# EPOXY 400 Thixotropic

## PRODUCT DESCRIPTION AND USE

Epoxy 400 Thixotropic is a high viscosity, 100% solids resin system used grout various aggregate filled epoxy flooring systems. This material cures blush-free and provides an outstanding balance of physical strength, flexibility and chemical resistance. A fast cure hardener is available when cold weather cure down to 40°F or accelerated room temperature cure is required. Epoxy 400 Thixotropic is not recommended for food processing areas, commercial kitchens, wineries or other areas that receive constant corrosive exposure. Epoxy 600 or 900 should be selected for these applications.

### Chemical Composition
Modified Bisphenol A epoxy resin crosslinked with aliphatic and cycloaliphatic polyamines.

### Colors
16 standard colors available, plus clear.

### Limitations
- Must be applied to a clean, dry surface.
- Exterior pigmented applications will show chalking.

## TECHNICAL DATA

### Physical Properties

| | |
|---|---|
| Mixing Ratio, by Volume | 2-1 |
| Solids Content, % | 100 |
| V.O.C. | none |
| Viscosity, cps (Clear Material, 77 degrees) | NA |
| Pot Life, Regular Cure (77 degrees, 1 quart mass) | 35 minutes |
| Pot Life, Fast Cure (77 degrees) | 18 minutes |

Pot Life is reduced by increasing mass and/or temperature.





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Cure Times (77 degrees)

| Regular Cure | Fast Cure |
|---|---|
| Dry to Touch.....6 hours | Dry to Touch.....3 hours |
| Light Traffic.....16 hours | Light Traffic.....7 hours |
| Full Cure.....7 days | Full Cure.....5 days |

Cure Times (50 degrees)

| Fast Cure |
|---|
| Dry to Touch.....18 hours |
| Light Traffic.....30 hours |
| Full Cure.....14 days |

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

**Performance Properties**

| | |
|---|---|
| Tensile Strength, psi (ASTM D-638) | 6,230 |
| Ultimate Elongation, % (ASTM D-638) | 11 |
| Compressive Yield Strength, psi (ASTM D-695) | 9,850 |
| Ultimate Compressive Strength, psi (ASTM D-695) | 19,501 |
| Ultimate Flexural Strength, psi (ASTM D-790) | 9,680 |
| Hardness, Shore D (ASTM D-2240) | 78 |
| Bond Strength to Concrete (ASTM D-4541) | concrete fails before loss of bond |

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

| | |
|---|---|
| Vegetable Oil | no effect |
| Mustard | no effect |
| Urine | no effect |
| Gasoline | no effect |
| Motor Oil | no effect |
| Transmission Fluid | no effect |
| Brake Fluid | slight softening, film recovers |
| 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 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.

### 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 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 400 Thixotropic should be applied with a flat squeegee or trowel and then back rolled with a 3/8$^{th}$ nap roller. The application rate should be between 100-200 square feet per gallon.

### 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.