

AEROSPACE MATERIAL SPECIFICATION

SAE AMS4167

REV. J

Issued 1967-04
Revised 2005-01
Cancelled 2012-01

Superseded by AMS4617

Aluminum Alloy, Extrusions
5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075-T73511)
Solution Heat Treated, Stress Relieved by Stretching, and Overaged
(Composition similar to UNS A97075)

RATIONALE

AMS4167J has been designated Cancelled and Superseded because equivalent technical requirements are provided by other specifications.

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of January 2012 and has been superseded by the specification listed below. The requirements of the latest issue of the specification listed below shall be fulfilled whenever reference is made to the cancelled AMS4167. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications, noting that it has been superseded by the specification listed below.

Cancelled specifications are available from SAE.

Temper	Superseding Material and Specification
T73511	7075-T73511 in accordance with AMS4617 Aluminum Alloy, Extrusions, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075-T73, 7075-T73511, 7075-T73510) Solution Heat Treated, Stress Relieved by Stretching When Required, and Overaged

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Documents
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1. SCOPE:

1.1 Form:

This specification covers an aluminum alloy in the form of extruded bars, rods, wire, shapes, and tubing.

1.2 Application:

These extrusions have been used typically for parts subject to excessive warpage during machining and for parts requiring high strength and 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, 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

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 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 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	--	0.40
Iron	--	0.50
Copper	1.2	2.0
Manganese	--	0.30
Magnesium	2.1	2.9
Chromium	0.18	0.28
Zinc	5.1	6.1
Titanium	--	0.20
Other Elements, each	--	0.05
Other Elements, total	--	0.15
Aluminum	remainder	

3.2 Condition:

Solution heat treated, stress relieved by stretching to produce a nominal permanent set of 1.5%, but not less than 1% nor more than 3%, and precipitation heat treated to the T73511 temper (See AS 1990). Heat treatments shall be performed in accordance with AMS 2772.

- 3.2.1 Extrusions may receive minor straightening, after stretching, of an amount necessary to meet the requirements of 3.5.