

# AEROSPACE MATERIAL SPECIFICATION

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Superseding AMS 4339

Aluminum Alloy, Rolled or Cold Finished Bars and Rods  
4.4Cu - 1.5Mg - 0.60Mn (2024-T851)  
Solution Heat Treated, Cold Worked, and Artificially Aged  
(Composition imilar to UNS A92024)

## 1. SCOPE:

### 1.1 Form:

This specification covers an aluminum alloy in the form of rolled or cold finished bars and rods.

### 1.2 Application:

These products have been used typically for parts requiring higher yield strength than is afforded by naturally aged tempers of this alloy and whose fabrication does not involve welding, 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 canceled and no superseding document has been specified, the last published issue of that document shall apply.

### 2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001 or [www.sae.org](http://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

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#### TO PLACE A DOCUMENT ORDER:

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Email: [custsvc@sae.org](mailto:custsvc@sae.org)  
<http://www.sae.org>

#### SAE WFR ADDRESS:

## 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 E 594	Ultrasonic Inspection of Aluminum-Alloy Products for Aerospace Applications
ASTM B 660	Packaging/Packing of Aluminum and Magnesium Products
ASTM B 666/B 666M	Identification Marking of Aluminum and Magnesium Products

## 2.3 ANSI Publications:

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

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 Table 1, determined in accordance with AMS 2355.

TABLE 1 - Composition

Element	min	max
Silicon	--	0.50
Iron	--	0.50
Copper	3.8	4.9
Manganese	0.30	0.9
Magnesium	1.2	1.8
Chromium	--	0.10
Zinc	--	0.25
Titanium	--	0.15
Other Impurities, Each	--	0.05
Other Impurities, Total	--	0.15
Aluminum	remainder	

## 3.2 Condition:

The product shall be solution heat treated, cold worked, and artificially aged and shall be stress-relieved by stretching or other means after heat treatment to produce a nominal permanent set of 1.5% but not less than 1% nor more than 3%. The heat treatment and aging shall be performed in accordance with AMS 2772.