



AEROSPACE MATERIAL SPECIFICATION

AMS4270™**REV. C**

Issued	1995-05
Revised	1997-09
Noncurrent	2007-03
Reaf. Nonc.	2012-02
Stabilized	2016-11

Superseding AMS4270B

Aluminum Alloy, Alclad Flat Sheet
4.1Cu - 1.4Mg - 0.45Mn (Alclad 2424-T3)
Solution Heat Treated and Cold Worked

UNS A82424

RATIONALE

AMS4270C stabilizes this document because it represents mature technology that is not expected to change and thus no further revisions are anticipated; the alloy is no longer being produced to this specification.

STABILIZED NOTICE

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1. SCOPE:

1.1 Form:

This specification covers an aluminum alloy in the form of sheet clad on both sides with a different aluminum alloy.

1.2 Application:

This sheet has been used typically for components requiring good strength, corrosion resistance, high toughness, and resistance to fatigue crack growth, but usage is not limited to such applications.

1.2.1 Certain design and processing procedures may cause this sheet to become susceptible to stress-corrosion cracking; ARP823 recommends practices to minimize such conditions.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification 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.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

- AMS 2355 Quality Assurance Sampling and Testing, Aluminum Alloys and Magnesium Alloys, Wrought Products, Except Forging Stock, and Rolled, Forged, or Flash Welded Rings
- MAM 2355 Quality Assurance Sampling and Testing, Aluminum Alloys and Magnesium Alloys, Wrought Products, Except Forging Stock, and Rolled, Forged, or Flash Welded Rings, Metric (SI) Units

2.1 (Continued):

AMS 2772 Heat Treatment of Aluminum Alloy Raw Materials

ARP823 Minimizing Stress-Corrosion Cracking in Wrought Heat-Treatable Aluminum Alloy Products

2.2 ASTM Publications:

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

ASTM B 646 Fracture Toughness Testing of Aluminum Alloys
ASTM B 666/B 666M Identification Marking of Aluminum Products
ASTM E 561 R-Curve Determination

2.3 ANSI Publications:

Available from American National Standards Institute, Inc., 11 West 42nd Street, New York, NY 10036-8002.

ANSI H35.2 Dimensional Tolerances for Aluminum Mill Products
ANSI H35.2M Dimensional Tolerances for Aluminum Mill Products (Metric)

3. TECHNICAL REQUIREMENTS:

3.1 Composition:

Shall conform to the percentages by weight shown in Tables 1 and 2, determined in accordance with AMS 2355 or MAM 2355.

TABLE 1 - Composition, Core (2424)

Element	min	max
Copper	3.8	4.4
Magnesium	1.2	1.6
Manganese	0.30	0.6
Zinc	--	0.20
Iron	--	0.12
Silicon	--	0.10
Titanium	--	0.10
Other Impurities, each	--	0.05
Other Impurities, total	--	0.15
Aluminum	remainder	