

# SMI, Inc.

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Date: 25-Jan-2001

SMI/REF: 00AUG452

Product: **DCP BIOX 256** (received 29-Nov-2000)

Dilution: As received and 20 percent

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BOEING D6-17487 REVISION N  
Exterior and General Cleaners and Liquid Waxes,  
Polishes and Polishing Compounds

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Sandwich Corrosion Test

Conforms

Acrylic Crazing Test

Conforms

Paint Softening Test

Conforms

Hydrogen Embrittlement Test

Conforms

Respectfully submitted,



Patricia D. Viani, SMI, Inc.

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**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. Anodize shall be sealed. (2024-T3 nonclad specimens are neither required nor optional).
- (3) Distilled or deionized water may be used in place of ASTM F1193, Type IV reagent grade water for control specimens.
- (4) 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.
- (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.

	Bare 7075-T6 anodized per Mil-A-8625 Ty 1	Clad 7075-T6 Aluminum
CONC	1	1
Dilute	1	1
Control	1	1

Result Conforms



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Acrylic Crazeing Test:

The material being tested shall not craze, crack, or etch acrylic test specimens when tested in accordance with ASTM F 484 using Type C (stretched acrylic plastic in accordance with MIL-P-25690) stressed to an outer fiber stress of 4500 psi.

**Type C (MIL-P-25690) As received: No crazing, cracking or etching.**

**Dilute: No crazing, cracking, or etching.**

Result Conforms

Paint Softening Test Procedure:

- a. Testing shall be in accordance with ASTM F502 using the following coating systems.

(1) BMS 10-79, Type II primer applied in accordance with BAC 5882 plus BMS 10-60, Type II enamel in accordance with BAC 5845.

(2) BMS 10-79, Type III primer applied in accordance with BAC 5882, plus BMS 10-100 coating in accordance with BAC 5795.

- b. Three specimens conforming to Section 13a.(1) and three specimens conforming to Section 13a(2) shall be used for each test condition.

- c. The material being tested shall not produce a decrease in film hardness greater than two pencils, or any discoloration or staining.

NOTE: Slight darkening of the BMS 10-100 surface is acceptable.

As received: **Paint system 1:  $\leq 1$  pencil hardness change after 24 hour post-exposure dry time.**

**Paint system 2:  $\leq 1$  pencil hardness change after 24 hour post-exposure dry time; slight discoloration**

Dilute: **Paint system 1:  $\leq 1$  pencil hardness change after 24 hour post-exposure dry time.**

**Paint system 2:  $\leq 1$  pencil hardness change after 24 hour post-exposure dry time; very slight discoloration**

Result Conforms

Hydrogen Embrittlement Test:

Hydrogen Embrittlement testing shall be in accordance with ASTM F 519-93, using cadmium plated Type 1a, 1c, or 2a specimens. All requirements of ASTM F519-93 for specimens, preparation, testing, and reporting shall apply. Type 1a specimens shall meet the requirements of D6-4307.

**Type 1C:**

**As received: No failures within 150 hours.**

**Dilute: No failures within 150 hours.**

Result Conforms