

AEROSPACE MATERIAL SPECIFICATION

Issued JAN 1997
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Superseding AMS 4273A

Aluminum Alloy, Sheet and Plate
(2424-T3 Flat Sheet and Plate)
Solution Heat Treated and Cold Worked
(Composition similar to UNS A92424)

Rationale: AMS 4273B is a Five Year Review and update of this specification.

1. SCOPE

1.1 Form:

This specification covers an aluminum alloy in the form of sheet and plate.

1.2 Application:

This product has been used typically for formed structural parts with good tensile strength, corrosion resistance, 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 issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

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SAE WEB ADDRESS:

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001 or www.sae.org.

AMS 2355	Quality Assurance Sampling and Testing, Aluminum Alloys and Magnesium Alloys, Wrought Products, Except Forging Stock, and Rolled, Forged or Flash Welded Rings
AMS 2772	Heat Treatment of Aluminum Alloy Raw Materials
ARP823	Minimizing Stress-Corrosion Cracking in Wrought Heat Treatable Aluminum Alloy Products
AS1990	Aluminum Alloy Tempers

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959 or www.astm.org.

ASTM B 646	Fracture Toughness Testing of Aluminum Alloys
ASTM B 666/B 666M	Identification Marking of Aluminum and Magnesium Products
ASTM E 399	Plane-Strain Fracture Toughness of Metallic Materials
ASTM E 561	R-Curve Determination

2.3 ANSI Publications:

Available from ANSI, 25 West 43rd Street, New York, NY 10036 or www.ansi.org.

ANSI H 35.2	Dimensional Tolerances for Aluminum Mill Products
ANSI H 35.2M	Dimensional Tolerances for Aluminum Mill Products (Metric)

3. TECHNICAL REQUIREMENTS:

3.1 Composition:

Shall conform to the percentages by weight shown in Table 1, determined in accordance with AMS 2355.

TABLE 1 - Composition

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