

TT-C-492C
 AMENDMENT-1
June 23, 1977

FEDERAL SPECIFICATION
 COATING COMPOUND, PAINT ANTISWEAT

This amendment, which forms a part of Federal Specification TT-C-492C, dated May 31, 1974, was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

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Paragraph 2.1, under "Federal Specifications", change "TT-P-143" to "PPP-P-1892".

Paragraph 2.2, under "American Society for Testing and Materials (ASTM) Standards", delete "D 2088 - Test for Low Concentration Lead" and add the following references:

- D 93 - Test for Flash Point by Pensky-Martens Closed Tester.
- D 562 - Test for Consistency of Paints Using the Stormer Viscosimeter.
- D 1475 - Test for Density of Paint, Varnish, Lacquer and Related Products.
- D 2369 - Volatile Content of Paints.

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Table I, last line, change maximum lead requirement from "0.5" to "0.06".

Add paragraph 3.5.9 as follows:

3.5.9 Lead content. When tested as specified in 4.3.14, the coating shall contain no more than 0.06 percent lead by weight of the total nonvolatile.

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Table II, add an additional column under tests for "ASTM method" and make the following changes:

line 10, delete "4041" under Fed. Test Method Std. No. 141 and add "D 2369" under ASTM method.

line 11, delete "4281" under Fed. Test Method Std. No. 141 and add "D 562" under ASTM method.

line 14, delete "4293" under Fed. Test Method Std. No. 141 and add "D 93" under ASTM method.

line 16, delete "4184" under Fed. Test Method Std. No. 141 and add "D 1475" under ASTM method.

last line, delete "table I" under requirement reference and add "3.5.9".

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Paragraph 4.3.14, delete in its entirety and add the following:

4.3.14 Lead content.

4.3.14.1 Sample preparation. Using a 0.006-inch film applicator and a mechanical applicator plate, duplicate drawdowns for each sample of well-mixed paint shall be made on a standard paint penetration chart and dried for 24 hours. The drawdown shall be at least 10 inches long on the sealed portion of the penetration chart. The drawdown shall be cut into discs of appropriate size to fit the sample holder of a fluorescence x-ray spectrometer.

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4.3.14.2 Procedure. Lead content shall be determined using an x-ray fluorescence spectrometer capable of determining lead content at a minimum level of 0.03 percent by weight of the total nonvolatile. The settings for a wavelength dispersive fluorescence spectrometer shall be as follows: (1)

<u>Element</u>	<u>Analytical Line</u>	<u>Angle</u>	<u>Crystal</u>	<u>Detection</u>	<u>Colli- meter</u>	<u>X-ray tube (MO)</u>
Pb	L	33.93	LiF(200)	Flow S.C.	Fine	60Kv 45Ma
Pb (backgrd I)		33.00	LiF(200)	Flow S.C.	Fine	60Kv 45Ma
Pb (backgrd II)		35.50	LiF(200)	Flow S.C.	Fine	60Kv 45Ma
Mo	K	20.33	LiF(200)	Flow S.C.	Fine	60Kv 45Ma

Pulse height selection shall be used in all measurements and counting time shall be 100 seconds. Place the sample disc in the wavelength dispersive unit. Measure the count rates of lead, lead background, and the Molybdenum Compton scattered background from the x-ray tube.

4.3.14.3 Calculation.

$$R = \frac{I_{Pb} - \frac{I_{Pb} \text{ (Background I)} + I_{Pb} \text{ (Background II)}}{2}}{I_{Mo}}$$

where I equals gross intensity. These results shall be compared to those obtained using a 0.06 percent lead standard made up from the same type of paint sample, and evaluated for compliance with 3.5.9.

(1) Energy dispersive fluorescence spectrometers shall be set up according to the manufacturer's manual.

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Paragraph 5.1, line 2, change "TT-P-143" to "PPP-P-1892".