

SMI, Inc.

12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Dirk Van Laer
Dend BVBA
Ambachtsstraat 46b
2390 Malle
BELGIUM

Date: 31-Jul-2000

SMI/REF: 00JUL298

Product: **DEXTAIR** (received 21-Jul-2000)

Dilution: As received and 10 percent

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Douglas Aircraft Company Customer Service Document
CSD #1, Revised August 2, 1988
Type I: Materials and Procedures for General Exterior
Cleaning of Painted and Unpainted Surfaces

| | |
|--|-----------------|
| Effect on Painted Surfaces | <u>Conform</u> |
| Residue | <u>Conforms</u> |
| Sandwich Corrosion | <u>Conforms</u> |
| Stress Cracking Test on Acrylic Plastics | <u>Conforms</u> |
| Immersion Corrosion, Aluminum | <u>Conforms</u> |
| Cadmium Removal | <u>Conforms</u> |
| Hydrogen Embrittlement | <u>Conforms</u> |

Respectfully submitted,



Patricia D. Viani, SMI Inc.

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1. Effect on Painted Surfaces Test: The material shall not produce a decrease in paint film hardness greater than one pencil; that is the number of the next softer pencil, or any discoloration or staining when tested in accordance with ASTM F 502. At least two panels shall be used per test.

As received: *No softening or discoloration of polyurethane topcoat when checked 24 hours after exposure per ASTM F 502.*

Dilute (10%): *No softening or discoloration of polyurethane topcoat when checked 24 hours after exposure per ASTM F 502.*

Result _____ Conforms _____

2. Residue Test: The material shall leave no residue or stain when tested in accordance with ASTM F 485.

AMS 4911: (As received): **PASS**

Dilute (10%): **PASS**

AMS 4049: (As received): **PASS**

Dilute (10%): **PASS**

Result _____ Conforms _____

3. Sandwich Corrosion Test: The compound shall not cause significant corrosion of aluminum alloy faying surfaces when tested in accordance with the following conditions of temperature and humidity:

- Alternate intervals of 16 hours in the humidity cabinet and eight hours in an oven. Beginning with the humidity cabinet exposure, the cycling test shall be continued for a total of seven days.
- The humidity cabinet shall be maintained at $100^{\circ} \pm 2^{\circ}\text{F}$ ($37.8^{\circ} \pm 1.1^{\circ}\text{C}$) and 98 to 100 percent relative humidity.
- The oven shall be maintained at $100^{\circ} \pm 5^{\circ}\text{F}$ ($37.8^{\circ} \pm 2.8^{\circ}\text{C}$)

Corrosion Rating:

- | | | |
|---|---|--|
| 0 | = | No visible corrosion |
| 1 | = | Very slight corrosion or discoloration |
| 2 | = | Slight corrosion |
| 3 | = | Moderate corrosion |
| 4 | = | Extensive corrosion |

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3. Sandwich Corrosion Test: continued

Corrosion on any panel exceeding that obtained using tap water shall be considered excessive.

| ALLOY | As Rec'd | Dilute (10%) | CONTROL |
|--------------------------------------|----------|--------------|---------|
| 2024-T3 Bare/Alodined per MIL-C-5541 | 1 | 1 | 1 |
| 2024-T3 Bare/Anodized per MIL-A-8625 | 1 | 1 | 1 |
| 2024-T3 Clad/Alodined per MIL-C-5541 | 1 | 1 | 1 |
| 2024-T3 Clad/Anodized per MIL-A-8625 | 1 | 1 | 1 |
| 7075-T6 Clad/Alodined per MIL-C-5541 | 1 | 1 | 1 |
| 7075-T6 Clad/Anodized per MIL-A-8625 | 1 | 1 | 1 |

Result Conforms

4. Stress Cracking Test on Acrylic Plastics: The compound shall not cause crazing, cracking, or other attack on acrylic based plastics when tested in accordance with ASTM F 484, using Type C material at a stress level of 4500 psi.

As received: *No crazing, cracking, or other attack.*

Dilute (10 %): *No crazing, cracking, or other attack.*

Result Conforms

5. Immersion Corrosion Test: The average weight loss of aluminum alloy specimens shall not exceed 10 milligrams per coupon when tested per ASTM F 483. The aluminum alloy 7075-T6 alclad coupons shall conform to Federal Specification QQ-A-250/13 Temp-T6, with corners and edges smoothed.

As received: *0.1 mg after 168 hours (no visible corrosion)*

Dilute (10 %): *0.6 mg after 168 hours (no visible corrosion)*

Result Conforms

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6. Cadmium Removal Test: The average weight loss of cadmium from low hydrogen embrittlement cadmium plated steel shall not exceed 10 milligrams per coupon when tested per ASTM F 483. The test duration shall be 24 hours. The test specimens shall be 1 x 2 x 0.040 inch 4130 steel panels (MIL-S-18729) with corners and edges smoothed and then plated with 0.003 to 0.006 inch of low hydrogen embrittlement cadmium plating (P/N 7452876-23)

As received: 3.2 mg after 24 hours (no visible corrosion)

Dilute (10 %): 0.9 mg after 24 hours (no visible corrosion)

Result _____ Conforms _____

7. Hydrogen Embrittlement: Hydrogen Embrittlement testing shall be in accordance with ASTM F 519, Type 1C.

As received: No failures within 150 hours.

Dilute (10 %): No failures within 150 hours.

Result _____ Conforms _____