



AEROSPACE MATERIAL SPECIFICATION

AMS4468™

REV. A

Issued 2012-01
Reaffirmed 2017-09
Revised 2022-10

Superseding AMS4468

Aluminum Alloy, Plate
5.0Cu - 0.4Mn - 0.5Mg - 0.4Ag (2139-T84)
Solution Heat Treated, Cold Worked, and Artificially Aged
(Composition similar to UNS A92139)

RATIONALE

AMS4468A results from a SAE Five-Year Review and update of this specification with changes to prohibit unauthorized exceptions (3.3.1.1, 3.6, 4.4.1, 5.1.1, 8.4), update form (1.1), applicable documents (Section 2, 3.2), ordering information (8.5), and allow the use of the immediate prior specification revision (8.3).

1. SCOPE

1.1 Form

This specification covers an aluminum alloy in the form of plate with nominal thickness from 1.000 to 5.000 inches (25.40 to 127.00 mm), inclusive (see 8.5).

1.2 Application

This product has been used typically for parts requiring a high level of mechanical properties and good resistance to stress-corrosion cracking, but usage is not limited to such applications.

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.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AMS2355 Quality Assurance, Sampling and Testing, Aluminum Alloys and Magnesium Alloy, Wrought Products (Except Forging Stock), and Rolled, Forged, or Flash Welded Rings

AMS2772 Heat Treatment of Aluminum Alloy Raw Materials

AS7766 Terms Used in Aerospace Metals Specifications

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For more information on this standard, visit
<https://www.sae.org/standards/content/AMS4468A/>

2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM B594	Ultrasonic Inspection of Aluminum-Alloy Wrought Products
ASTM B645	Linear-Elastic Plain-Strain Fracture Toughness Testing of Aluminum Alloys
ASTM B660	Packing/Packaging of Aluminum and Magnesium Products
ASTM B666/B666M	Identification Marking of Aluminum and Magnesium Products
ASTM E399	Linear-Elastic Plane-Strain Fracture Toughness of Metallic Materials
ASTM G34	Exfoliation Corrosion Susceptibility in 2XXX and 7XXX Series Aluminum Alloys (EXCO Test)
ASTM G47	Determining Susceptibility to Stress-Corrosion Cracking of 2XXX and 7XXX Aluminum Alloy Products

2.3 ANSI Accredited Publications

Copies of these documents are available online at <https://webstore.ansi.org/>.

ANSI H35.1/H35.1M	Alloy and Temper Designation Systems for Aluminum
ANSI H35.2	Dimensional Tolerances for Aluminum Mill Products
ANSI H35.2M	Dimensional Tolerances for Aluminum Mill Products (Metric)

2.4 Definitions

Terms used in AMS are defined in AS7766.

3. TECHNICAL REQUIREMENTS

3.1 Composition

Shall conform to the percentages by weight shown in Table 1, determined in accordance with AMS2355.

Table 1 - Composition

Element	Min	Max
Silicon	--	0.10
Iron	--	0.15
Copper	4.5	5.5
Manganese	0.20	0.6
Magnesium	0.20	0.8
Chromium	--	0.05
Zinc	--	0.25
Titanium	--	0.15
Silver	0.15	0.6
Vanadium	--	0.05
Other Elements, each	--	0.05
Other Elements, total	--	0.15
Aluminum	remainder	