

Florothane MC/HT

Aliphatic Moisture Cure Urethane High Gloss and Satin

Product Description: Florothane MC/HT is a unique high performance urethane topcoat system that can be conveniently installed to furnish a variety of finishes, including high gloss clear or pigmented and satin clear or pigmented. It offers excellent UV stability and colorfastness, exceptional durability and odor-free installation. Clear or field-tinted, Florothane MC/HT provides superior abrasion, chemical and solvent resistance with superior wear properties. Whether applied as a high gloss or satin finish, slip-resistance may be customized with additional aggregate. Durable and easy to maintain, Florothane MC/HT is an ideal topcoat choice for many other Florock flooring systems.

Typical Uses, Applications: Ideally suited for commercial, industrial and institutional applications, such as:

- Aircraft hangar, vehicle maintenance areas
- Auto, truck and motorcycle dealerships
- Retail, showrooms, office settings
- Loading docks, manufacturing, packaging
- Education, fire stations, public spaces
- Heavy traffic aiseways
- Hospital and office settings

Product Advantages:

- May be installed as high gloss or satin
- Betadine®-stain resistant for short exposure
- Resistant to Skydrol®, jet fuels and other vehicle maintenance fluids
- Exceptional abrasion resistance and durability
- No odor, high solids
- Color stable, non-ambering
- Antimicrobial option with FloroSeptic
- Meets all current VOC regulations for industrial maintenance coatings in North America
- USDA, FDA, EPA and OSHA compliant
- Field tintable with FloroTint Colorants

Cured Physical Properties			
Description	Test Method	Gloss A+B	Satin A+B+C
Abrasion Resistance, Taber Abrader CS-17 Wheel, 1000 gm load, 1000 cycles	ASTM D4060	19 mg. loss	18 mg. loss
Gloss, Clear, 60 Degree	ASTM E97	90	25 - 35
Gloss, Pigmented, 60 Degree	ASTM E97	90	45 - 55
Koenig Hardness, 3 Mil Film	ASTM D4366	171	171
Coefficient of Friction James Friction Tester	ASTM D2047	> 0.61	> 0.63
Tensile Strength	ASTM D2370	6,300 psi	6,300 psi
Tensile Elongation	ASTM D2370	6%	6%
Dry Film Thickness	Per Coat	2.9 mils	2.9 mils

Standard Packaging:

Resin - 4.1 Gallon Florothane MC/HT Resin-Only Base Kit

Optional Satin High Traffic Powder - 11.45 Pound Bag of MC/HT High Traffic Powder

Optional FloroTint Colorant - Cases of 8-26.2 ounce-filled quart cans

Mini Packaging:

Resin Mini - Clear 0.75 Ounce Florothane MC/HT Resin-Only Base Kit, includes 9.2 Ounces of FloroTint upon request

Optional Satin High Traffic Powder Mini: 2.1 Pound Bag of MC/HT High Traffic Powder

Roller: For Satin Topcoat, use ONLY a normal capacity, polyester fiber roller cover with a 3/8" nap, available at most hardware stores.

Storage: All containers should be stored at 40° F to 95° F and be kept tightly sealed and out of direct sunlight.

System: One or two coats applied over primer or other approved Florock system.

Note: Sanding between coats is imperative.

Coverage: 500 SF per gallon over smooth floor. For other than smooth surfaces, consult your Florock Representative.

HIGH GLOSS Typical Mix Sizes:

Clear - 4.1 Gal Florothane MC Base Kit

Pigmented - 4.5 Gallons, consisting of a 4.1 Gallon Florothane MC/HT Base Kit, plus 2 cans of FloroTint

SATIN Typical Mix Sizes:

Clear - 4.5 Gallons, consisting of a 4.1 Gallon Florothane MC Base Kit, plus 11.45 Pound Bag MC/HT Satin High Traffic Powder

Pigmented - 4.9 Gallons, consisting of a 4.1 Gallon Florothane MC/HT Base Kit, plus 11.45 Pound Bag MC/HT Satin High Traffic Powder and 2 cans of FloroTint

Surface Preparation: New concrete must have a 28 day cure, and preferably a broom swept finish, prior to coating. In the case of older concrete flooring, remove all surface oils, paint, dust and debris. Prior to coating, make sure the surface is clean, passes the water drop test and that all surface defects have been repaired. Moisture Vapor Transmission (MVT) Testing is always strongly recommended – see FloroProof data sheet for details.

Application Over Prepared Concrete:

1. Primer - Once surface preparation is complete, apply the appropriate Florock Floropoxy Primer to the concrete floor. In a clean, dry container, blend the components at the proper ratios. Mix only the amount that can be applied during the working time. Mix thoroughly for 3-5 minutes using a low speed

mechanical mixer. Pour onto floor and, using a 1/8" V notched-squeegee, apply primer at the recommended rate; back roll with a 3/8" nap roller immediately after spreading.

Note: If the topcoat is to be pigmented, then the primer must also be pigmented to the same color.

Note: The cure time will vary with site conditions.

Note: Florothane MC/HT should not be applied when floor temperature is above 90° F or below 55° F, or when within 5° F of the dew point.

HIGH GLOSS Topcoat -

2a. For a clear high gloss coating, combine Part A and Part B. For a pigmented high gloss coating, add 2 cans of Florock FloroTint into the mixture of Parts A and B. Mix Parts A and B (and FloroTint, if field pigmented) using a Jiffy mixer blade with slow speed drill.

3a. Apply only one coat at 500 SF per gallon with a 3/8" nap roller out of a roller pan. It is important to take great care not to apply this coating above or below the rate of 500 SF per gallon. Excess material could result in blisters; insufficient material could result in an uneven appearance. For additional slip-resistance, consult Florock Rep regarding aggregate options. Allow coating to cure for 24 hours. If a second coat of Florothane MC/HT is to be applied, lightly sand the first coat of Florothane MC with 60-80 grit sandpaper. Sweep or vacuum clean and wipe with Xylene to ensure good adhesion of the second coat.

SATIN Topcoat -

2b. For a clear satin coating, combine Part A and Part B. For a pigmented satin coating, add 2 cans of Florock FloroTint into the mixture of Parts A and B. Mix Parts A and B (and FloroTint, if field pigmented) using a Jiffy mixer blade with slow speed drill. **After 30-60 seconds of mixing the liquids, slowly add the MC/HT High Traffic Powder and continue mixing until a total of 3 minutes of mixing has been achieved.**

Florothane MC/HT Aliphatic Moisture Cure Urethane High Gloss and Satin

Note: For Satin Topcoat, DO NOT USE a high capacity, cotton blend fiber roller (such as Wooster's "Prodoo-z"). DO USE a normal capacity, polyester fiber roller cover with a 3/8" nap, available at most hardware stores. Contact your Florock Representative for more details.

3b. Apply only one coat at 500 SF per gallon with a 3/8" nap polyester fiber, normal capacity roller. It is important to take great care not to apply this coating above or below the rate of 500 SF per gallon. Excess material could result in blisters; insufficient material could result in an uneven appearance. For additional slip-resistance, consult Florock Rep regarding aggregate options. Allow coating to cure for 24 hours. **If a second coat of Florothane MC/HT is to be applied, lightly sand the first coat of Florothane MC/HT with 60-80 grit sandpaper. Sweep or vacuum clean and wipe with Xylene to ensure good adhesion of the second coat.**

Note: It is recommended that the entire 11.45 pound bag of MC/HT High Traffic Powder be used for each resin kit. However, if only a partial amount of MC/HT High Traffic Powder is to be added, measure and record the powder by WEIGHT, in order to correctly reproduce each batch.

Note: The agitation of the roller should be sufficient to keep the MC/HT High Traffic Powder in suspension. If in doubt, a paint stick can be used to stir the product every ten minutes to ensure suspension.

Note: If the mixture is allowed to set in the bucket for longer than 15 minutes, remix for 30-60 seconds to ensure proper suspension of the MC/HT High Traffic Powder.

Application Over Existing Coatings:

1. Examine the existing coating to ensure that it is well-bonded to the concrete. Any loose coating must be completely removed. Feather any edges.

Liquid Physical Properties		
Property	Test Method	Florothane MC/HT Resin Only
Viscosity, A/ B	ASTM D2196	1200/ 35 cps
Flash Point	ASTM D3278	230° F
N.V.W., A+B	ASTM D2369	91%
VOC, lbs/gal	ASTM D3960	0.07 lbs/ gal
VOC, grams/ltr	ASTM D3960	8.4 gpl
Blended Components		
Recommended Spread Rate	500 SF/ gal	
Floor and Air Temp. Limits	55° F - 90° F	
Set to Touch, 70° F	12 hours	
Minimum Recoat (Foot Traffic)	12 - 16 hours	
Maximum Recoat	24 hours	

2. Clean the entire floor thoroughly with detergent cleaner; the surface must be free of all dirt, oils, or other contaminants.

3. After the floor has completely dried, sand the existing coating until a powdery residue is evident and all gloss is removed. Sweep or vacuum clean, and wipe with Xylene to help ensure good adhesion of the new system. Any bare concrete should be mechanically prepared and primed with the appropriate Florock Floropoxy primer.

Maintenance: Sweep away dust and debris with a broom. Clean on a regular basis with a surfactant-type mild detergent. Florock floors never need waxing.

Please read Material Safety Data before using product.

DISCLAIMER: All preceding statements and recommendations are based on experience we believe to be reliable. The use or application of these products being beyond the control of the Seller or Manufacturer, neither Seller nor Manufacturer make any Warranty expressed or implied, as to results or hazard from its use. The suitability, risk and liability of a product for an intended use shall be solely up to the User.

Chemical Resistance - Clear MC/HT Resin		
Reagent	1 Hour	24 Hours
Hydrochloric Acid 10%	E	E
Hydrochloric Acid 30%	E	E
Nitric Acid 10%	E	E
Phosphoric Acid 50%	G	G-S
Sulfuric Acid 25%	E	E
Acetic Acid 10%	E	E
Citric Acid 10%	E	E
Oleic Acid	E	E
Ammonia Hydroxide 10%	E	E
Ethylene Glycol (Antifreeze)	E	E
Isopropyl Alcohol	G	G
Methanol	E	E
D-Limonene	E	E
JP-4 Jet Fuel	E	E
Gasoline	E	E
Mineral Spirit	E	E
Xylene	G	G
Methylene Chloride	P	P
MEK	E	E
Betadine®	E	E-S
Ammonium Nitrate 20%	E	E
Brake Fluid	E	E
Bleach	E	E
Motor Oil	E	E
Skydrol® 500B	E	E
Skydrol® LD4	E	E
Sodium Chloride 20%	E	E
Tide Laundry Soap 1%	E	E
Trisodium Phosphate 10%	E	E

System cured 2 weeks prior to testing. Testing results are based on 1 hour and 24 hour exposures with 2 hour recovery.

*E – Excellent. No change in pencil hardness
 G – Good. 1-2 units change in pencil hardness
 F – Fair. 3 units change in pencil hardness
 P – Poor. 4 or more unites change in pencil hardness
 S – Stains*