

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

DIVISION 9 - FINISHES

SECTION 09910 EXTERIOR PAINT FOR GENERAL EDUCATION FACILITIES USE

MP-38.4

EXTERIOR/INTERIOR, ALKALI RESISTANT-STAIN BLOCK UNIVERSAL PRIMER/SEALER, ACRYLIC-BASE

I. SCOPE, USE AND CLASSIFICATION

- A. SCOPE: This specification covers a quick drying water based acrylic undercoater for priming and sealing most surfaces including alkali. Formulated with exceptional adhesion, it adheres to glossy surfaces, wood, masonry, plaster, wall board, cement, brick, stucco, cement composition board (including alkali), galvanized metal, and surfaces with potential staining such as water, smoke, ink, markers, and tannins. It is not recommended for use on ferrous metals.
- 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 paint covered by this specification is a latex primer.

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. Pigmented with a durable exterior grade of titanium dioxide, and extender pigments to obtain good hiding and chemical resistance.
 - 2. VEHICLE. The vehicle shall consist of a latex emulsion with necessary additions of miscellaneous additives.
 - 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. Total solids, % by wt. of primer.	45 (-2)	-
2. Titanium dioxide, % by wt. of primer*.	9	-
3. Non-volatile vehicle, % by wt. of primer.	17	-
4. Krebs-Stormer Viscosity, K.U.	85 (-3)	108
5. Drying time:		
a. Set-to touch, hours.	-	1
b. Stain-resistance recoat, hours.	4	-
6. Nonvolatile matter, % by volume of paint*.	37	-

**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.
2. **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.
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.
6. **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.

7. 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.
8. ALKALI RESISTANCE. The paint film, tested as in IV.C.1., shall show no evidence of blistering, loss of adhesion, cracking or flaking.

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. Total Solids, % by wt. of primer.	ASTM D 2369
2. Consistency, Krebs-Stormer.	ASTM D 562
3. Storage stability in partially full container.	FTM Std. 141C, Meth. 3021.1
4. Adhesion test*	ASTM D 3359, Meth. A
5. Adhesion test**	ASTM D 3359, Meth. B
6. Condition in container.	FTM Std. 141C, Meth. 3011.2
7. Nonvolatile Vehicle, % by wt. of primer.	FTM. Std.141C, Meth. 4053.1
8. Drying time.	ASTM D 1640
9. Stain block	III.C.
10. Analysis of TiO ₂ pigment	ASTM D 1394, Aluminum Reduction Method (Not currently tested by M-DCPS)
11. Nonvolatile matter (% by volume)	ASTM D 2697

**ADHESION TEST - Method ASTM D 3359 A, X cut tape method, evaluated over aged gloss alkyd = 5A rating*

***ADHESION TEST - Method ASTM D 3359 B, Cross-cut method, evaluate over aged gloss alkyd = 5B rating*

- 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. Then reseal and store for 14 days at 120 F. Check for compliance with II.C.7.

C. **STAIN BLOCK TEST.** A 8" x 7" glass panel surface shall be uniformly coated with a paint brand certified under either MP-2 -'Acrylic-Base, Exterior, Flat, White and Tints' or MP-26 -'Acrylic-Base, Gloss Enamel, Direct-To-Metal, White and Tints' and allowed to dry for 1 week minimum before applying parallel lines of each of the markers/pencils/pens listed below:

1. Black -- Mark-A-Lot (broad tip) Dennison
2. Blue -- Mark-A-Lot (broad tip) Dennison
3. Green -- Mark-A-Lot (broad tip) Dennison
4. Red -- Mark-A-Lot (broad tip) Dennison
5. Brown -- Sharpie (Permanent Markers) Sanford
6. Blue -- Sharpie (Permanent Markers) Sanford
7. Green -- Sharpie (Permanent Markers) Sanford
8. Red -- Sharpie (Permanent Markers) Sanford
9. Black -- Precise Very Fine Pen Pilot
10. Blue -- Medium Ballpoint Papermate
11. Red -- Precise Very Fine Pilot
12. Pencil-- No. 2

The lines shall be allowed to dry a minimum of 4 hours before applying two 3 mil drawdowns (bird applicator) of the test primer over 75% of the stained area. The primer shall be allowed to dry for a minimum of 4 hours for each drawdown before applying two 3 mil drawdowns of a top coat which shall be a paint brand certified under MP-1 over at least 75% of the primed area. The wet finished panel will then show (1) lines with no coating, (2) lines with primer (MP-38) only, and (3) lines with primer (MP-38) and topcoat (MP-1) applications.

After allowing the top coat applications to dry for 24 hours, a visual comparative evaluation of which individual lines/stains are showing through the primer and top coat applications as well as of their intensity will be conducted using as a standard reference the resulting glass panel obtained for the INSL-X/Coronado Paints 'Grip & Seal Latex Stain Killer 116-11 (MT&E Lab # P2546) and the sample results shall be equal or better than those obtained for the standard reference material.

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. ALKALI RESISTANCE. Prepare concrete panels from a mix of 1 part of type 1 Portland cement and 1 part of graded Ottawa silica sand. Mix thoroughly with water to obtain a trowelling consistency and cast into panels measuring (76 X 76 X 13mm). The top surface of the panel to be coated shall be trowelled smooth. Allow the panel to cure for 1 week and immediately apply the paint at a spreading rate of 100 sq. ft. per gallon. Allow to cure for 24 hours. Immerse the test panels into water to such depths as to have the prepared surface about 4mm above the surface of the water for 28 days. Remove, let dry for 2 hours, and immediately examine for compliance with II.C.8.

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-38.0 - APPROVED October 22, 1996

REVISION MP-38.1 - Committee voted on 2/12/02 to change the stain block test from one 3 mil coat of test primer and top coat of MP 1.8 to two 3 mil coats of each.

REVISION MP-38.2 - Committee voted on 5/17/07 to change the FSPMA certification requirement of the base used for the stain block test from MP-1.8 to either MP-2.9 or MP-26.4.

REVISION MP-38.3 - APPROVED on July 25th, 2008.

REVISION MP-38.4 - APPROVED on September 16, 2008.

PRESIDENT FLORIDA SCHOOL PLANT MANAGEMENT ASSOCIATION

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