

TECHNICAL DATA SHEET HIGH PERFORMANCE POLYESTER/URETHANE COATING

PRODUCT DESCRIPTION:

MF322 is a two components polyester/aliphatic polyurethane coating that exhibits excellent characteristics for abrasion resistance, chemical resistance, flexibility, weathering, and UV stability. This product meets the VOC requirements for the newly enacted VOC laws as an industrial maintenance coating.

RECOMMENDED FOR:

MF322 is recommended for auto service centers, warehouses, computer rooms, laboratories, aircraft hangers, cafeterias, exterior tanks, indoor or outdoor service and chemical exposures areas.

SOLIDS BY WEIGHT:

Mixed= 73% (colours); 64% (clear) (+/- 2%)

SOLIDS BY VOLUME:

Mixed= 70% (colours); 60% (clear) (+/- 2%)

VOLATILE ORGANIC COMPOUND:

VOC content is less than 335 g/l (mixed)

STANDARD COLOURS:

Clear – White – Super hide white – Black – Medium grey – Light yellow
– Tile red – Beige – Blue – Light blue

SAFETY COLOURS:

Safety yellow

RECOMMENDED FILM THICKNESS:

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

COVERAGE PER GALLON:

320 to 500 square feet/gallon @ 3-5 mils wet thickness

PACKAGING:

3 gallon kit = 2 gallons part A (weight varies by colour) and 1 gallon part B (8.5 lbs) (weights and volumes are approximate)

MIX RATIO:

2 parts A to 1-part B by volume (approximately)

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

High-gloss (>70 at 60 degrees @ glossmeter)

IMPACT RESISTANCE:

Gardner Impact, direct & reverse=160 in. lb. (passed)

ABRASION RESISTANCE:

Taber abrasor CS-17 calibre wheel with 1000-gram total load and 500 cycles= 22.0 mg loss

ADHESION:

350 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed= 200-600 cps (typical)

HARDNESS:

Shore D= 62

FLEXIBILITY:

No cracks on a 3mm mandrel

TDG CLASSIFICATIONS:

Part A "Not regulated"
Part B "LIMITED QUANTITIES"

DRYING TIMES: (21°C / 70°F) @ 50% RH

Pot life – 1 ½ gal..... 2-4 hours
Tack free (dry touch) 3-5 hours
Recoat or topcoat..... 5-9 hours
Light foot traffic... 14-24 hours
Full cure (heavy traffic) 3-5 days

APPLICATION TEMPERATURE:

7°C – 32°C (45°F – 90°F) with relative humidity below 90%

CHEMICAL RESISTANCE:

<u>REAGENT</u>	<u>RATING</u>
5% Acetic acid	D
Xylene	D
Toluene	D
1,1,1 trichloroethane	C
Mek	C
Methyl alcohol	C
Gasoline	D
10% sodium hydroxide	E
50% sodium hydroxide	E
10% sulfuric acid	E
10% hydrochloric acid	E
20% nitric acid	C
Ethylene glycol	E

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**

TOPCOAT:

Not recommended

LIMITATIONS:

- Colours or clarity for clear may be affected by high humidity, low temperatures, or chemical exposure.
- 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.
- Light or bright colours (white, safety yellow, etc.) may require multiple coats or a suitable colour coordinated primer to achieve a satisfactory hide.
- Colours may vary from batch to batch, therefore, always use product from the same batch for an entire job.
- Tire contact may cause discoloration or staining.

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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).
- 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 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) **PRODUCT MIXING:** 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. Avoid whipping air into the coating. Improper mixing may result in product failure.
- 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. Properly prime the substrate. **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 product failure. Exposure to certain types of lighting such as sodium vapor lights may cause the product to discolor. Applications with relative humidity higher than 90% and/or poor air circulation may cause improper cure and surface tackiness.**
- 5) **RECOAT OR TOP COATING:** Multiple coats of this product are acceptable. 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. The information on the front side are reliable guidelines to follow. 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. If no impression is created, then the recoat can be started. Always remember that colder temperatures will require a longer cure time of the product before recoating can commence. Before recoating or top coating, verify the coating to insure no contaminants exist. If a blush or contaminants are present on a previous coat, remove with a standard detergent cleaner. When recoating this product with subsequent coats of the urethane, it is advisable to apply the recoat before 24 hours passes. Also, it is advisable to degloss the previous coat to insure a trouble free bond.
- 6) **CLEANUP:** Use Xylene
- 7) **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.
- 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.
- 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.