

# US Coating Solutions.

## High Performance, Sustainable Coatings Technology

### Flex-Clear Matte

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#### Product Technical Data Sheet

**PRODUCT PROFILE:** Flex-Clear Matte is a premium, two-component, acrylic, high performance, and non-yellowing polyurethane coatings. It is two separate but essentially equal products, besides gloss levels. Both products have performance characteristics more typical of solvent-based, two-component urethanes and Flex-Clear Matte has the added advantage of VOCs less than 50 grams/L; thereby, meeting the criteria of the U S Green Building Council's LEED Credit, EQ-4.2, Low-Emitting Materials, Paints and Coatings.

**UNIQUE CHARACTERISTICS:** Flex-Clear Matte is chemical and acid resistant coatings, and provides excellent mar and abrasion resistance for demanding applications. It has essentially no odor thus making them an excellent choice for use in areas and during business operations when/where solvent and higher VOC water-borne urethanes would not be considered.

**TYPICAL APPLICATIONS:** Flex-Clear Matte is for floors and walls of Retail Stores, Schools, Hospitals, Prisons, as well as other facilities with high degrees of institutional and industrial maintenance requirements. Flex-Clear Matte is an excellent coating for surfaces needing a higher level of protection.

#### PHYSICAL CHARACTERISTICS

GLOSS @ 60 ANGLE	Up to 20	WEIGHT SOLIDS	43% ± 3% catalyzed & reduced
WEIGHT GALLON	8.8 lbs./gallon kit	VOLUME SOLIDS	40% ± 3% catalyzed & reduced
	Combined Parts A & B	FREEZE THAW STABILITY	Not Determined
CATALYZE RATIO	As supplied in premeasured kit	FLASH POINT	Not Determined
		VOCs	<50 g/l

#### APPLICATION PROCEDURE

APPLY WITH REDUCTION	Microfiber roller, brush or spray. Test patch all surfaces prior to full application. Zero to up 20 ounces of clean tap water depending upon application
MIXING PROCEDURE	Pour Part A and Part B together. Hand-mix the two parts with paint stick for 2 minutes. The solution will make an obvious transition in appearance when fully dispersed, along with a gain in viscosity. No further sweat-in is required. If desired, one can add up to a quart of water to the combined Part A and Part B after the two-minute mixing time.
APPLICATION VISCOSITY	65 - 75 KU Catalyzed and reduced Up to 70% Relative Humidity
APPLICATION CONDITIONS	50° - 85° F Air or Surface Temperature

RECOMMENDED FILM THICKNESS	Wet: 2-4 mils Dry: 1-2 mils
THEANDETICAL COVERAGE	Approximately 650 sq. ft. per gallon @ 1 mil dry film thickness
ACTUAL SPREAD RATE	401-535 square feet per gallon per coat
POT LIFE	60 minutes (for best results use within 30 minutes)
RECOMMENDED COATS	One or two, depending on performance requirements and substrate profile (lightly abrade between coats)
CLEAN - UP	Water and you may use a mixture of water and a small amount of acetone
AIR DRY SCHEDULE @ 75°F, 50% HUMIDITY	Recoat/Handle: 2-4 hours Full Cure: 7 days @ 75°F, 50% relative humidity

#### PERFORMANCE CHARACTERISTICS

(Results based on Independent Lab. Testing)

ADHESION (ASTM D3359)	Avg. results 5B	FLEXIBILITY (ASTM D522)	Not determined
HUMIDITY (ASTM D2247)	Not determined	ELONGATION, % (ASTM D522)	Not determined
ABRASION (ASTM D4060)	33 mg loss	XENON ARC WEATHERING (G155) @ 1000 HRS	Not determined
HARDNESS (ASTM D3363)	2H/H	MEK - DOUBLE RUBS	>200
IMPACT RESISTANCE (ASTM D2794)	Not determined		

## ***SURFACE PREPARATION***

Properly clean the surface before applying Flex-Clear Matte. Remove all existing floor finishes by using a scrubbing machine and the appropriate stripper. Repeat as necessary to achieve satisfactory results. Rinse thoroughly with water to a neutral pH.

**Previously Painted Surfaces: Ideally, remove any previous paint and coating.** If not, properly clean the surface of all dust, dirt, grease and foreign matter and abrade the surface if necessary to achieve at least a 200 grit profile or larger. Whenever uncertain of adhesion and the surface, apply a test patch and wait three days and perform a cross hatch adhesion test with packing tape to ensure proper adhesion and also to ensure there will not be any delaminating of the previous coating from the substrate. If proper adhesion is not achieved with the Flex-Clear Matte to the previous coating consult US Coating Solutions for a possible primer coat. To insure optimum performance, remove the previous coating to the bare substrate then apply the proper coating system.

## ***APPLICATION***

**Application Conditions:** Temperature of the air, substrate, and material is recommended to be between 50°F and 85°F. And at least 5° above the dew point. Relative humidity should not exceed 70%.

### **Equipment:**

**Brush:** Nylon and Polyester

**Roller:** Microfiber roller. Ideal for concrete, ceramic (with Adhesion Pro).

**Spraying:** The coatings can be sprayed. Contact US Coating Solutions for further details.

**Mixing Instructions:** Stirring the components thoroughly, mix the pre-measured Part A with Part B together. Mix thoroughly for two-minutes, ensuring that Part A & B are blended together. Allow the product to sit for two additional minutes and then depending on how thin you need the product, you can reduce with up to 20 ounces of clean tap water.

**Note:** Do not re-seal the mixed product. Do not reduce the catalyzed product with water after 15 minutes. Do not mix previously catalyzed material with new material. Do not leave the mixed product in the can but immediately pour the contents into a larger container for pot life purposes.

### **Pot life:**

60 minutes at 72F but for best results use within 30-minutes

### **Clean Up:**

Pure water and water with a small amount of acetone.

## ***SURFACES/In-Use/Recoat Time***

**Surfaces:** Steel, aluminum, concrete, wood, ceramic with Adhesion Plus.

**In-Use/Recoat Time:** Traffic should not be allowed onto the floor until typically 6-8 hours after application and recoat should not be applied until the coating surface is tack free.

**Personal Protection:** No special clothing or respirator is required. Due to the products total water-based formulation, the hazard of flammability is removed. Gloves and eyeglasses should be worn.

### **Limitations:**

- Flex-Clear Matte should be tested on all substrates before application for adhesion compatibility and appropriate application method.
- It should not be applied in humidity above 70%.
- Flex-Clear Matte should not be applied when the ambient temperature is below 50°F and above 85°F.
- Certain porous surfaces may require a sealer and block filler to allow the it to create a desired application and maintain the integrity of the coating. Test patches should be applied before the final application.
- Do not mix previously catalyzed Flex-Clear Matte with a fresh batch of product.
- Flex-Clear Matte are best applied to some types of surfaces with a pad versus a brush or roller.
- **Important:** Excessive film building may cause blistering and cause the film to be white and affect the final appearance.