



## AES-450 Protective Coating

### **Description:**

AES-450 is tough and flexible protective coating. It is a 98% solids Polyamidoamine resin epoxy used in various applications where chemical resistance is required.

### **Resistance:**

AES-450 is highly resistant to acids, solvents, caustics, hydrocarbons, saltwater, and freshwater. It was developed to withstand extreme corrosive and abrasive conditions with excellent outdoor durability.

### **Application Areas:**

AES-450 is excellent as an anti-corrosive protective lining for floors, interior and exterior of tanks, pipe lines, boat bottoms, swimming pools, aquariums, vats, etc. It retains a resilient body, even after final cure. Can be used under constant spillage, immersion conditions, or highly abrasive applications. It also works well as a brushing type adhesive.

### **Preparation:**

Surfaces should be free of rust, mill scale, oil, paint, films, grease, soluble salts, and other contaminants. Sand blasting to white metal is necessary in most cases. Concrete should be etched to provide a profile for optimal adhesion. Latinate and other loosely bound materials should be removed to provide a solid bonding surface. The preparation procedures above are general guidelines.

### **Mixing:**

*The mixing of Part A and B is very important!* Material is supplied in two containers as a unit.

Always mix a complete unit in the proportion supplied. Agitate each part separately before combining the two. AES-450 has a mixing ratio of 3 parts "B" to 1 part "A" (3:1). Use a jiffy mixer to thoroughly combine both parts and mix for 2 minutes.

Distributed by: BEST MATERIALS LLC, Phoenix AZ  
800-474-7570 602-272-8128 [www.BestMaterials.com](http://www.BestMaterials.com)  
Email: [Sales@BestMaterials.com](mailto:Sales@BestMaterials.com)

## **Application:**

Apply AES-450 with a brush, 3/8" nap roller cover, or conventional spray equipment. Airless spray equipment should not be used. The heat created by an airless system can shorten pot life considerably and damage the coating and equipment. *Caution! Without the use of aggregate, AES-450 is slippery when wet.*

## **DRY FILM APPLICATIONS**

To get dry film of:	Apply Sq.Ft./gal.
8 mils	200 sq. ft.
16 mils	100 sq. ft.

Heavy coats may be applied (up to 20 mils) without danger of bubbling or pinholes in film. Several coats may be necessary in building up a heavy tank lining. Do not apply heavier than 20 mils per coat or sagging will occur. For heavier film, apply additional coats. *Additional coats must be applied as soon as the surface is tack free or within 36 hours.*

## **Clean Up:**

Application equipment should be cleaned immediately with Lacquer Thinner. Use Apple Cider Vinegar to clean hands and skin. **Do not allow AES-450 to remain on tools! Once it sets and is cured, it is extremely difficult to remove.**

## **Curing Time:**

Pot Life:	1 hr @ 80 °F
Drying Time:	4 hrs @ 80 °F
Complete:	48 hrs @ 80 °F

## **Packaging:**

### 1-gallon units:

1. 1 gal. can containing 3 qts. of Base (Part "B")
2. 1 qt. can full, containing Activator (Part "A")

**Colors:** AES Standard Colors

**Solids content:** 98% Solids

## **Mixing Ratio:**

3 parts "B" to 1 part "A" (3:1)

## **Abrasion Resistance (ASTM D4060):**

Taber abraser CS-17 calibrase wheel at 4000 cycles with 1.5 mils wear and .30 grams lost.

## **Adhesion-Pull-Off (D4541):**

Concrete: 100 % substrate failure @ 1181 psi  
Steel: 80% adhesive failure @ 2337 psi

**Impact Resistance (D2794):**

16 inch lbs. direct - passed

**Pencil Hardness (D3363):** 6H - passed

**Compression (C579-96):** 9,585 psi

**Flammability:**

Flammable during application. Will not support combustion when cured.

For further assistance, contact one of our technicians via phone or e-mail.

MSDS available for health and safety data.

For emergency information contact:

**CHEMTREC @ 1-800-424-9300**

**Safety:**

This product (and any recommended thinners) contains solvents and/or chemical ingredients. Adequate health and safety precautions should be observed during storage, handling, use, and drying periods. For safe usage, user is specifically directed to consult the current Material Safety Data Sheet for this product. When using this product in a confined space or closed area, consult the OSHA or ANSI bulletins on safety requirements.

The information as set forth in the technical data contained herein has been developed based on test and evaluations made by Advanced Epoxy Systems, Inc. for standard coating applications. We believe this information is the best currently available on the subject. We make no guarantee of results and assume no obligation or liability in connection with this information. It is offered as possible helpful suggestion, any experimentation you may care to undertake along these lines, is at your own risk. You should test the coating material to determine if it is suitable for the application intended. It is supplied on the condition that you shall make your own tests to determine its suitability. AES shall have no liability for incidental or consequential damages, indirect or direct. Our liability is limited to the net selling price of the purchased product(s) or the replacement of our product, at our option.