

F.S.P.M.A. PAINT SPECIFICATION

DIVISION 9 - FINISHES SECTION 09920 INTERIOR

FOR GENERAL EDUCATION FACILITIES USE

MP- 28.4 **ACRYLIC-BASE, SEMI-GLOSS, EXTERIOR, WHITE AND TINTS**

I. SCOPE, USE AND CLASSIFICATION:

A. SCOPE. This specification covers a semi-gloss latex coating for use on wood siding, trim, unglazed brick and asbestos shingles, stucco, cement and cinder block.

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. The following types of paint are included.

Type I. White, pastel base, or ready-mixed colors with reflectance of 60 or above. Certification shall be for Type I only.

Type II. Other ready-mixed colors and factory-custom colors with reflectance less than 60.

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 prime pigment shall consist of Type III titanium dioxide and extender pigments having good commercial lightfastness and alkali resistance.

2. VEHICLE. The vehicle shall consist of 100% acrylic emulsion together with needed additives to insure a paint with good adhesion and exterior protection of the substrate.

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.

B. QUANTITATIVE REQUIREMENTS. The paint shall conform to the quantitative requirements as specified in Table I.

TABLE I. QUANTITATIVE REQUIREMENTS

CHARACTERISTICS	TOLERANCE REQUIREMENTS	
	MINIMUM	MAXIMUM
1. Titanium dioxide, % by wt. of paint, (Type III, 80% TiO ₂)	18.0	-
2. Total solids, % by wt. of paint:		
Type I	43 (-2)	-
Type II	42 (-2)	-
3. Pigment, % by wt. of paint:		
Type I	19 (-1)	-
Type II	17 (-1)	-
4. Weight per gallon of paint, lbs.:		
Type I	9.8	-
Type II	9.5	-
5. Viscosity, K.U.:		
Type I	84 (-3)	108 (+3)
Type II	86 (-3)	108 (+3)
6. Drying time: Set-to-touch, hours	-	2
7. Dry hard, hours	-	16
8. Daylight directional reflectance, (0.003 wet film): Type I only	85	-
9. Dry opacity, contrast ratio, (0.003 wet film): Type I only	0.96	-
10. Fineness of grind, N.S.	6	-
11. 60° specular gloss after 48 hrs. air dry*:		
Type I	25	60
Type II	25	60
12. Adhesion, psi	100	-
13. Nonvolatile matter, % by volume of paint**.	30	-

*Using 3 mil wet film thickness over plate glass backed with white paper.

**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. BRUSH PROPERTIES. The paint shall brush satisfactorily in all respects and shall dry to a smooth, semi-gloss, uniform film.

3. STORAGE STABILITY IN UNOPENED CONTAINER. All containers shall have sufficient preservatives to prevent spoilage for one year.

4. APPEARANCE OF DRIED PAINT. When tested as specified in IV.C.2., the paint shall dry to uniform, smooth appearance. The laps and brush marks shall not be conspicuous.

5. STORAGE STABILITY IN A PARTIALLY FULL CONTAINER. The paint shall show no skinning after 48 hours when tested as specified in III B. After an additional 14 days at 120F., 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.

6. ODOR. The color shall not be putrid during or after application.

7. 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 unrubbed-up area.

8. 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.

9. CONDITION IN CONTAINER. The paint, when tested as specified in Table II, shall be free from seeds, skins, lumps and livering, and shall show no more pigment settling or caking than can be re- incorporated into a smooth homogenous state. In a freshly opened container, there shall be no rusting of the container.

10. RECOATING PROPERTIES. When tested as specified in IV.C.2, when the painted surfaces are recoated, no film irregularity shall be observed after one hour of air drying under conditions. There shall be no picking or rolling up of the previous coat.

11. FUNGUS PROPERTIES. The paint shall contain no mercury, but shall contain fungicidal protection equivalent to 0.1% mercury as metal by total weight of paint. In order to confirm compliance with this requirement 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.

12. EXPOSURE TEST. When test panels prepared as in III.C. are exposed for one year in a South Florida environment, at 45 South, they shall achieve an overall rating of Good when graded for developments (i.e., cracking, blistering, mildewing, rusting, chalking, flaking, gloss retention, and other deteriorations) by a professional exposure testing company.

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.

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

Unless otherwise noted, all test methods cited are the latest published revisions.

TABLE II. TESTS AND METHODS

TEST	METHODS
Condition in container	FTM Std. 141C, Meth. 3011.2
Total solids, % by wt. of paint	ASTM D 2369
Weight per gallon	ASTM D 1475
Viscosity, Krebs-Stormer	ASTM D 562
Daylight directional reflectance	ASTM D 97
Fineness of grind	ASTM D 1210
Dry opacity	ASTM D 2805
Storage stability in partially full container	FTM Std. 141C, Meth. 3021.1
60 specular gloss	ASTM D 523
Skinning	FTM Std. 141C, Meth. 3021.1
Drying time: Set-to-touch	ASTM D 1640
Drying time: Dry hard	ASTM D 1640
Pigment, % by wt. of paint	ASTM D 3723
Analysis of titanium dioxide pigment	ASTM D 1394, Aluminum Reduction Method (Not currently tested by MDCPS)
Adhesion*	ASTM D 4541
Nonvolatile matter (% by volume)	ASTM D 2697

**ADHESION TEST - 100lbs./sq. in. minimum when tested on a film prepared according to MP-6.7, III. B.1, with two weeks of curing time. (Revised from ASTM D 3359 Method A & B per committee vote on 3/10/2000.)*

B. 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. Check for compliance with II.C.5.

C. EXPOSURE TEST. Three 6" x 12" panels shall be prepared using masonry panels over non-asbestos fibered board prepared as in ASTM D 1734 (modified to 6" x 12" size), and also three panels using smooth-sanded clear, yellow pine prepared as in ASTM D 358. Application shall be by brushing only, and shall follow the manufacturer's label instructions as closely as possible. Any primer or other product which is recommended by the manufacturer for use in preparing the surface for application of the test sample shall be furnished with the sample by the manufacturer. Check for compliance with II.C.12.

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 (when Type II tint base paint only. In a beaker containing approximately 100 ml of paint, place 2.0 grams of tinting medium concentrate supplied by the manufacturer of the paint. Stir thoroughly until the tinting concentrate is evenly dispersed 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 Federal Test Method Sty. 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 same preparation draw down (approx.) 2.0 mils 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 unrubbed-up area. A difference in color, gloss, and texture of the dried film between these areas constitutes incompatibility.

2. RECOATING PROPERTIES AND APPEARANCE. Conduct the test under standard laboratory air-drying conditions. Apply the paint with a 2-inch nylon brush to the 6" x 12" masonry panels over non-asbestos fibered cement board at a rate of approximately 100 square feet per gallon. Rinse the brush with solvent and remove the excess solvent by shaking the brush vigorously. Apply the paint by brushing across the panel using back-and-forth strokes using the tip of the brush. During application, note the working properties of the paint. After 1 hour of air-drying, apply the second coat in the manner as the first coat. During application, examine the paint film for picking and rolling up of the first coat. After 24 hours examine the dried film for smoothness and uniformity. Check for compliance with II.C.4 and II.C.9.

NOTE: TEST 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.

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