

TT-P-641G  
 AMENDMENT-1  
 June 23, 1977

FEDERAL SPECIFICATION  
 PRIMER COATING, ZINC DUST-ZINC OXIDE  
 (FOR GALVANIZED SURFACES)

This amendment, which forms a part of Federal Specification TT-P-641G, dated July 9, 1976, was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

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Paragraph 3.2. Delete:

Chrome green (c.P.) and Chrome yellow (c.p.)

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Table III. At end of table III, add under characteristics: "Lead, percent nonvolatile"; under minimum for Types I, II and III, add "\_\_\_"; and under maximum for Types I, II and III, add "0.06".

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Add new paragraphs:

4.3.7 Lead content.

4.3.7.1 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.

4.3.7.2 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)

Element	Analytical Line	Angle	Crystal	Detection	Collimator	X-ray tube (KV)
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.

4.3.7.3 Calculation.

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

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

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

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