



**TECHNICAL DATA- AF-003
WATER BASED EPOXY**

PRODUCT DESCRIPTION:

AF-003 is a two component water based epoxy coating that exhibits excellent characteristics that rival solvent based products. AF-003 has superb chemical resistance, abrasion resistance, and substrate penetration.

RECOMMENDED FOR:

Recommended for priming or coating concrete, wood or masonry. This product can withstand exposure to many common solvents and chemicals.

SOLIDS BY WEIGHT:

Mixed = 53% (colors); 45% (clear); (+, - 2%)

SOLIDS BY VOLUME:

Mixed = 41% (colors); 36% (clear); (+, - 2%)

VOLATILE ORGANIC CONTENT:

Colors = 1.01 pounds per gallon (mixed)

Clear = 1.0 pounds per gallon (mixed)

STANDARD COLORS:

Off white, light gray, medium gray, tile red, beige, and amber clear.

NOTE: The clear (gardner 11) is not water clear and is not suitable for topcoating over previously color coated floors. The clear is suitable as a primer or concrete sealer only.

RECOMMENDED FILM THICKNESS:

5 -7 mils per coat wet thickness (yields 2-3 mils dry)

COVERAGE PER GALLON:

229 to 320 square feet @ 5-7 mils wet thickness

PACKAGING INFORMATION

2 gallon and 5 gallon kits (volume approx.)

MIX RATIO:

Colors= 8.55# part A (.80 gallons, approximate) to 1.75# part B (.20 gallons, approximate)

Clear= 6.55# part A (.80 gallons, approximate) to 1.90# part B (.20 gallons, approximate)

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Satin gloss (40-80 at 60 degrees @ Erichsen glossmeter)

ABRASION RESISTANCE:

Taber adrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 54 mg loss

IMPACT RESISTANCE:

Gardner Impact, direct = 50 in.lb. (passed)

FLEXIBILITY:

No cracks on a 1/8" mandrel

ADHESION:

425 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed = 900-1200 cps (colors); 400-900 cps (clear) (typical)

DOT CLASSIFICATIONS:

Not regulated

CURE SCHEDULE: (70F)

pot life – 1 gallon volume 1.0 – 1.5 hours
tack free (dry to touch)..... 5-8 hours
recoat or topcoat..... 7-10 hours
light foot traffic.....16-24 hours
full cure (heavy traffic).....2-7 days

APPLICATION TEMPERATURE:

55-90 degrees F with relative humidity below 75%

CHEMICAL RESISTANCE:

REAGENT	RATING
acetic acid 5%	B
xylene	B
mek	A
gasoline	B
10% sodium hydroxide	C
50% sodium hydroxide	B
10% sulfuric	B
10% hrdochloric acid	B
20% nitric acid	A
ethylene glycol	C

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

PRIMER:

None required

TOPCOAT:

Optional – Many products are suitable as topcoats including multiple coats of this product. For added chemical resistance, color stability or UV stability, topcoat with a suitable aliphatic urethane.

LIMITATIONS:

- * Color or gloss may be affected by humidity, low temperatures, chemical exposure or sodium vapor lighting.
- * Product will yellow in the presence of UV light
- * For best results use a 1/4" or 3/8" nap roller.
- * Slab on grade requires moisture barrier
- * Substrate temperature must be 5 °F above dew point.
- * All new concrete must be cured for at least 30 days
- * Product color will vary from batch to batch. Use only product from the same batch for an entire job.
- * Improper mixing or too thick of an application may result in product failure
- * Light or bright colors (white, safety colors etc.) may require multiple coats or a topcoat to achieve a satisfactory hide, depending on the substrate.
- * Physical properties listed on this technical data sheet are typical values and not specifications.
- * See reverse side for limitations of our liability and warranty.
- * See reverse side for application instructions.

MIXING AND APPLICATION INSTRUCTIONS (AF-003)

- 1) **PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Keep from freezing.
- 2) **SURFACE PREPARATION:** Surface preparation will vary according to the type of complete system to be applied. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. For a complete system build higher than 10 mils dry, we recommend a fine brush blast (shot blast). All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete has an appropriate vapor barrier. This can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate does not show signs of eventual hydrostatic pressure problems that may later cause disbanding. However, this product can be applied to a damp floor as long as there are not standing puddles.
- 3) **PRODUCT MIXING:** This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer to the front of this technical data for proper weight mix ratios. After the two parts are combined, mixes well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using.
- 4) **PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Apply material with relative humidity within the parameters shown on the technical data. When the end of the pot life has been reached, you will find that the material becomes hard to apply and will actually tend to roll back up onto the roller. Do not try to continue application when the coating has reached this step. Applications made at different times with differing environmental conditions, may show slight variations in gloss.
- 5) **RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that all of the solvents and water have evaporated from the coating during the curing process. The information on the front side are reliable guidelines to follow. However, it is best to test the coating before recoating or topcoating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat or topcoat can be started. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy overlays and coatings as well as urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.
- 6) **CLEANUP:** Use PM solvent
- 7) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- 8) **RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

*We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may **CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.***