



EPOXY NOVOLAC 900

PRODUCT DESCRIPTION AND USE

Epoxy Novolac 900 is a 100% solids, multi-functional epoxy system designed to give highly crosslinked coatings with resistance to a broad range of chemicals including 98% sulfuric acid and most solvents. Epoxy Novolac 900 offers a workable pot life, blush-free cure and positive curing down to 40°F. The material is available with a non-sag thickener for easy vertical application.

Epoxy Novolac 900 was designed as a user friendly, high performance material for use in a variety of chemical-resistant applications. It is especially suitable in areas subject to high concentrations of acids such as metal plating, circuit board manufacturing, chemical processing, storage areas and waste treatment plants.

Chemical Composition

Modified Epoxy Phenolic Novolac resin crosslinked with cycloaliphatic polyamines.

Colors

16 standard colors available, plus clear.

Limitations

- Should be applied only with aggregate fillers in flooring applications where impact or mechanical abuse is anticipated.
- Not recommended as a clear top coat in decorative applications.
- Not suitable for applications with constant temperatures over 175°F.

TECHNICAL DATA

Physical Properties

Solids Content, % 100
 Mix Ratio, by Volume applied in pre-measured kits only
 Viscosity, cps (77 degrees) 550
 Pot Life, (77 degrees, 1 quart mass) 25 minutes
 Pot Life is reduced by increasing temperature and/or mass

Cure Times (77 degrees)

Dry to Touch 4 hours
 Light Traffic 10 hours
 Full Chemical Resistance 7 days

Cure Times (50 degrees)

Dry to Touch 18 hours
 Light Traffic 36 hours
 Full Chemical Resistance 14 days

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

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.

HIGH PERFORMANCE CONCRETE COATING SYSTEM

Performance Properties

Tensile Strength, psi (ASTM D-638).....	8,200
Ultimate Elongation, % (ASTM D-638).....	5
Compressive Yield Strength, psi (ASTM D-695).....	12,500
Ultimate Flexural Strength, psi (ASTM D-790).....	10,200
Hardness, Shore D (ASTM D-2240).....	82
Bond Strength to Concrete (ACI 503.4-2.3.2.2)	concrete fails before loss of bond

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, cure temperature, temperature cycling and expected 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 Epoxy Novolac 900. 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.....	3	Hydrofluoric Acid, 48%.....	2
Acetone.....	2	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.....	1
Ammonium Sulfate.....	1	Methylene Chloride.....	4
Aniline.....	3	Methyl Ethyl Ketone.....	2
Barium Chloride.....	1	Nitric Acid, 10%.....	1
Barium Hydroxide.....	1	Nitric Acid, 30%.....	2
Barium Sulfide.....	1	Nitric Acid, 50%.....	3
Benzene.....	1	Oleic Acid.....	1
Boric Acid.....	1	Phosphoric Acid, 85%.....	1
N-Butyric Acid, 50%.....	3	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.....	3	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	Titanium Tetrachloride.....	1
Diesel Fuel.....	1	Toluene.....	1
Ethyl Acetate.....	1	Trichlorethylene.....	3

Chemical Resistance (Cont'd.)

Ethyl Alcohol.....	1	Trichlorethane	1
Formaldehyde.....	1	Urea.....	1
Formic Acid, 25%	3	Xylene.....	1

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.

Surface Preparation

Concrete must be cured 30 days and be clean, dry, and structurally sound. Surface must be shot blasted, diamond ground or acid etched to achieve an ICRI profile of CSP3 or greater. A properly prepared surface will have the texture of 80-100 grit sandpaper. If the surface is diamond ground, use 20-30 grit diamonds and vacuum the floor twice to remove concrete dust. Excessive dust in the pores of the concrete can compromise the adhesion. **If acid etched, machine scrubbing is required.** Adhere strictly to guidelines listed in the Arizona Polymer Flooring Surface Preparation Manual. Previously coated surfaces must be mechanically cleaned and abraded with 80-100 mesh sandpaper prior to application.

Mixing Instructions

The pot life of Epoxy Novolac 900 is 25 minutes at 77°F. Work-life is shortened at higher temperatures. Pouring material on floor immediately after mixing will extend the work time. Epoxy Novolac 900 is packaged in pre-measured kits. **Proper proportioning and homogenization are absolutely critical for success.** The product is available in ¼, 1 ½ and 3 gallon kits. Do not attempt to mix partial kits. Pour the entire contents of Part B into the Part A container. Use a wooden stir stick to get all of the Part B out of the container. Mix the components for 2 full minutes **by the clock** using a mixing drill. **Do not attempt to hand mix.** Be sure to move the drill around the mixing container scraping the sidewalls and bottom.

Application Recommendations

Epoxy Novolac 900 may be applied by roller, trowel or squeegee. Epoxy Novolac 900 must be applied as an aggregate-filled system at a minimum of 50 mils where impact or mechanical abuse is expected. It may be applied as a self-leveling slurry, slurry-broadcast or troweled system. For detailed installation instruction see Arizona Polymer Flooring application manual.

Handling Precautions

Do not breathe vapors. Use appropriate respirator with a 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.