

RESISTANCE TO SCAB CORROSION

Application

This method is used to determine the resistance of paint systems to scab corrosion under accelerated conditions. The method reproduces in the laboratory the blister type of corrosion that occurs in service following damage to a paint film.

Apparatus Required

Saltspray Cabinet

According to ASTM B 117

Humidity Cabinet

According to ASTM D 2247

Scriber

Carbide tipped, Model 90C

Source: Aircraft Specialties Inc.
Lapeer, MI 48446 U.S.A.

Painted Test Panels

(UMA) Size 105 x 190 mm; prepared according to FLTM BI 103-02, Section Bb.

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Procedure

1. Age painted test panels for 72 h at 23 +/- 2 °C.
2. Scribe lines, approx 150 mm in length, 20 mm apart and at least 20 mm inboard from panel's longer edge, through the paint film down to bare metal.

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2001 03 13	Revised	Editorial – no technical change A. Cockman
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3. Take 3 panels and submit them to 10 of the following test cycles; each cycle is comprised of steps a) through c).

a) 24 h saltspray

Note: Panels are to be suspended at an angle as specified in ASTM B 117.

b) 4 x 24 h humidity test comprising

- 8 h at 100 % relative humidity at 38 +/- 1 °C
- 16 h at normal temperature and relative humidity. This is achieved by switching off the heating and opening the humidity cabinet.

Notes: Panels shall neither be rinsed nor wiped off after saltspray test prior to the humidity test cycles.

Panels are to be positioned so that

- 1) condensation occurs on test surface;
- 2) no contact occurs between test panels or with any other metallic materials and
- 3) water condensing from the roof of the cabinet or test panels does not fall onto other test panels.

c) 48 h at normal room temperature and relative humidity (in the open humidity cabinet).

4. Remove panels from cabinet, rinse with water, dry and examine.

Evaluation

Evaluate within 2 h after completion of the 10 test cycles. Measure and report the maximum corrosion creep in millimetres, on either side of the scribed lines.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.