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Product: **PS-3010 (Lot# 191016M)** *(received 07-Nov-2019)*

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BOEING SPECIFICATION SUPPORT STANDARD

BSS7432

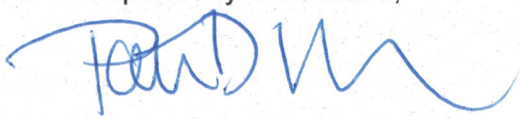
EVALUATION OF AIRPLANE MAINTENANCE MATERIALS
(Version: Original issue, 28-May-2019)
Supersedes Boeing D6-17487
(Note: Boeing D6-17487 was cancelled and superseded by BSS7432 on 28-May-2019)

Category: **Table I: Requirements for Paint Strippers**

Sandwich Corrosion Test	Conforms
Immersion Corrosion Test	Conforms
Hydrogen Embrittlement Test	Conforms
*Alloy Steel Surface Corrosion Test	Conforms

**required for brush-on/spray-on (manual) products that contain hydrogen peroxide.*

Respectfully Submitted,



Patricia D. Viani, SMI Inc.

Sandwich Corrosion Test : Specimen preparation, testing, and interpretation shall be in accordance with ASTM F1110 using the following materials and with the following exceptions:

a. Reagents and materials exception:
   (1). Clad 7075-T6 aluminum alloy in accordance with QQ-A-250/13 (AMS 4049 or AMS-QQ-A-250/13 optional) (2024-T3 Alclad specimens are neither required nor optional.)
   (2) Bare 7075-T6 aluminum alloy in accordance with QQ-A-250/12 (AMS 4045 or AMS-Q-A-250/12 optional) anodized in accordance with BAC 5019 or MIL-A-8625, Type I.
   (3) Anodize shall be sealed. (2024-T3 nonclad specimens are neither required nor optional).
   (4) Distilled or deionized water may be used in place of ASTM F1193, Type IV reagent grade water for control specimens.
   (5) The filter paper may be Whatman No. 5 or equivalent in place of Whatman GFA glass fiber paper.

b. Procedure exceptions:
   (1) The filter paper strips shall be 1 by 3 inches and shall be placed in the center of the sandwiched specimens.
   (2) Each sandwich specimen shall be held together with waterproof tape, with no more than 1 piece of tape (maximum width 0.75 inch) on each of two opposite edges.

c. Interpretation of result exceptions:
   (1) Leaching or lightening of the chromate sealed anodize coating shall not be cause for rejection.
   (2) Deposits or residues from the material being tested that are not products of corrosion of the test panel surface shall not be cause for rejection.
   (3) Special procedure for evaluation of fire extinguishing foams and liquids.

   Panels with very light darkening or staining, which have no obvious metal attack or pitting, may be swabbed (cotton-tipped swabs or cotton gauze) with a 0.26 mole/liter sulfuric acid solution and re-examined. If the coloration is substantially removed and there is no evidence of metal attack or pitting, the condition shall not be cause for rejection. (The 0.26 mole/liter sulfuric acid solution can be prepared by adding 1.5 cc of concentrated sulfuric acid (SG = 1.84) to 100 cc of distilled or deionized water.

   (4) Panels shall have a rating of 1 (no more than 5 percent of the surface area shall be corroded) or better in accordance with ASTM F 1110. The preferred method of determining the corroded area is by using image analysis. Other means approved by the purchaser may be substituted.

   (5) Any corrosion in excess of that shown by the control group shall be cause for rejection.

Sandwich Corrosion Test :continued

	Bare 7075-T6 (AMS 4045) Anodized per BAC 5019 (Type 3 chromate seal)	Clad 7075-T6 Aluminum (AMS 4049)
PRODUCT	**1**	**1**
Control	1	1

Result Conforms

Immersion Corrosion Test

The average weight loss of the Section 8.1 test specimens shall not exceed the following when prepared and tested in accordance with ASTM F 483 for 24 hours minimum.

SPECIMEN	**Weight Change (per 1"x2" panel)**	
	Max. Allowed	**RESULTS**
Clad 2024-T3 Aluminum (AMS 4041) AMS QQ-A-250/5	± 10 mg	**+ 0.2 mg**
Bare 2024-T3 Aluminum (AMS 4037) Alodined per MIL-DTL-5541	± 10 mg	**+ 0.9 mg**
Bare 2024-T3 Aluminum (AMS 4037) Anodized per MIL-A-8625 Type I, Sealed per BAC 5019 Class 3	± 10 mg	**+ 4.3 mg**
Bare 7075-T6 Aluminum (AMS 4045) Anodized per MIL-A-8625 Type I, Sealed per BAC 5019 Class 3	± 10 mg	**+ 4.9 mg**
4130 Steel, Cadmium-titanium plate, bake, and postplate treated per BAC 5804	± 10 mg	**4.0 mg**
4130 Steel, Cadmium plated per BAC 5701 (QQ-P-416, Type I Class 1)	± 10 mg	**0.2 mg**
6Al-4V Titanium per MIL-T-9046 (AMS 4911)	± 10 mg	**+ 0.1 mg**
QQ-M-44 Magnesium (AMS 4376) Dichromate treated per MIL-M-3171 Type III (scribed panel)	± 20 mg	**4.8 mg**
4130 Steel (AMS 6350) MIL-S-18729	± 30 mg	**+ 0.2 mg**

Result Conforms

Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing shall be in accordance with ASTM F 519 using cadmium plated Type 1a.2, Type 1c, or Type 2a specimens. All requirements of ASTM F519 for specimens, preparation, testing, and reporting shall apply. Type 1a.2 specimens shall meet the requirements of D6-4307.

Specimens: Type 1c, cadmium plated per MIL-STD-870.
(45% load, 150 hours, notched immersed for the duration, room temp.)

As received:
#1: No failure occurred within 150 hours.
#2: No failure occurred within 150 hours.
#3: No failure occurred within 150 hours.
#4: No failure occurred within 150 hours.

Result Conforms

The following test is required for brush-on/spray-on (manual) products that contain hydrogen peroxide.

Alloy Steel Surface Corrosion Test

TEST SPECIMENS

Four 2 x 3 x (0.40 - 0.125) inch test specimens shall be fabricated from AISI 4130 steel sheet.

TEST PROCEDURE

a. Place the specimens flat in a container that is inert to the paint stripper, and arrange them so that they do not contact each other.

b. Apply the paint stripper to the top surface of each specimen to a wet film thickness of 5 to 15 mils (0.005 to 0.015 inch). Allow the stripper to remain on the surface for 46 - 48 hours at a temperature of 90 F to 110 F.

c. After the exposure is completed, rinse the specimens thoroughly with warm (100 F to 140 F) tap water. Wipe the specimens with a dry cloth, and then solvent clean using MEK, MPK, or acetone until all surfaces are free of stripper residue. Wipe off excess solvent and place the specimens in a desiccator overnight (12 hr minimum dry time).

d. Remove the specimens from the desiccator and examine them for indications of etching, pitting, or distinct discoloration as evidence of chemical attack.
Note: The type of attack commonly observed with these kinds of strippers on bare steel is random dark brown to black spots, with dimensions typically greater than 0.1 inch.

e. Strippers showing evidence of attack shall be prohibited from use on or contact with unfinished alloy steel surfaces.

Specimens: Four 2" x 3" x 0.05" 4130 steel, bare
Observations after exposure:
No etching, no pitting, no distinct discoloration.

Result Conforms