

Submitted for recognition as an American National Standard

Exfoliation Testing of Aluminum

1. SCOPE:

To provide the aerospace industry with guidance standards for aluminum alloy samples which have been exposed to corrosion conditions which promote exfoliation so as to evaluate susceptibility of products to exfoliation corrosion.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM G 34 Exfoliation Corrosion Susceptibility in 2XXX and 7XXX Series Aluminum Alloys
(EXCO Test)

3. TECHNICAL REQUIREMENTS:

3.1 Test Procedure:

Shall be in accordance with ASTM G 34.

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3.2 Acceptance Guidance Criterion:

Visual appearance of exfoliation shall not be more severe than the specified photo in Figure 1. When this document is called out on a drawing or specification, and no photograph is specified, exfoliation shall not be more severe than Photo B.

3.3 A typical microstructure of exfoliation corrosion is presented in Figure 2.

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