is recommended for coating warehouse and factory floors, coating automotive repair facilities, residential garage floors and for many other commercial and industrial maintenance applications. Because of its ease of application, Epoxy 100 is an excellent choice for do-it-yourself floor coating projects.

Chemical Composition

Modified Bisphenol A epoxy resin crosslinked with a water soluble amine adduct.

Colors

9 standard colors available, plus clear.

Limitations

- Exterior pigmented applications will show chalking.
- Exterior clear applications are not recommended.
- Acid etched surfaces must be thoroughly rinsed before coating.

TECHNICAL DATA

Physical Properties

Mixing Ratio, by Volume	4-1
Solids Content, by Weight	51%
Solids Content, by Volume	43.5%
Volatile Organic Compounds	50 grams/liter
Pot Life (77°F).....	2-3 hours

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.

Physical Properties (Cont'd.)

Cure Times (77 degrees)

- Dry to Touch 2 hours
 - Recoat..... 12-18 hours
 - Light Traffic 18-24 hours
 - Full Cure..... 7 days
- Higher temperatures and lower humidity will accelerate cure times.
 Lower temperatures and high humidity will lengthen cure time.

Properties Performance

- Gloss (60 degrees)..... 85-90
- Pencil Hardness (ASTM D-3363) F-H
- Adhesion to damp concrete (ASTM D-451).....concrete fails before loss of bond
- Tabor Abrasion - 1000 gm. load 1000 cycles, CS 17 wheel..... 60-65 mg. loss

CHEMICAL AND STAIN RESISTANCE (ASTM D-1308 24 HOUR IMMERSION)

- Coffee no effect
- Vegetable Oil..... no effect
- Mustard..... no effect
- Whiskey..... no effect
- Urine..... no effect
- Trisodium Phosphate, 25% solution no effect
- Gasoline..... no effect
- Motor Oil..... no effect
- Brake Fluid..... slight softening, film recovers
- Transmission Fluid no effect
- Mineral Spirits..... no effect
- 10% Sulphuric Acid..... no effect
- 10% Hydrochloric Acid..... no effect
- 10% Acetic Acid..... no effect
- Xylene slight softening, film recovers
- MEK film destroyed

GENERAL INFORMATION

Moisture Vapor Emissions/Alkalinity Precautions

All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission and related high levels of alkalinity 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 or alkalinity are present before applying any coatings. These test kits are available from APF. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions or related high levels of alkalinity.

Surface Preparation

Concrete must be cured 7 days and be clean, structurally sound, and free of wax, loose paint or curing compounds. Surface may be damp, but standing water should be removed. Concrete should be shot blasted, acid etched or diamond ground to achieve a minimum 5 mil profile. **If acid etched, use of a floor machine with a nylogrit brush is required. Do not allow the etching solution to dry on the concrete. Etched surface must be thoroughly rinsed. Pressure washing after etching is ideal. Do not neutralize with a base material.** Carefully follow the guidelines listed in the Arizona Polymer Flooring Surface Preparation Manual. If surface is prepared by diamond grinding, grind thoroughly to “open up” the surface. Vacuum concrete dust and rinse surface well. Previously coated surfaces must be mechanically cleaned and abraded with steel wool or 80 grit sandpaper.

Mixing Instructions

Mix only that amount of material that can be used in a 2-3 hour period. In very hot weather it is advisable to mix smaller batches to ensure good flow and workability. Because color change can occur as mixed material advances into its pot life, when using as a pigmented finish coat, mix only that amount of material than can be used in 1 hour. Premix Part A before blending with Part B. Combining ratio is 4 Parts A to 1 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. 15-20% water must be added to achieve a low application viscosity. A common mixing ratio is 4A:1B:1 water.**

Application Recommendations

Epoxy 100 is normally applied 200-350 sq. ft. per gallon by brush, roller or airless spray. If using as a primer and trapped air in the substrate creates bubbles, continued rolling will cause them to disappear. Epoxy 100 should normally be recoated after an overnight cure period. However, if conditions are very cool and/or damp, 48 hours cure time should be allowed before recoating. If the product cures longer than 72 hours, the surface should be lightly sanded before recoating. When using a pigmented finish coat, keep a “wet edge” and do not attempt to roll over material that has begun to set as a change in color will result.

Handling Precautions

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. 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.