



# AEROSPACE MATERIAL SPECIFICATION

AMS4375™

REV. M

Issued	1947-07
Reaffirmed	1995-05
Revised	2017-06

Superseding AMS4375L

Sheet and Plate, Magnesium Alloy  
3.0Al - 1.0Zn - 0.20Mn (AZ31B-O)  
Annealed and Recrystallized  
(Composition similar to UNS M11311)

## RATIONALE

AMS4375M revises the Title to correct the temper designation, revises Composition (Table 1), Condition (3.2), Properties (3.3.3), Reports (4.4.1) and Identification, and is a Five-Year Review and update of this specification.

### 1. SCOPE

#### 1.1 Form

This specification covers a magnesium alloy in the form of sheet and plate from 0.016 to 3.000 inches (0.41 to 76.20 mm), inclusive, in thickness (see 8.4).

#### 1.2 Application

This product has been used typically for low-strength parts requiring rigidity with low density, 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](http://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

ARP1917 Clarification of Terms Used in Aerospace Metals Specifications

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## 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](http://www.astm.org).

ASTM B660	Packaging/Packing of Aluminum and Magnesium Products
ASTM B666/B666M	Identification Marking of Aluminum and Magnesium Products
ASTM E9	Compression Testing of Metallic Materials at Room Temperature

## 2.3 ANSI Accredited Publications

Copies of these documents are available online at <http://webstore.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 AMS2355.

**Table 1 - Composition**

Element	Min	Max
Aluminum	2.5	3.5
Zinc	0.7	1.3
Manganese	0.20	1.0
Silicon	--	0.05
Copper	--	0.05
Calcium	--	0.04
Iron	--	0.005
Nickel	--	0.005
Other Elements, each (3.1.1)	--	0.10
Other Elements, total (3.1.1)	--	0.30
Magnesium	remainder	

3.1.1 Determination not required for routine acceptance.

### 3.2 Condition

The product shall be supplied in the following condition:

3.2.1 Annealed and recrystallized.