

TECHNICAL DATA SHEET

100% SOLIDS EPOXY SEAMLESS BINDER

PRODUCT DESCRIPTION:

MF137M is a two components 100% solids epoxy seal coating that can be used either as a coating, or filled with paint chips, marble chips and coloured sand mixtures to provide an infinite array of colour schemes or patterns.

RECOMMENDED FOR:

MF137M is recommended for warehouses, kitchens, restrooms, and other areas where either a high build clear product is needed or where a decorative filled floor is desired.

SOLIDS BY WEIGHT:

100%

VOLATILE ORGANIC COMPOUND:

Less than 2 g/L

STANDARD COLOURS:

Clear – gardner colour 1-2

RECOMMENDED FILM THICKNESS:

16-18 mils

COVERAGE PER GALLON:

90-100 square feet per gallon @ 16-18 mils

PACKAGING:

3 gallon kits (2.95 gallons net approximately)

MIX RATIO:

9.0 lbs part A (0.99 gallons, approximately) to 4.15 lbs part B (0.49 gallons, approximately)

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Gloss (60 - 90 at 60 degrees @ glossmeter)

ABRASION RESISTANCE:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 36 mg loss

FLEXURAL STRENGTH:

7 400 psi @ ASTM D790

COMPRESSIVE STRENGTH:

11 200 psi @ ASTM D695

ADHESION:

350 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed = 700-1000 cps (typical)

TDG CLASSIFICATIONS:

Part A “not regulated”

Part B “LIMITED QUANTITY”

TENSILE STRENGTH:

7 600 psi @ ASTM D638

ULTIMATE ELONGATION:

4.1%

GARDNER VARIABLE IMPACTOR:

50”lbs direct – passed

HARDNESS:

Shore D = 81

DRYING TIMES: (21°C / 70°F) @50% RH

Pot life – 1 ½ gallon volume20-30 minutes

Tack free (dry to touch).....6-8 hours

Recoat or topcoat..... 10-16 hours

Light foot traffic.....14-18 hours

Full cure (heavy traffic)...2-7 days

APPLICATION TEMPERATURE:

13°C – 32°C (55°F – 90°F)

CHEMICAL RESISTANCE:

| <u>REAGENT</u> | <u>RATING</u> |
|-------------------------|---------------|
| Butanol | C |
| Xylene | C |
| 1, 1, 1 trichloroethane | B |
| MEK | A |
| Methanol | A |
| Ethyl alcohol | C |
| Skydrol | B |
| 10% sodium hydroxide | E |
| 50% sodium hydroxide | D |
| 10% sulfuric acid | C |
| 70% sulfuric acid | A |
| 10% HC1 (aq) | C |
| 5% acetic acid | B |

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:

Recommended; **MF015 - clear**

TOPCOAT:

MF137M in aggregate filled systems, with or without a clear urethane topcoat.

LIMITATIONS:

- Colour stability or gloss may be affected by environmental conditions such as high humidity, chemical exposure, UV exposure or exposure to lighting such as sodium vapor lights.
- Colours may vary from batch to batch. Therefore, always use product from the same batch for an entire job.
- This product is not UV colour stable. Clear aliphatic urethane topcoats reduce (UV light) colour changes.
- Substrate temperature must be 3°C/5°F above dew point.
- For best results, apply with a 5mm nap roller.
- All new concrete must be cured for at least 30 days prior to application.
- Apply a suitable primer before using this product.

MIXING AND APPLICATION INSTRUCTIONS

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Continuous storage should remain between 15°C – 32°C (60°F – 90°F). Low temperatures or temperature fluctuations may cause crystallization.
- 2) **SURFACE PREPARATION:** The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; 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 is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.
- 3) **PRIMING:** A suitable primer such as **MF015** should be used before applying this product. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.
- 4) **PRODUCT MIXING:** Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. 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. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.
- 5) **PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. However, the material can also be applied by a suitable notched squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. This product can be used with various coloured sand in a broadcast system or other suitable aggregate can be used in conjunction with this product to achieve a variety of colour and application patterns. When using as a broadcast binder, always evaluate performance parameters with a test area which is dependent on aggregate size and thickness, prior to application. Contact your representative for details as necessary.
- 6) **RECOAT OR TOP COATING:** If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. 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, 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 top coating or recoating. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.
- 7) **CLEANUP:** Clean tools and equipment with an epoxy cleaner/thinner (xylene)
- 8) **FLOOR CLEANING:** Caution! Some cleaners may affect the colour. Test each cleaner in a small area. If no ill effects are noted, you can continue to clean with the product.
- 9) **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.