

MIL-C-81706  
INT. AMENDMENT 5  
13 November 1979  
USED IN LIEU OF  
AMENDMENT 4

## MILITARY SPECIFICATION

### CHEMICAL CONVERSION MATERIALS FOR COATING ALUMINUM AND ALUMINUM ALLOYS

This interim amendment is issued for use by the Naval Air Systems Command, with Military Specification MIL-C-81706 (dated) 30 June 1970.

#### Page 1

##### 1.2.2.1 Add:

"Form IV: Premixed liquid, thixotropic (ready for use)."

"Form V: Premeasured powder, thixotropic (ready for use after addition of water)."

#### Page 2

2.1 Delete: "L-B-560 Rottle, Screw Cap (Polyethylene)" and substitute: "MIL-B-26701, Bottle, Screw Cap and Carboys, Polyethylene Plastic".

Delete: "TT-P-143" and substitute: "PPP-P-1892".

#### Page 4

##### \*3.4 Add:

"Type IV and Type V films shall show an average weight of 2.8 to 6.5 grams of material adhering to panels tested in accordance with the method specified in 4.5.7. The material shall cling uniformly with no visual evidence of excessive run-off or lack of film coverage."

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\*3.10 Delete first sentence and substitute: "Materials conforming to this specification shall be capable of being stored for a minimum of 12 months."

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4.3.2 Delete: "a minimum of five gallons of solution" and substitute: "a minimum of eight one quart bottles of solution".

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\*4.3.3.1 Add new paragraph 4.3.3.1.1:

"4.3.3.1.1 Panel Preparation for Adherence Test. Three 3 inches x 10 inches x .032 inch panels of 7075-T6 aluminum alloy shall be cleaned with toluene followed by acetone. (3 inches x .032 inch x any length over 4 inches may be used.) The panels shall then be marked with a pencil line 4 inches from one end. Each clean, marked panel shall be placed in a separate 600 ml beaker and weighed with the beaker to the nearest tenth of a gram."

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\*Add new paragraph 4.3.7.

"4.3.7 Retention of qualification. In order to retain qualification of a product approved for listing on the Qualified Products List (QPL), the manufacturer shall verify by certification to the qualifying activity that the manufacturer's product complies with the requirements of this specification. Unless otherwise specified by the qualifying activity, the time of periodic verification by certification shall be in two-year intervals from the date of original qualification. The Government reserves the right to re-examine the qualified product whenever deemed necessary to determine that the product continues to meet any or all of the specification requirements."

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Add new paragraphs:

"4.5.7 Vertical Adherence Test. In addition to the other tests required for Class 1A materials, Form IV and V materials shall be tested for ability to adhere to a vertical surface as specified in 3.4."

"4.5.7.1 Material Preparation. One quart of the Form IV or Form V material (with the required water added) shall be thoroughly mixed and allowed to stand for 24 hours. Enough of the material to almost fill the beaker shall then be transferred to a 600 ml plastic beaker."

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"4.5.7.2 Adherence. Each previously prepared panel, in accordance with 4.3.3.1.1, shall be immersed, one at a time, in the coating material up to the 4 inch pencil line, lifted vertically above the surface of the material and allowed to drain for 45 seconds. The panel shall then be transferred without rinsing to the beaker in which it was originally weighed and the beaker and coated panel shall be weighed again to the nearest tenth of a gram."

"4.5.7.3 Weight of material clinging. The weight of material clinging to the panel is equal to the original weight of the panel plus the beaker subtracted from the weight of the panel plus the coating plus the beaker. Average weight determined from the three tests shall conform to 3.4."

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5.2 Delete: "Specification TT-P-143" and substitute: "PPP-P-1892".

5.2.1 Delete fourth sentence and substitute: "Polyethylene bottles with polyethylene lined screw cap closures, conforming to MIL-B-26701, shall be used for packaging of premixed liquids for touch-up brush application and for powder in quantities of 5 pounds or less."

Delete: "(see 6.2)" and substitute: "and the premeasured powder shall be packaged in one quart quantities with the bottle marked with the powder level and the added liquid level (see 6.2)."

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Add new paragraph 6.7.1:

"6.7.1 Conformity to qualified sample. It is understood that chemical conversion materials supplied under contract shall be identical in every respect to the qualification sample tested and found satisfactory, except for changes, if any, previously approved by the Government. Any unapproved changes from the qualification sample shall constitute cause for rejection."

NOTE: The margins of this amendment are marked with an asterisk to indicate where changes from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of the document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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