

TECHNICAL DATA SHEET

HIGH TRAFFIC URETHANE COATING

PRODUCT DESCRIPTION:

MF359 is a three component aliphatic urethane floor finish that exhibits excellent characteristics for abrasion resistance, chemical resistance, flexibility, weathering and UV stability.

RECOMMENDED FOR:

MF359 is recommended for auto service centers, warehouses, computer rooms, laboratories, aircraft hangers, cafeterias, and some chemical exposure areas.

SOLIDS BY WEIGHT:

Mixed= 93%

SOLIDS BY VOLUME:

92% (±2%)

VOLATILE ORGANIC COMPOUND:

Less than 95 grams per liter (for colors or clear mixed)

STANDARD COLOURS:

Clear (slightly amber).

COVERAGE PER GALLON KIT (clear):

600 square feet per gallon kit

PACKAGING:

1 gallon kits (1-pint part A) with (0.70 gallons' part B) and (3.0lbs part C.) (weights and volumes approximate) (Approximately 1 gallon)

MIX RATIO:

1.08lbs part A with 6.45lbs part B and 3.0lbs part C (weights approximate)

FINISH CHARACTERISTICS:

Semi-gloss/eggshell (typical gloss is 20-40 @ 60 degrees)

SHELF LIFE:

6 months in unopened containers.

ABRASION RESISTANCE:

Taber abrasor CS-17 calibre wheel with 1000-gram total load and 500 cycles = 15-20 mg loss

IMPACT RESISTANCE:

Gardner Impact = 160 in. lb. (passed)

FLEXIBILITY:

No cracks on a 3mm (1/8") mandrel

ADHESION:

On a properly prepared epoxy **basecoat**, the adhesion should exceed 300 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed liquids A/B = 1000-2000 cps (typical)

TDG CLASSIFICATIONS:

Part A "Not regulated"

Part B "Not regulated"

Part C "Not regulated"

APPLICATION TEMPERATURE:

10°C – 32°C (50°F – 90°F) with relative humidity between 50-90%

DRYING TIMES: (21°C / 70°F) @ 50% RH

Pot life – 1 gallon volume (maximum time to apply)1-2 hours

Tack free (dry to touch).....3-6 hours

Recoat or topcoat..... 6-10 hours

Light foot traffic.....14-24 hours

Full cure (heavy traffic)...3-5 days

CHEMICAL RESISTANCE:

<u>REAGENT</u>	<u>RATING</u>
Acetic acid 5%	C
Mek	B
Gasoline	D
50% sodium hydroxide	D
10% sulfuric acid	D
10% hydrochloric acid	D
20% nitric acid	C
Ethylene glycol	D

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:

Apply a suitable basecoat. For thin mil systems, we recommend MF015 in clear for clear MF359. For a high build clear system, we recommend MF137MUV clear for the intermediate coat.

TOPCOAT:

Not recommended

LIMITATIONS:

- Colour or gloss may be affected by humidity, temperatures, chemical exposure, application thickness, exposure to lighting such as sodium vapor lights. For best results use a high quality 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
- Tire contact may cause staining and discolouration
- Do not use if relative humidity is below 25%
- Material has to be applied at the recommended thickness per gallon uniformly for proper appearance and development of physical properties.
- The epoxy basecoat must be abraded/de-glossed for proper adhesion.

MIXING AND APPLICATION INSTRUCTIONS

- 1) **PRODUCT STORAGE:** Store product at normal room temperature before using. Storage should remain between 15°C – 32°C (60°F – 90°F).
- 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 over concrete, (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 is dry; 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 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. It is crucial that the epoxy basecoat is thoroughly sanded until the surface is de-glossed and appropriately and thoroughly scratched. It is recommended that a minimum 80 grit paper be used.
- 3) **PRODUCT MIXING:** This product has three components. Ensure that all 3 components are homogenous prior to final mixing. The part A should be mixed with the part B thoroughly and then the part C should be added and mixed in well to insure a uniform mixture. **The kits come prepackaged and should be used in their entirety and should not be broken down.** After the three parts are combined, mix extremely well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. Avoid whipping air into the coating. Improper mixing may result in product failure. **Once the material is opened, it cannot be re-sealed for later use.**
- 4) **PRODUCT APPLICATION:** Pour the mixed material into the application tray. Apply at the rate of 600 square feet per gallon in a uniform manner with a 10mm nap roller. For a uniform appearance, it is critical that the material is not applied thicker than this application rate. Dip the roller in the coating and roll out excess material in the roller tray prior to the actual application to the substrate. Overlap subsequent passes being sure no excess material is applied when overlapping. Make sure the floor has just enough material to cover evenly in a thin application. Finally, re-roll the area in the opposite direction of the first pass applications to level and even the application. The final re-rolling for the entire floor should be in the same direction. **Remix the material in the application tray to maintain a uniform mix throughout the application process. If the appearance is not satisfactory, re-roll until the area is uniform in appearance. It is almost impossible to over-roll this material. The last step in the application process (wearing spiked shoes) is to pull the roller tool across the entire slab in one direction without applying any pressure and repeating this process by overlapping until the entire slab has been re-rolled.** This will help blend in any roller and overlap marks. Maintain temperatures and humidity within the recommended ranges during the application and during the curing process. Make sure the substrate has a suitable epoxy primer that has been de-glossed (see surface preparation above). It is best to maintain a wet edge to avoid roller marks. Direct sunlight or high temperatures may cause visible roller marking during application. Too thick of an application may result in solvent entrapment and product failure. The surface must be dry before the application of this product.
- 5) **RECOAT OR TOP COATING: Multiple coats of this product are not recommended without thoroughly evaluating the adhesion in conjunction with a thorough deglossing.** If you opt to apply multiple coats of this product, a test area must be applied to test adhesion before attempting to apply multiple coats over the entire job. If you opt to recoat this product, you must first be sure that all of the solvents have evaporated from the coating during the curing process and properly de-gloss and roughen the surface (see surface preparation above). However, it is best to test the coating before recoating or top coating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. Always remember that colder temperatures will require more cure time for the product. Before recoating or top coating, verify the coating to insure no contaminants exist. If contaminants are present on a previous coat, remove with a standard detergent cleaner and allow to thoroughly dry. Although not recommended, when recoating this product with subsequent coats, it is advisable to apply the recoat before 24-48 hours pass only after proper surface preparation and adhesion testing has been completed.
- 6) **CLEANUP:** Use ketone solvents or other suitable cleaning solvent
- 7) **FLOOR CLEANING:** Caution! Test each cleaner in a small area. 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.
- 9) **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."