

## **APF COLOR FUSE**

### **PRODUCT DESCRIPTION AND USE**

APF Color Fuse is a proprietary blend of specialized water soluble polymers and liquid dyes designed for staining both conventional and polymer modified concrete. A novel and highly effective adhesion promoter has been incorporated into the formulation that gives Color Fuse exceptional adhesion to conventional concrete substrates, giving it a major advantage over competitive water-based stains. Adhesion testing on applications done over clean, profiled surfaces showed tensile pull strengths of 400-450 psi with cohesive failure of the concrete. These values match those shown in amine cured epoxy systems. This high bond strength gives the contractor a material he can use confidently in more challenging applications such as vehicle areas without fear of adhesion failure. APF Color Fuse is designed to be reduced 50-100% with water in the field. This feature reduces shipping costs and gives good application economics.

APF Color Fuse is formulated to achieve the variegated color tones of acid stain without the necessity of rinsing and neutralizing the surface after application. Exposure to toxic acids and disposal problems are eliminated. It is available in 18 colors that can be blended or overlaid to create a wide variety of vibrant color hues. The material is translucent when used sparingly and provides a more opaque look as additional coats are applied. The various application techniques possible with this product allow for a high degree of creative expression. APF Color Fuse is designed to be sealed with either solvent based or water based polyurethane finish coats. In exterior applications, a UV absorber package must be added to the clear finish coat to prevent fading.

APF Color Fuse is ideal for creating unique looks in many commercial and residential settings. Recommended applications include restaurants, showrooms, offices, home interiors, patios, garage floors, and driveways.

### **Chemical Composition**

Water-based polymers, dyes and proprietary adhesion promoter.

### **Colors**

18 standard colors plus black.

### **Limitations**

- Substrate must be 40° and rising.
- Do not apply to smooth, unprofiled surfaces.
- A UV stabilized clear coat must be used in exterior applications.

### **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.

## **SPECIALIZED FLOOR COATINGS & DECORATIVE CONCRETE SYSTEMS**

## **TECHNICAL DATA**

### **Physical Properties**

Solids Content, by Weight .....	22%
Volatile Organic Compounds.....	80 gms./ltr.
Recoat (77°F, 50% RH).....	15-60 minutes
Adhesion to acid etched or ground concrete (ASTM 451) .....	400-450 psi concrete failure

## **GENERAL INFORMATION**

### **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 suitable testing to determine if excessive levels of vapor emissions are present before applying any coatings. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions or related high levels of alkalinity.

### **Surface Preparation**

Surface must be clean and sound and have at least a 5 mil profile (similar to 120 grit sandpaper). Testing has shown that adhesion increases with the amount of surface profile. It is better to have too much profile than too little. Conventional concrete must be acid etched or diamond ground. If acid etched, a floor machine with a nylogrit brush must be used and the surface neutralized with APF Super Base Neutralizer or ammonia. **Acid residues left on the surface will compromise adhesion.** Read and follow the APF Surface Preparation Guidelines.

If the surface is prepared by diamond grinding, grind thoroughly to "open up" the surface. Remove concrete dust by thoroughly vacuuming or rinsing with high pressure water.

### **Packaging**

Color Fuse is packaged as a clear base to which the contractor or distributor adds the dyes. The dyes are packaged in 1 gallon, 1 quart and 1 pint containers. To obtain the color chart color, add one 3 oz. Dixie cup of dye for each gallon of clear base. Be sure to shake the dye container well before using.

### **Application Recommendations**

Stir the material well before each use. Add the dye as described above. Reduce Color Fuse 50-200% with water prior to use. The color chart color can be closely approximated by reducing the material 100% with water and applying two coats. If a lighter color is desired, add less dye to the base material. The less reduction water used, the faster the color development. Do not add more than 200% water (2 part water to 1 part base material. Dampen surface prior to application. This improves both penetration and the appearance of the stain. Application is most easily done with a pump-up sprayer, overlapping 25%-50%. Material may also be applied by sponging or ragging to achieve a faux finish.

Allow the first coat to dry (usually 30-60 minutes). Replacing 10% of the reduction water with isopropyl alcohol will speed the dry in cool, damp conditions. Apply subsequent coats as needed to obtain the intensity of color desired. Variations in color will be achieved by differences in the amounts of material deposited. Indentations and shallows in the substrate will naturally become darker than the high spots. This produces a desirable "antiquing" effect. Additional variations in tone may be achieved by intentionally spraying a different color unevenly over the previously colored surface, or by applying two colors at the same time and allowing them to run together. Total usage of the material may vary from 150-300 sq. ft. per gallon depending upon the desired effect.

### **Application Recommendations (Cont'd.)**

Color Fuse is available in 18 colors plus black that can be mixed or overlaid. Generally, the more coats of material applied, the darker and more opaque the surface becomes. A modified version of the dyes may be added to 100% solids epoxy or to polyurethane materials to achieve an even greater variety of looks. Consult the factory.

### **Clear Coat Applications**

Color Fuse is designed to be used with a protective clear coat when applied as a flooring treatment. A variety of clear coats may be used over Color Fuse. **If the application is exterior, the clear coat must contain a UV absorber package to protect the dye.** Polyurethane 200, 250 and 501 may be applied as soon as the stain is dry enough to walk on. One or two coats of clear may be used depending upon service conditions. If using Polyurethane 100 or Polyurethane 100 VOC, a coat of Polyurethane 250 must be used over the stain as a tie coat. Consult your distributor or the factory for clear recommendations for a particular area.

### **Handling Precautions**

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.