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
16 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.
- Not recommended for use over acid stain

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
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.

Arizona Polymer Flooring . 7731 N. 68th Avenue . Glendale, AZ 85303 . Ph: 623.435.2277 OR 1.800.562.4921 . Fx: 623.435.8585 . www.apfepoxy.com

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 shotblasted, 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.