

## **BASIC EPOXY P.B.T.**

### **DESCRIPTION**

BASIC EPOXY P.B.T. is a solvent-free high performance resin system designed to give improved chemical resistance over standard Bisphenol A based epoxy materials. It has excellent resistance to corrosive food acids, most solvents, 50% sulfuric acid and 15% acetic acid. Epoxy 600 features low viscosity, good troweling characteristics, blush-free cures and good resistance to ambering for an epoxy material. The regular cure material bonds to damp concrete. A fast cure hardener is available where cold weather cure down to 40 degrees or accelerated room temperature cure is required

### **COLORS**

BASIC EPOXY P.B.T. comes in 9 standard colors plus clear.

### **SURFACE PREPARATION**

Concrete must be cured 30 days and be clean, and structurally sound. All loose paint and curing compounds must be removed. Surface must be shot blasted or acid etched to achieve a minimum 5 mil profile. **If acid etched, machine scrubbing is required.** Adhere strictly to guidelines listed in the Arizona Polymer Flooring Surface Preparation Manual. Surface must be dry for application of the fast cure material. For application of regular cure material, surface may be damp but with no standing water. Previously coated, sound surfaces must be mechanically cleaned and abraded with 60-80 mesh sandpaper prior to application.

### **IMPORTANT NOTE - WARRANTY**

Basic Polymers™ products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which can be obtained on request.

### **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.

### **APPLICATION RECOMENDATIONS**

BASIC EPOXY P.B.T. may be applied by roller, trowel or squeegee. BASIC EPOXY P.B.T. 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, BASIC EPOXY P.B.T. may be thinned with up to 15% Acetone, MEK or Glycol Ether EP. **If used as a binder in aggregate-filled flooring, do not thin.** For detailed installation instructions, see Arizona Polymer Flooring Application Manual

### **STORAGE CONDITIONS**

Refer to BASIC-CRETE manual.

### **MIXING INSTRUCTIONS**

If using regular cure material, pot life is 35 minutes at 77 degrees. Pot life of fast cure material is 15 minutes. Work times are shortened by higher temperatures. Pouring material on floor immediately after mixing will extend work time. Combining ratio is 2 part 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.

### **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. Basic Polymers™ is not responsible for coating failures due to undetected moisture vapor emissions or related high levels of alkalinity.

## 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 BASIC POLYMERS P.B.T.. 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, 10%	1	Hydrobromic Acid, 48%	1
Acetic Acid, 25%	2	Hydrochloric Acid, 37%	1
Acetic Acid, 50%	3	Hydrofluoric Acid, 25%	1
Acetic Acid, Glacial	4	Hydrofluoric Acid, 48%	2
Acetone	1	Hydrogen Peroxide, 30%	1
Aluminum Chloride	1	Lactic Acid, 85%	1
Aluminum Nitrate	1	Jet Fuel	1
Aluminum Sulfate	1	Isopropyl Alcohol	1
Ammonium Hydroxide	1	Maleic Acid, 40%	2
Ammonium Nitrate	1	Methanol	2
Ammonium Sulfate	1	Methylene Chloride	3
Aniline	3	Methyl Ethyl Ketone	4
Barium Chloride	1	Nitric Acid, 10%	1
Barium Hydroxide	1	Nitric Acid, 30%	1
Barium Sulfide	1	Nitric Acid, 50%	1
Benzene	1	Oleic Acid	1
Boric Acid	1	Phosphoric Acid, 85%	1
N-Butyric Acid, 50%	1	Potassium Chloride	1
Calcium Chloride	1	Potassium Cyanide	1
Calcium Hydroxide	1	Potassium Hydroxide	1
Calcium Nitrate	1	Potassium Nitrate	1
Calcium Sulfate	1	Potassium Sulfate	1
Chloroform	1	Skydrol	1
Chromic Acid, 50%	1	Sodium Hydroxide, 50%	1
Citric Acid, 50%	1	Sodium Chloride	1
Copper Chloride	1	Sulphuric Acid, 98%	1
Copper Nitrate	1	Tetrahydrofuran	3
Copper Sulfate	1	Tolulene	1
Diesel Fuel	1	Trichlorethylene	3
Ethyl Acetate	1	Trichlorethane	1
Ethyl Alcohol	1	Urea	1
Formaldehyde	1	Xylene	1
Formic Acid, 25%	3		

## PHYSICAL PROPERTIES

Solids Content, %	100%	
Mixing Ratio, by Volume	2-1	
Viscosity, cps (77 ° F)	850	
Pot Life, (77 ° F, Regular Cure 1 quart mass)	35 minutes	
Pot Life, (77 ° F, Fast Cure)	15 minutes	
Pot life reduced by increasing temperature or mass		
Cure times (77 ° F)	<u>Regular Cure</u>	<u>Fast Cure</u>
Dry to touch	5 hours	3 hours
Light Traffic	12 hours	6 hours
Full Chemical Resistance	7 days	5 days
<b>PERFORMANCE PROPERTIES</b>		
Tensile Strength, psi (ASTM D-638)	8,590	
Ultimate Elongation, % (ASTM D-638)	7	
Compressive Yield Strength, psi (ASTM D-695)	13,790	
Ultimate Flexural Strength, psi (ASTM D-790)	13,945	
Ultimate Compressive Strength, psi (ASTM D-695)	19,480	
Hardness, Shore D (ASTM D-2240)	86	