

TECHNICAL DATA SHEET

WATER BASED EPOXY

PRODUCT DESCRIPTION:

MF015 is a two component water based epoxy coating that exhibits excellent characteristics that rival solvent based products. **MF015** has superb chemical resistance, abrasion resistance, and substrate penetration.

RECOMMENDED FOR:

MF015 is 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% (colours); 45% (clear); (+, - 2%)

VOLATILE ORGANIC COMPOUND:

Colours = 1.01 lbs per gallon (mixed) (regulatory VOC = 175g/l)

Clear = 1.0 lbs per gallon (mixed) (regulatory VOC = 230g/l)

STANDARD COLOURS:

Clear – Super hide white – Off white – Light grey– Black – Medium grey – Beige – Tile red – Light blue – Blue – Green

SAFETY COLOURS:

Safety yellow – Safety red

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

RECOMMENDED THICKNESS:

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

COVERAGE PER GALLON:

229 to 320 square feet @ 5-6 mils wet thickness

PACKAGING

2 gallon kits

MIX RATIO:

Colours= 8.55 lbs part A (0.80 gallons, approximately) to 1.75 lbs part B (0.20 gallons, approximately)

Clear= 6.55 lbs part A (0.80 gallons, approximately) to 1.90 lbs part B (0.20 gallons, approximately)

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Gloss level = 40-80 at 60 degrees @ glossmeter

ABRASION RESISTANCE:

Taber adrasor CS-17 calibre 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" (3mm) mandrel

ADHESION:

425 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

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

TDG CLASSIFICATIONS:

"not regulated"

APPLICATION TEMPERATURE:

13-32°C (55-90°F) with relative humidity below 75%

DRYING TIMES: (21°C / 70°F) 50% RH

Pot life – 1 gal..... 1 - 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

CHEMICAL RESISTANCE:

REAGENT	RATING
5% Acetic acid	B
Xylene	B
Mek	A
Gasoline	B
10% sodium hydroxide	C
50% sodium hydroxide	B
10% sulfuric	B
10% hydrochloric 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:

Not required.

TOPCOAT:

Optional – Many products are suitable as topcoats including multiple coats of **MF015**. For added chemical resistance, colour stability, or UV stability, topcoats with a suitable aliphatic urethane

LIMITATIONS:

- Colour 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 5mm or 10mm nap roller.
- Slab on grade requires moisture barrier.
- Substrate temperature must be 3°C/ 5°F above dew point.
- All new concrete must be cured for at least 30 days
- Product colour may vary from batch to batch. Always use 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 colours (white, safety colours etc.) may require multiple coats or a topcoat in order to achieve a satisfactory hide, depending on the substrate.

MIXING AND APPLICATION INSTRUCTIONS

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should remain between 15°C and 32°C (60°F and 90°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' X 4' 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 disbonding. However, this product can be applied to a damp floor as long as there are no standing puddles
- 3) **PRODUCT MIXING:** This product comes pre-packaged by weight. Kits should be mixed in their entirety. Pre-mix each component separately for 2-3 minutes each. Then combine the two components, mix 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. If partial kits are to be used, refer to the front of this technical data sheet for proper weight mix ratios.
- 4) **PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. Maintain the recommended temperatures and relative humidity during the application and curing process. 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. However, it is best to test the coating before recoating and top coating. 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 a longer cure time of the product before recoating or top coating can commence. Before recoating or top coating, verify 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 top coating 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 lukewarm soapy water if the product is still of liquid consistency, use acetone if it is sticky and use xylene if it is almost dry.
- 7) **FLOOR CLEANING:** Caution! Some cleaners may affect the colour of the floor installed. Test each cleaner in a small area, by applying your cleaning technique. If no ill effects are noted, you can continue to clean with the product.
- 8) **RESTRICTIONS:** Restrict the use of the floor to light traffic and mild chemicals until the coating is fully cured. It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.
- 10) **CAUTION:** Exposure during the curing stage of the coating to the by-products of **propane** combustion may cause discoloration to occur. During application and curing, propane fueled fork-lifts and other vehicles or propane fueled heaters should not be used in the area until the coating is fully cured, at least 72 hours.

Before using any product, be sure the Safety Data Sheet is read and understood.

Please contact your MF Paints Inc. representative at 1-800-363-8034 for further information.

WARRANTY

This product will give full satisfaction if applied according to the manufacturer's instructions. Manufacturer's liability is limited to the replacement of the product and does not include manpower if found to be defective upon inspection.

Contact your municipality to dispose of the container and any surplus in a safe and ecological manner.