

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 and ease of application. APF EPOXY 450 has excellent clarity for use with 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 handling at lower temperatures and excellent application qualities. The medium viscosity allows for the addition of fine silica fillers for easy application of "slurry" type floors. A Fast Cure hardener is available when cold weather cure down to 40°F (4.5°C) or accelerated room temperature cure is required. A UVR additive is available for applications that require UV resistance. The versatility of APF EPOXY 450 makes it ideal as a primer, finish coat or aggregate binder in a wide variety of flooring applications.

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.

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, have a minimum compressive strength of 3000 psi, be clean, structurally sound, and free of wax, loose paint or curing compounds. Concrete should be properly prepared to achieve a surface minimum texture of ICRI/CSP 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 APF published application instructions available at www.apfepoxy.com. Vacuum the 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 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.

As a coating: Apply with squeegee, back roll with quality 1/4- or 3/8-inch solvent resistant roller cover. Apply in thin layer of 8 - 16 mils (0.20 - 0.40mm). 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.

CONCRETE MOISTURE

It is the applicators responsibility to Test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF VaporSolve® 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 with the exception of the Clear A Component only. Store away from heat sources. Store between 50°F and 85°F (10°C - 30°C). Do not allow to freeze.

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

STANDARD WARRANTY STATEMENT

APF 450 PDS 01.04.24

ICP Construction, Inc. ("we" "us" or "our"), manufacturer of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defects in material only. No warranty shall be in effect until our Terms and Conditions of Sales (<https://www.icpgroup.com/wp-content/uploads/ICP-Group-Terms-and-Conditions-of-Sale.pdf>) are met, including payment and cooperative promotional considerations. We warrant that the covered product is free of defects in material only and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is (a) installed within its published shelf life, in strict conformance with specifications, and (b) handled, stored, mixed, and applied in accordance with our written instructions. It is your responsibility to initiate any claim against this warranty within the time frame specified below. If we determine that the product meets the requirements of this warranty, then we will, at our sole discretion, either refund the purchase price of the product or provide replacement product, in each case not to exceed the affected area as determined by our authorized technical representative. To obtain replacement or refund you must (a) provide timely written notice to us specifying in detail the non-conformity suspected (no later than five (5) working days after discovery), and (b) provide proof of purchase. We reserve the right to inspect the product prior to replacement. EXCEPT FOR THE EXPRESS WARRANTY ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED OF ITS ESSENTIAL PURPOSE. "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, WITHOUT LIMITATION, LOSS OF USE, INCOME, OR PROFIT, OR LOSSES SUSTAINED AS THE RESULT OF INJURY TO ANY PERSON, OR LOSS OF OR DAMAGE TO ANY PROPERTY (INCLUDING, WITHOUT LIMITATION, PROPERTY HANDLED OR PROCESSED THROUGH THE USE OF THE PRODUCTS), DAMAGES OR LOSSES RESULTING FROM CLAIMS OF OTHER PERSONS AGAINST YOU, OR DAMAGES OR LOSSES SUSTAINED AS THE RESULT OF WORK STOPPAGE, OR REMOVAL AND REPLACEMENT COSTS AND COSTS OF LABOR. IN NO EVENT SHALL OUR LIABILITY ARISING IN CONNECTION WITH OR UNDER THIS WARRANTY (REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW) EXCEED THE AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT ONLY. THIS LIMITED WARRANTY PROVIDES YOUR EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT. If you do not agree with these terms, you may return the product within thirty (30) days of purchase for a full refund, provided the product is not opened, altered, or adulterated in any manner, less any shipping and handling charges of any sort. Use of the product, or retention of the product beyond thirty (30) days, constitutes your acceptance of this limited and exclusive warranty. No customer, distributor, or representative of ours 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 us.