

## PRODUCT DESCRIPTION

APF EPOXY 450 is a medium viscosity, 100% solids resin system used in a variety of flooring applications including high build coatings, aggregate-filled flooring, and decorative vinyl mosaic flake, color quartz, and epoxy pebble applications. APF EPOXY 450 provides an outstanding balance of physical strength, flexibility, and chemical resistance. APF EPOXY 450 has excellent clarity for use over color quartz aggregate and decorative architectural concrete. The pigmented material features high pigment loading for excellent substrate hide and color consistency when roller applied.

APF EPOXY 450 is a medium-viscosity product for improved flow and excellent application qualities. The medium viscosity allows for the addition of fine silica fillers for easy application of "slurry" type floors. The versatility of APF EPOXY 450 makes it ideal as a primer, finish coat or aggregate binder in a wide variety of flooring applications including manufacturing facilities, warehouses, correctional facilities, loading docks,, and other areas requiring high- performance flooring.

APF EPOXY 450 is not recommended for food, beverage, harsh chemical, or routine hot water wash-down applications. Consult APF Technical Service for more information.

## USES

- Manufacturing
- Pharmaceutical
- Warehouse
- Retail
- Health Care & Institutional
- Correctional Facilities
- Veterinary/Animal Care

## ADVANTAGES

- May be used as a primer, finish coat, or aggregate binder

## COLORS

Clear & 18 Standard colors available.

## PACKAGING

Supplied in complete A+B 1.5 gallon (5.68 L), 15 gallon (56.8 L) or 165 gallon (625 L) total volume mixed units.

Mix ratio 2A : 1B

## TECHNICAL DATA

Mixing Ratio by Volume	2A : 1B
VOC Clear	1 g/l
VOC Pigmented	20 g/l
Solids Content, by Volume	100%
Hardness, Shore D ASTM D-2240	78
Tensile Strength psi (ASTM D-638)	6,230
Elongation, % (ASTM D-638)	11%
Compressive Strength, psi (ASTM D-695)	19,501
Yield Strength, psi (ASTM D-695)	9,850
Flexural Strength, psi (ASTM D-790)	9,680
Bond Strength to Concrete (ASTM D-4541)	>450 psi, concrete fails
Cure Time (77°F)	
Dry to Touch	~6 Hours
Recoat Final Flooring Application	~16 Hours
Full Cure	~7 Days
Fast Cure, Dry to Touch	~3 Hours
Fast Cure, Recoat, Final Flooring	~7 Hours
Full Cure	5 Days

Cure times are dependent on temperature and humidity

## SURFACE PREPARATION

Concrete must be cured for at least 30 days and be clean, structurally sound, and free of wax, loose paint or curing compounds. Concrete should be shot blasted to achieve a surface minimum texture of ICRI 3 - 4. Refer to ICRI Technical Guidelines 310-330 *Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair*. Acid etching is not recommended and will void Manufacturer's warranty. Carefully follow the guidelines listed in the Arizona Polymer Flooring published application instructions available at [www.apfepoxy.com](http://www.apfepoxy.com). Vacuum prepared concrete surface to remove all dust. Previously coated surfaces that are soundly adhered must be mechanically cleaned and abraded to achieve uniformly gloss-free, open texture.

## MIXING

APF EPOXY 450 is packaged in premeasured and bulk units. Proper proportioning and homogenization are critical for success. Mixing ratio is 2A : 1B. Premix both components for 3 minutes prior to blending. Drum units should be mechanically premixed with electric or pneumatic drum head mixer. Do not attempt to hand mix. Be sure to move the drill around the mixing container scraping the sidewalls and bottom.

Add color pack if required to A component and blend thoroughly before adding B component. Bone-117, Safety Blue-077, Safety Red-083, Safety Yellow-063 & White-000 require 1 quart color pack loading for adequate hiding and coverage.

Add component B to component A and mix with medium speed drill mixer for three [3] minutes. Distribute material immediately after complete mixing.

## APPLICATION

As a primer:

Apply with squeegee, back roll with quality 1/4- or 3/8-inch solvent resistant roller cover. Apply in thin layer of 5 - 8 mils (0.15 - 0.20mm). Do not apply by dip-and-roll, distribute material on concrete surface immediately after mixing. Ensure that primed surface is pore and pin-hole free. Apply second coat if necessary to ensure pore-free surface for subsequent applications.

Binder or Intermediate Applications: Refer to appropriate APF Application Instructions.

## CONCRETE MOISTURE

Test for concrete moisture in accordance with ASTM F2170 – 19. If moisture is indicated to be in excess of 85%, apply APF Vapor-Solve® system in accordance with the published technical data sheet. Consult APF Technical Service for further information.

## LIMITATIONS

- Prior to application, measure and confirm that ambient temperature and humidity conditions are at least 5°F over dew point.
- High humidity/low temperature will prolong cure time
- Use of kerosene or propane forced air heating equipment during application may cause discoloration and finish defects.

## SHELF LIFE

One [1] year from date of manufacture, in original unopened container. Store away from heat sources between 50°F and 85°F (10°C – 30°C).

## HANDLING & SAFETY

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. Avoid contact with skin; wear protective gloves. User must read and understand Safety Data Sheet before using. APF Safety Data Sheets are available at [www.apfepoxy.com](http://www.apfepoxy.com)

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## STANDARD WARRANTY STATEMENT

ICP BUILDING SOLUTIONS GROUP, the owner of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defect. No warranty shall be in effect until ICP Building Solutions Group Terms and Conditions of Sales are met, including payment and cooperative promotional considerations. ICP Building Solutions Group warrants that the covered product is free of defect and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is installed within its published shelf life, in strict conformance with specifications, and/or written project-specific installation guidance from authorized representation. ICP Building Solutions Group warrants only when product is handled, stored, mixed and applied in accordance with published recommendations. It is purchaser responsibility to initiate any claim against this warranty within a reasonable time. If determined by ICP that the product does not meet this warranty, the liability of ICP Building Solutions Group shall be limited to refund of the purchase price or provision of replacement product, neither needing to exceed the affected area as determined by a person authorized to perform technical representation for ICP Building Solutions Group. To obtain a replacement or refund the customer must provide written notice containing full details of the non-conformity suspected. The purchaser, owner or their representative shall notify ICP Building Solutions Group, in writing, within five (5) working days concerning any potential defect, or as needed before conditions deteriorate and increase repair costs. ICP Building Solutions Group reserves the right to inspect the non-conforming material prior to replacement. ICP Building Solutions Group may in its discretion refund the purchase price received by ICP Building Solutions Group in lieu of replacing the material. Except for the expressed warranty stated above, there are no other warranties, expressed or implied, including without limitation, any implied warranty of merchantability or fitness for purpose. ICP Building Solutions Group's obligation shall not extend beyond the obligations expressly undertaken above and ICP Building Solutions Group shall have no liability or responsibility to purchaser or any third party for any loss, cost, expense, damage or liability, whether direct or indirect, or for incidental or consequential damages. No customer, distributor, or representative of ICP Building Solutions Group is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of ICP Building Solutions.