

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

DIVISION 9 - FINISHES SECTION 09910 EXTERIOR

FOR GENERAL EDUCATION FACILITIES USE

MP- 56.3 ELASTOMERIC ROOF PAINT

I. SCOPE, USE AND CLASSIFICATION:

- A. SCOPE. This specification covers a high-solids, 100% acrylic resin-based, water-borne, flexible roof coating designed to perform on horizontal masonry surfaces that may experience intermittent ponding water.
- B. USE. This product can be used over prepared stucco, as well as all normally used roofing materials such as properly prepared and primed metal. Containers shall have labels, meeting ANSI standard and giving adequate use instructions, firmly secure 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. There will be two types of coatings covered by this specification:

Type A - 'Regular Roof Coating': The product should be able to achieve an applied spread rate of 80-100 sqft per gallon when applied at 10 mils DFT (dry film thickness).

Type B - 'High-Build Roof Coating': The product should be able to achieve an applied spread rate of 50 sqft per gallon when applied at 20 mils DFT (dry film thickness) each coat. Two coats need to achieve a total DFT of 40 mils.

II. REQUIREMENTS:

- A. MATERIALS. The coating 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 coating shall be free from material which is known to be toxic to personnel under normal conditions of use.
1. VEHICLE. The vehicle shall consist of a 100% flexible acrylic copolymer resin with modifiers.
 2. RESTRICTED METALS. The coating shall comply with the latest requirements of the Federal, Florida State, City or Local Governments for maximum allowable restricted metals content.
 3. VOC COMPLIANCE. The coating 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 coating shall conform to the quantitative requirements as specified in Table I.

TABLE I. QUANTITATIVE REQUIREMENTS

CHARACTERISTICS	TOLERANCE REQUIREMENTS	
	MINIMUM	MAXIMUM
1. Total Solids (% by Weight)	50	-
2. Directional reflectance, 45- 0, White only (%).	88	-
3. Consistency (Viscosity,K.U.)	105	125
4. Drying Time (hr)		
a) to touch		2
b) to recoat	12	
5. Weight per gallon (lb)	11.0	12.0
6. Tensile strength @ room temp (psi)	150	-
7. Elongation @ room Temp (%) @ Break	200	480
8. Dry Opacity/Contrast Ratio:		
a) Type A: 10 mils DFT	1.00	-
b) Type B: 20 mils DFT	1.00	-
9. Permeability- Wet Cup Method (perms)		
a) Type A: @ 10 mils DFT	6	-
b) Type B: @ 20 mils DFT	6	-

C. QUALITATIVE REQUIREMENTS.

1. COLOR. This coating shall be white or stock factory ground in colors..
2. STORAGE STABILITY IN A PARTIALLY FULL CONTAINER. The paint shall show no skinning after 48 hours when tested as specified in III.C. 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 two years.
4. ODOR. The odor shall not be putrid during or after application.
5. ALKALI RESISTANCE. When tested as specified in III.A., a film of the coating shall not show any cracking, softening or loss of adhesion. Wrinkling shall be disregarded.
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. CONDITION IN CONTAINER. The coating 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 on the container.
8. FLEXIBILITY. When tested as specified in III.B., there shall be no cracking, chipping, 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 revision.

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

TABLE II. TESTS AND METHODS

TEST	METHODS
Condition in container	FTM Std. 141C, Meth. 3011.2
Permeability*	ASTM D 1653 (Wet Cup Method)
Directional reflectance, 45-0	ASTM E 97
Nonvolatile content	ASTM D 2369
Consistency, Krebs-Stormer	ASTM D 562
Drying time (Set-to-touch & Dry hard)	ASTM D 1640
Dry Opacity/Contrast Ratio	ASTM D 2805
Weight per gallon	ASTM D 1475
Tensile Strength*	ASTM D2370
Elongation*	ASTM D2370

**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.*

- A. **ALKALI RESISTANCE.** Immerse a solvent clean, dry test tube in a 400 ml beaker containing 4 inches of well-mixed coating for 5 seconds. Withdraw and suspend the tube in the same position as withdrawn and allow to dry at room temperature for 72 hours. Care must be exercised that the adhering film is not rubbed off. Immerse the coated portion of the test tube for 30 minutes in a 350 ml beaker containing 125 ml of 2 % sodium hydroxide solution maintained at 25 °C. Remove the test tube and allow to dry for 2 hours. Examine the adhering material for compliance with II.C.5.
- B. **FLEXIBILITY.** Draw down a film of the coating with a 0.002 inch doctor blade (approximately 0.004 inch cap clearance) on tin panels (prepared for FTMS 141C Method 2012.2). Air dry for 48 hours 25 °C and 50% relative humidity and bend rapidly over a 1/8 inch mandrel. Examine for compliance with II.C.8. as in FTMS 141C, method 6221.
- C. **STORAGE STABILITY IN PARTIALLY FULL CONTAINER.** Determine skinning after 48 hours accordance with Federal Test Method Std. 141C, method 3021.1, except use a ¾ filled 1 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 invalidate. 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.

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 PRODUCE.

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PRESIDENT FLORIDA SCHOOL PLANT MANAGEMENT ASSOCIATION

CHAIR FSPMA PAINT SPECIFICATIONS COMMITTEE