



**AMERICAN EPOXY  
FLOORING SERVICES**  
877-631-8564

# AE-P90

90% SOLIDS LOW VISCOSITY, LONG POT LIFE POLYASPARTIC POLYUREA

AE-P90 is a stand above all, two component polyaspartic aliphatic polyurea utilizing innovative proprietary nanotechnology. It provides a high gloss clear coating. Its superior penetration and bonding strength can provide years of abrasion, impact, and wear resistance. AE-P90 yields chemical splash, spill resistance and hot tire pick-up resistance much like its epoxy counterpart.

Specifications / Compliances • Dried coating is USDA accepted • Meets OTC, CARB & LADCO VOC restrictions.



## KEY FEATURES & TYPICAL BENEFITS

- Super low odor formula provides a pleasant work environment for contractors, clients and neighbors.
- Long pot life and quick return to services provides comfort and labor cost savings for contractors.
- UV stability allows this to be used in areas saturated by the sun throughout the day.
- Excellent for use in the Chip Floor System.
- Can be tinted for solid color applications with AE-PCP.
- VOC compliant for all areas in the United States and Canada.

## Typical Properties & Technical Information

PROPERTY	VALUE
Solids/Active Content, Percentage by weight	90% +/- 1%
Pot Life	45 minutes
Dry Time - Tack Free	3 - 5 hours
Dry Time - Foot Traffic	4 - 8 hours
Dry Time - Heavy Traffic	24 - 48 hours
Re-Coat Time Window	2 - 18 hours
Application Temperature	50° F - 80° F
VOC (Volatile Organic Compound) Content	Less than 50 grams/Liter mixed A&B
Appearance - Dry	Clear and High Gloss

Information above is based on lab temperatures of 70° - 72°F at 50% RH. Using this product outside these conditions may affect the accuracy of the information above. Always test prior to use!

ALWAYS REFER TO SDS & READ FULL TECH DATA SHEET AND WARRANTY INFORMATION PRIOR TO USE.



## RECOMMENDED APPLICATIONS

- Garages
- Auto Service Centers
- Laboratories
- Cafeterias
- Many other interior concrete floors where a fast curing, high performance coating is necessary.



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## **APPLICATION INSTRUCTIONS**

**MOISTURE TESTING:** Concrete floors, especially those not poured over a proper vapor barrier (plastic), are subject to possible moisture vapor transmission which may result in bubbling and/or failure of high performance coatings. Basic moisture testing can be performed by placing a 4' x 4' sheet of plastic on the concrete surface and securely taping it down on all edges. If after 24 hours the concrete is still dry below the plastic, the surface should be ready to coat. If moisture is present, the coating applicator should perform calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings.

**SURFACE PREPARATION:** The concrete surface must be deemed mechanically and structurally sound, thoroughly clean of debris and completely dry. Concrete must be fully cured a minimum of 28 days. It is recommended to prepare the concrete surface by mechanical means such as shot blasting or diamond grinding with 30 grit or coarser diamonds to achieve a CSP-2 to CSP-3 profile. Vacuum concrete surface several times until dust thoroughly removed. If applying over an existing, fully bonded coating that is outside its recommended recoat window, the surface should be sanded thoroughly with a 60-120 grit sanding screen until the surface is completely dulled with scratches. Vacuum dust thoroughly, rinse with clean water and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! If using acetone follow all safety precautions, make sure no pilot lights, open flames, sources of static electricity, sparks or extreme heat sources are present. Use recommended personal protection for acetone.

Substrate, air and material temperatures must be no less than 50°F and not exceed 80°F. If applied outside these limits the coating may not achieve adequate film formation and may have excessive air entrapment, bubbles, blushing or hazing. Please note that higher substrate, air and material temperatures as well as excessive humidity may speed the cure rate of this product. Cooler temperatures and lower humidity may slow the cure rate of this product.

**FOR PERSONAL PROTECTION USE GLOVES, GOGGLES, RESPIRATOR AND OTHER NECESSARY PPE. REFER TO SDS PRIOR TO USE!**

**TINTING:** Tint with AE-PCP (refer to TDS prior to use). 9-16 oz. per gallon is suggested for a solid, opaque finish. Always add color to Part A and drill mix for 2-3 minutes prior to blending A and B. Color may settle during long term storage and be difficult to redistribute. Always test for color acceptance prior to full application. Multiple coats may be necessary for total opacity. Refer to physical color chart for color selection.

**MIXING:** If mixing less than a full kit, mix Part A and Part B separately with a stir stick, low speed mixer or vigorously shake containers prior to measuring out the smaller kit to ensure uniform distribution of all ingredients. In a clean mixing container, blend 1 Parts A and 1 Part B using a drill mixer for 2-3 minutes. Avoid creating a vortex in the material which could introduce air and/or moisture content to the mixture. Do not mix more than can be applied within the usable pot life time frame. **DO NOT THIN!**

### **COVERAGE RATE:**

*First Coat - Direct to Concrete* : 200 - 300 ft<sup>2</sup> per gallon\*

*Second Coat - Over Existing Coating* : 250 - 350 ft<sup>2</sup> per gallon\*

*Over Media Broadcast Systems* : 175 - 225 ft<sup>2</sup> per gallon\*

\*Coverage rates may vary depending upon surface porosity, texture, application method and prior coating application. Excessive build up should be avoided.

**APPLICATION: OVER SMOOTH SURFACES:** Using a brush and/or 3/8" nap shedless roller, dip and roll the mixed material from a roller pan. 18" rollers are recommended for any surface to speed up application time and reduce roller marks. Start by placing the wet roller at one corner of an approximate 4' x 4' square and roll the material at an angle to opposite corner applying no pressure to the roller. Spread the material across only that square and immediately back-roll to even out material and roller lines. Adjust the size of your square as needed based on the amount of material being applied with the roller. After finishing the square, move on to the next square using the same technique. While applying keep a wet edge to prevent roller marks. It is recommended to work in sections usually using control joints as dividers to ensure proper application results. Apply the mixed material within the usable pot life time frame. If the material becomes thick while applying and sticking to the roller, stop applying and discard the mixed material. At this point it has reached the end of the usable pot life. Do not allow to puddle! Use a brush to remove excess coating in joints. An airless or HVLP sprayer may also be used.

**OVER CHIP SYSTEM SURFACES:** Apply the mixed material by pouring directly over flake and spreading evenly with a flat, flexible squeegee and backroll using a 3/8" nap, shed-free, phenolic core roller. Always fill the roller cover in a puddle before beginning to back roll. Apply evenly at a rate of 175 - 225 square feet per gallon, always keeping a wet edge. Do not allow to puddle. Use a bristle brush to remove excess coating in joints.

**RECOATING:** If possible, recoat within the suggested recoat window located on page 1. Apply additional coats in the same manner as the first coat. Note that higher substrate, air and material temperatures as well as excessive humidity may greatly reduce the acceptable recoat window of this product. When working in higher temperatures, always recoat as early in the recoat window as possible to avoid failure between coats. If recoating outside the suggested recoat window (see page 1) or beyond 24 hours, sand using a 60-120 grit sanding screen to ensure adequate adhesion between coats. If recoating over a textured media broadcast system outside the recoat window it is suggested to use a Malish Mal-Grit to prepare the surface. Vacuum dust thoroughly, rinse with clean water and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! If using acetone follow all safety precautions, make sure no pilot lights, open flames, sources of static electricity, sparks or extreme heat sources are present. Use recommended personal protection for acetone.

**PLEASE NOTE:** Applying material outside the suggested parameters may result in product failure. It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application. Coverage rates may vary for all coatings and substrates depending on porosity, density, texture etc. When applying, adhere to suggested coverage rates. Applying too thin of a coating may cause inadequate film formation, limited performance expectations and/or undesirable finish. Applying too thick may result to bubbling, hazing, etc. **DO NOT USE ON BRICK.**

**COF WARNING:** 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. American Epoxy Flooring Services recommends the use of 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. American Epoxy Flooring Services nor its sales agents will be responsible for injury incurred in a slip and fall accident. For interior floors subjected only to foot traffic, Wax may be used as an acceptable slip-resistant coating as it meets requirements for ASTM D2047.



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## PRECAUTIONS AND LIMITATIONS

- This product will not freeze during storage, however, allow temperatures to rise to 50°F prior to application.
- All HVAC ventilation ducts should be somehow blocked prior to application so solvent fumes are not distributed.
- If using indoor, use proper ventilation while applying and for hours after application to ensure fumes are removed.
- It is not recommended to apply product over carpet, tile, or other types of floor adhesives.
- This product performs best when applied as one or two medium-light coats, not one heavy coat.
- Please be aware that this product when cured may be slippery when wet. An anti-slip additive, such as AE-SLIP-F, can be added to reduce slip hazards.
- All new concrete must be cured for at least 28 days prior to application.
- It is not recommended to thin product. Improper thinning may cause coating to delaminate in a short time frame and other performance issues.
- This product may darken the surface of many new and existing concrete slabs. Test prior to use.
- Physical properties listed on this technical data sheet are typical values not specifications.
- Solvent vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition source locations distant from material handling point.

**CLEAN-UP:** Use xylene. Dispose of containers in accordance with local, state and federal regulations.

**PRODUCT REMOVAL:** Dried, cured coating may be removed with a commercial paint stripper or by using a diamond grinding method, sandblasting method or similar mechanical action.

**SHELF LIFE:** Up to one year from manufacture date in its original, unopened container stored at room temperature.

**PACKAGING:** Available in 2 gallon and 10 gallon kits.

Always read all technical information, label and SDS prior to use. This information can be found online or by calling customer service at the number below.

American Epoxy Flooring Services warrants our products to be of good quality, free of defects and will conform with our published specifications in force on the date of acceptance of the order. As the exclusive remedy for breach of this warranty, we will replace defective materials. Ninety days after American Epoxy Flooring Services has shipped the products, all our warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates, and no action for breach of any said duties may thereafter be commenced. No warranty is expressed or implied as to the length of life of this product, or merchantability or fitness. Liability, if any, is limited to the purchase price of the material. Under no circumstances will American Epoxy Flooring Services be liable for a consequential damage to anyone in excess of the purchase price of the products.

## Extended Technical Data

Pot Life	45 - 60 minutes
Tensile Strength (ASTM D-638)	4,500 to 5,000 psi
Flexibility, 1/8" Mandrel (ASTM D1737)	Pass
Falling Sand Abrasion Resistance (ASTM D-968)	15 - 17 mg loss
Hardness (7 days)	5H - 6H
Heat Resistance	300° F
Water Resistance	Excellent
Gloss 60°	92

## Chemical Resistance

**R** - recommended (little to no visible damage)  
**RC** - recommended conditional (some effect, swelling or discoloration)  
**C** - conditional (wash within one hour of exposure to avoid effects)  
**NR** - not recommended (visible damage will occur)

Urine	R
Xylene	R
MEK	RC
Isopropyl Alcohol	R
Methanol	R
Gasoline	R
Diesel Fuel	R
Skydrol	R
Motor Oil	R
Transmission Fluid	R
Brake Fluid	R
Hydraulic Fluid	R
Water	R
Sugar / Water	R
Chlorinated Water	R
Clorox (10%) Water	R
Vinegar / Water 5%	R
Wine	R
Sodium Hydroxide 25%	R
Muriatic Acid 10%	R
Sulfuric Acid 10%	R
Nitric Acid 10%	NR
Phosphoric Acid 10%	R
Hydrochloric Acid 20%	R

Allow 7 - 14 days for product to fully cure to reach full abrasion and chemical resistance properties.