

F.S.P.M.A. PAINT SPECIFICATION
DIVISION 9 - FINISHES
SECTION 09910 EXTERIOR PAINT
FOR GENERAL EDUCATION FACILITIES USE
MP-39.1

LATEX-BASE, LOW ODOR, LOW VOC EGGSHELL, INTERIOR WHITE AND TINTS

I. SCOPE, USE AND CLASSIFICATION

- A. **SCOPE:** This specification covers an eggshell, ready-mixed, latex base paint for interior walls and ceilings.
- B. **USE:** Containers shall have labels, meeting ANSI standards and giving adequate use instructions, firmly secured to each container. Labels shall meet all federal regulation requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard in CFR 1910.1200.
- C. **CLASSIFICATION:** Paint of the following types is included:
 - 1. Type I. White
 - 2. Type II. Tint base paint or ready-mixed colors.

II. REQUIREMENTS

- A. **MATERIALS.** The paint shall be formulated from materials as specified herein. Materials not specified shall be selected by the supplier and shall be subject to all the provisions of this specification. The paint shall be free from material which is known to be toxic to personnel under normal conditions of use.
 - 1. **PIGMENT.** The pigments, including extenders, shall have a good commercial lightfastness and alkali resistance. The prime pigments shall consist of titanium dioxide conforming to ASTM D 476, types III or IV. Tinting pigments may be used when necessary to match the colors required, provided these additional pigments have good color permanence.
 - 2. **VEHICLE.** The vehicle shall be of the latex type i.e., a stable aqueous dispersion of synthetic resin particles prepared by emulsion polymerization. Small additions (not to exceed 10 percent) of the emulsified modifying resins needed to meet performance requirements of this specification may be made provided the finished product meets all requirements specified herein.

3. RESTRICTED METALS. The paint shall comply with the latest requirements of the Federal, Florida State, City or Local Governments for maximum allowable restricted metals content.
 4. VOC COMPLIANCE. The paint shall comply with the latest requirements of the Federal, Florida State, City or Local Governments for the maximum allowable VOC content at the time of purchase. Such compliance shall be stated on the MSDS and container clearly identifying the product.
- B. QUANTITATIVE REQUIREMENTS. The paint shall conform to the quantitative requirements as specified in Table I.

TABLE I. QUANTITATIVE REQUIREMENTS

Characteristic	Tolerance Requirements	
	Minimum	Maximum
1. Krebs-Stormer Viscosity, K.U.	90 (-5)	100 (+5)
2. Non-volatile vehicle, % by wt. of primer.	45	-
3. Drying time: To Touch, hours.	-	1
4. Directional reflectance, 45-0 degree.		
a. Type I, white only.	85(-1)	-
b. Type II, tint-base white.	90(-1)	-
5. Opacity, contrast ratio when applied at 450 sq. ft/gallon		
a. Dry:		
- Type I, white only.	0.95	-
- Type II, tint-base white.	0.95	-
b. Rewetted:		
- Type I, white only.	0.93	-
- Type II, tint-base white.	0.93	-
6. 85 ⁰ specular gloss	10 (-2)	25 (+2)
7. Fineness of grind, N.S.	3	-
8. Nonvolatile matter, % by volume of paint*.	39	-

** In order to confirm compliance with this requirement(s) the vendor shall submit either a formal report from an independent laboratory or a confidential, notarized, legally-binding manufacturer's report indicating the method used and the laboratory results obtained for the specific brand submitted for certification.*

C. QUALITATIVE REQUIREMENTS:

1. COLOR. The color of the paint specified in the contract or purchase order shall match that of the standard color chip. If a color other than white is required, the color shall match that of the standard color chip submitted by the purchaser with the bid.
2. STORAGE STABILITY IN A PARTIALLY FULL CONTAINER. The paint shall show no skinning after 48 hours when tested as specified in III.D. After an additional 14 days at 120 °F, the same sample shall show no skinning, livering, curdling, hard caking, or gummy sediment. It shall mix readily to a homogenous state and the viscosity change shall not be greater than 10 K.U.
3. STORAGE STABILITY IN UNOPENED CONTAINER. All containers shall have sufficient preservatives to prevent spoilage for one year.
4. APPEARANCE OF DRIED PAINT. When applied by brushing or rolling, the paint shall dry to a smooth, uniform finish, free from craters and other defects caused by bubble retention. There shall be no "shiners", no flashing, no streaking or conspicuous laps, nor any objectionable brush marks.
5. ODOR. The odor shall not be putrid during or after application. Must be less than the typical odor associated with latex paint. Suitable for use in an occupied area.
6. SCRUBBABILITY. When tested as specified in III.C., the paint film shall not be worn through to the test panel after 1,000 cycles (2,000 separate strokes) of the sponge.
7. ALKALI RESISTANCE. When tested as specified in III.B., the paint film shall show no change in the hue and not more than very slight changes on lightness and gloss.
8. COMPATIBILITY (For Type II paint only.) When tested as specified in IV.C.1., there shall be no color streaks or pigment flotation while brushing. The dried film of the rubbed-up area shall show no difference from the nonrubbed-up area.
9. MATERIAL SAFETY DATA SHEET (MSDS). An MSDS clearly identifying this product, filled out completely according to the Florida Right-to-Know Law, Chapter 442, Florida Statutes, MUST BE submitted with each sample submitted for certification.
10. CONDITION IN CONTAINER. The paint, when tested as specified in Table II, shall be free from grit, seeds, skins, lumps, and livering, and shall show no more pigment settling or caking than can be reincorporated into a smooth homogenous state. In a freshly opened container, there shall be no rusting of the container.

III. TEST PROCEDURES FOR LABORATORY ANALYSIS

The failure of any test in this section shall constitute a failure of the product to conform to the specification. Unless otherwise noted, all test methods cited are the latest published revisions.

- A. PHYSICAL AND CHEMICAL PROPERTIES. The following tests shall be conducted in accordance with the methods specified in Table II.

TABLE II. TEST AND METHODS

Test	Methods
1. Condition in container.	FTM Std. 141C, Meth. 3011.2
2. Consistency, Krebs-Stormer.	ASTM D 562
3. Nonvolatile Vehicle, % by wt. of primer.	FTM. Std.141C, Meth. 4053.1
4. Drying time: dry hard*	ASTM D 1640
5. Daylight directional reflectance**.	ASTM E 97
6. Opacity***.	ASTM D 2805
7. 85 degree Specular gloss.	ASTM D 523
8. Fineness of grind.	ASTM D 1210
9. Nonvolatile matter (% by volume)	ASTM D 2697

* Apply a 3.0 mil wet film thickness of paint with a doctor blade.

** Apply a 6.0 mil wet film thickness of paint with a doctor blade.

*** For rewetted opacity: Apply a 1.5 mil wet film of water-white mineral oil (U.S.P. Liquid Petrolatum Heavy) by doctor blade over the dried films prepared for determining dry opacity. Allow to stand 10 minutes and redetermine the contrast ratio.

- B. ALKALI RESISTANCE. Using one of the drying time panels, air dry for 18 hours, min., then bake 3 hours at 105 degrees C. and cool for 1/2 hour. On each of three different undisturbed areas of the film, place 5 drops of a 0.5% solution of sodium hydroxide and cover with watch glasses. Allow 2 hours recovery. Examine the film for compliance with II.C.7.
- C. SCRUBBABILITY. Use ASTM D 2486 test method except that a synthetic sponge (cut to fit the holder), conforming to FED. Spec L-S-626, Type II, porosity B, is used in lieu of the nylon bristle brush; and 50 ml. of water is used instead of 5 ml. Check for compliance with II.C.6.
- D. STORAGE STABILITY IN PARTIALLY FULL CONTAINER. Determine skinning after 48 hours in accordance with Federal Test Method Standard No. 141C, Method 3021.1, except use a 3/4 filled pint, multiple friction top can. Then reseal and store for 14 days at 120 F. Check for compliance with II.C.2.

IV. METHODS OF SAMPLING, INSPECTION AND OTHER TESTS

- A. SAMPLING: At the option of the purchaser, representative samples shall be taken from deliveries made under this invitation and submitted for quality control testing. If the purchaser's sample fails, the manufacturer shall pay for the actual cost of testing. Failure of any sample so taken to comply with the specification requirements shall invalidate any purchase contract made under this invitation unless the manufacturer requests a repeat quality control test. This second sample shall be from the same batch. The manufacturer

shall pay for the second quality control test should the sample fail, and this invalidates any purchase contract made under this invalidates. If the second sample passes, the manufacturer is not responsible for paying the actual cost of the test, and results obtained from the second quality control test shall prevail.

B. INSPECTION: Physical inspection of package, condition, quantity, and labeling shall be made at point of delivery by the purchaser. MSDS shall be submitted with each shipment in accordance with the Florida Right-to-Know Law, Chapter 442, Florida Statutes, and shall be identical to the MSDS supplied for initial certification.

C. OTHER TESTS.

1. COMPATIBILITY (for Type II tint base paint only). In a beaker containing approximately 100 ml. of Type II paint, place 2.0 grams of tinting medium concentrate supplied by the manufacturer of the paint. Stir thoroughly until the tinting concentrate is evenly dispensed to a homogenous mixture. Allow the mixture to stand undisturbed for five minutes. On one clear plate glass panel prepared in accordance with Method 2021 of Fed. Test method Std. No. 141C, brush a coat of the mixture to approximately 1 mil dry film thickness and allow to dry at room temperature in a vertical position for 24 hours. While brushing, observe for streaks and pigment separation. On another panel with the same preparation, draw down (approximately) 2.0 mil wet film thickness of the mixture. While the paint is still wet, rub-up an area using the index finger in circular motion and continue for a minimum of 20 revolutions. Exert light pressure of the finger while rubbing so as not to rub off the film. Allow the paint film to dry at room temperature for 24 hours. Examine the dried film and compare the rubbed-up area against the non-rubbed-up area. A difference in color, gloss, and texture of the dried film between these areas constitutes incompatibility.

NOTE: TESTING TO MEET THIS SPECIFICATION DOES NOT INCLUDE AN IN-USE PERFORMANCE TEST. ALL EDUCATIONAL AGENCIES SHOULD CONSIDER AN IN-USE PERFORMANCE TEST BEFORE PURCHASING THIS PRODUCT.

ORIGINAL MP-39.0 - APPROVED October 22, 1996
REVISION MP-39.1 - EFFECTIVE September 16, 2008

PRESIDENT FLORIDA SCHOOL PLANT MANAGEMENT ASSOCIATION

CHAIR FSPMA PAINT SPECIFICATIONS COMMITTEE