

TECHNICAL DATA SHEET

POLYASPARTIC URETHANE COATING

PRODUCT DESCRIPTION:

MF344 is a solvent based two components 85% solids polyaspartic aliphatic urethane clear coating. **MF344** has excellent chemical resistance, hardness, abrasion resistance, UV stability and has an excellent clear gardner colour. However, the outstanding feature of this product is its exceptionally quick tack free time of around 1-2 hours for foot traffic.

RECOMMENDED FOR:

MF344 is recommended for areas where a thin/medium build clear coat is desired over a broadcast system and installation downtime is very limited. This product is suitable as a thin/medium build coating only.

SOLIDS BY WEIGHT:

85% (+/- 3%)

SOLIDS BY VOLUME:

81% (+/-3%)

VOLATILE ORGANIC COMPOUND:

Less than 159 grams per liter

STANDARD COLOURS:

Clear

Colour packs 473ml: Off white, white, tan, beige, light grey, medium grey, dark grey, black.

RECOMMENDED FILM THICKNESS:

2-8 mils wet.

COVERAGE PER GALLON:

200-800 square feet per gallon.

PACKAGING INFORMATION:

3-gallon kits (net approximately)

MIX RATIO:

Two parts A to one-part B by volume (volumes are approximate)

SHELF LIFE:

6 months in unopened containers

FINISH CHARACTERISTICS:

Gloss (>70 at 60 degrees

COMPRESSIVE STRENGTH:

12,000 psi @ ASTM D695

TENSILE STRENGTH:

3,900 psi @ ASTM D638

ULTIMATE ELONGATION:

2.4%

HARDNESS:

Shore D= 80

ABRASION RESISTANCE:

Taber abraser CS-17 calibre wheel with 1000-gram total load and 500 cycles= 21 mg loss

VISCOSITY:

<1000 centipoise typical

TDG CLASSIFICATIONS:

Part A "LIMITED QUANTITY"

Part B "Not Regulated"

CURE SCHEDULE: (21°C / 70°F) @ 50% RH

Pot life – (150 gram mass).....30-60 minutes

(actual usable working time is approximately 15-20 minutes)

Tack free (dry to touch).....1-3 hours

Recoat or topcoat.....2-4 hours

Light foot traffic.....3-5 hours

Full cure (heavy traffic)... ..24-48 hours

APPLICATION TEMPERATURE:

10°C – 32°C (50°F – 90°F) with relative humidity below 85%

CHEMICAL RESISTANCE:

<u>REAGENT</u>	<u>RATING</u>
Xylene	C
1,1,1 trichloroethane	B
MEK	A
Methanol	B
Ethyl alcohol	B
Skydrol	C
50% sodium hydroxide	E
10% sulfuric acid	C
10% HCl (aq)	C
5% acetic acid	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:

Recommended; **MF015 & MF707**. Although the **MF344** can be applied directly to concrete, a test patch should be applied in order to ensure that desired coverage and adhesion is achieved.

TOPCOAT:

Not recommended

LIMITATIONS:

- Due to the quick cure rate and dry time, it is suggested that the user perform a test and thoroughly evaluate the product before using.
- Colour stability may be affected by environmental conditions like high humidity/chemical exposure. Exposure to some types of lighting such as sodium vapor lights may cause discolorations.
- Test Data based on neat resin.
- Clarity of colour may vary from batch to batch.
- Substrate temperature must be 3°C/5°F above dew point.
- Too thick of an application may result in surface imperfections, bubble generation or product failure.
- Always apply a test patch in order to determine product suitability and adhesion performance for your proposed application method and procedures.
- All new concrete must be cured for at least 30 days prior to application.
- Do not expose this product to water until fully cured.

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 temperature or temperature fluctuations may cause crystallization.
- 2) **SURFACE PREPARATION:** The most suitable surface preparation would be a 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 begin 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 or MF707** should be used before applying this product. However, whether a primer is used or not, it is advisable to apply a test patch prior to using this product in order to determine if the adhesion characteristics are suitable for the service environment.
- 4) **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.
- 5) **PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. This product is only intended for use as a thin build topcoat. **It should be pointed out that relative humidity can have a dramatic influence on the curing characteristics. The product will dry quicker and have less working time when the relative humidity is higher, while a lower relative humidity will lengthen the dry time and working time.**
- 6) **RECOAT OR TOP COATING:** This material can be applied in multiple coats. If you opt to recoat 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 can commence.
- 7) **CLEANUP:** Use 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.