

SMI Inc.

SCIENTIFIC MATERIAL INTERNATIONAL

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Product: E-Z Grip (Marine Formula) (rec'd 16-Aug-1995)

Dilution: As received

ASTM F 1111-88

CORROSION OF LOW-EMBRITTLING CADMIUM PLATE

BY AIRCRAFT MAINTENANCE CHEMICALS

SCOPE

This test method is intended as a means of determining the corrosive effects of aircraft maintenance chemicals on low-embrittling cadmium plating used on aircraft high-strength steel, under conditions of total immersion by quantitative measurements of weight change.

PROCEDURE

Dry the precleaned specimens at 110° C for 1 hour, allow to cool to room temperature in a desiccator, then weigh to the nearest 0.1 mg.

Transfer the specimens to the vessel containing the preheated maintenance chemical solution. Seal the test vessel to prevent loss of vapor. Maintain at the required temperature and expose for a period of 24 hours.

Remove the specimens at the end of the exposure period and proceed as follows:

- a. Hold the specimen in forceps and rinse thoroughly in a 1 liter beaker into which tap water is flowing rapidly.
- b. Rinse thoroughly in water at room temperature.
- c. Rinse with a stream of acetone from a wash bottle. Shake free from acetone and dry.
- d. Place the specimens in an oven at $110 \pm 2^\circ \text{C}$ for 1 hour and allow to cool to room temperature in a desiccator.
- e. Reweigh the specimens to the nearest 0.1 mg and record.

Average weight loss per 1" x 2" panel: +0.12 mg/cm²/24hrs

Product layers upon standing.

Respectfully submitted,

Patricia D. Otero, SMI Inc.