

Epoxy 1000

PRODUCT DESCRIPTION AND USE

Epoxy 1000 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 wet and damp concrete.

Epoxy 100 is used as a general-purpose coating for concrete and as a primer under epoxy, polyurethane and acrylic materials. This epoxy formulation has a 25-year history of success as a concrete coating. Epoxy 100 is recommended for sealing warehouse and factory floors, coating automotive repair facilities, residential garage floor and for many other commercial and industrial maintenance applications. A special version of this material is available with a higher pigment loading for improved substrate hide in a single coat. This product is used in color chip flooring applications without a primer to reduce costs.

Chemical Composition

Modified Bisphenol. An epoxy resin cross-linked with a water soluble amine adduct.

Colors

Nine standard colors available, plus clear.

Limitations

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

TECHNICAL DATA

Physical Properties

Mixing Ratio by Volume.....	4-1
Solid Content by Weight.....	51%
Solids Content by Volume.....	43.5%
Volatile Organic Compounds.....	100 grams/liter
Pot Life (77°F).....	2-3 hours
Dry to Touch.....	2 hours
Recoat.....	12-18 hours
Light Traffic.....	12-24 hours
Full Cure.....	7 days

Higher temperatures and lower humidity will accelerate cure times.

Lower temperatures and high humidity will lengthen cure times

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

GENERAL INFORMATION

Moisture Vapor Emissions/Alkalinity Precautions

All interior concrete floors not poured over an affective 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 testing to determine if excessive levels of vapor emission or alkalinity are present before applying any coatings. These test kits are available from Garage Sealers. Garage Sealers and it’s 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 30 days and be clean, structurally sound, and free of wax, loose paint or curing compounds. Surface must be damp, but standing water should be removed. Concrete should be shot blasted acid etched or diamond grinded to achieve a minimum of 5 mil profile. If acid etched, use of a floor machine with a nylogrit brush is required. Etched surface must be neutralized with ammonia and water. 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. If applied over acid stains, surface must be properly neutralized with ammonia and water.

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 that can be used in one hour. Premix Part A before blending with Part B. Combining ratio is 4 Parts A to 1 Part B. Proportion the amounts carefully for two full minutes using a low speed drill, scraping the bottom and sides of the mixing vessel. 15-25% water must be added to achieve low application viscosity.

Applications Recommendations

Epoxy 100 is normally applied 250-400 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. Wait at least two hours before applying second coat. 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

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. Garage Sealers recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy condition. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Garage Sealers or its agents will not be responsible for injury incurred in a slip and fall accident.