AEROSPACE MATERIAL SPECIFICATION

AMS4405™ REV. C

Issued 2006-08
Revised 2018-04

Superseding AMS4405B

Aluminum Alloy, Alclad Sheet (6156-T4)
1.0Si - 0.90Cu - 0.60Mn - 0.90Mg
Solution Heat Treated and Naturally Aged
(Composition similar to UNS AA6156)

RATIONALE

AMS4405C results from a limited scope ballot to correct an inadvertent error in the marking paragraph introduced at the prior revision.

1. SCOPE

1.1 Form

This specification covers an aluminum alloy procured in the form of sheet 0.078 to 0.197 inch (2.00 to 5.00 mm), inclusive, in nominal thickness, Alclad on both sides (see 8.5).

1.2 Application

These products have been used typically for formed structural parts requiring good formability in T4 temper and ability to develop improved resistance to fatigue crack growth and high toughness with moderate strength when aged to T62 temper, 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

ARP1917 Clarification of Terms Used in Aerospace Metals Specifications

2.2 ASTM Publications

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
Tel: +1 724-776-4970 (outside USA)
Fax: 724-776-0790
Email: CustomerService@sae.org
SAE WEB ADDRESS: **http://www.sae.org**

SAE values your input. To provide feedback on this Technical Report, please visit
http://standards.sae.org/AMS4405C

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 B660 Packaging/Packing of Aluminum and Magnesium Products

ASTM B666/B666M Identification Marking of Aluminum and Magnesium Products

ASTM E647 Measurement of Fatigue Crack Growth Rates

2.3 ANSI Accredited Publications

Copies of these documents are available online at http://webstore.ansi.org/.

ANSI H35.1/ H35.1M Standard Alloy and Temper Designation System For Aluminum

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 Tables 1 and 2, determined in accordance with AMS2355.

Table 1 - Composition, core (6156)

Element	Min	Max
Silicon	0.7	1.3
Iron	--	0.20
Copper	0.7	1.1
Manganese	0.40	0.7
Magnesium	0.6	1.2
Chromium	--	0.25
Zinc	0.10	0.7
Other Elements, each	--	0.05
Other Elements, total	--	0.15
Aluminum	remainder	

Table 2 - Composition, cladding (1300)

Element	Min	Max
Silicon	--	0.20
Iron	--	0.30
Copper	--	0.05
Manganese	--	0.03
Magnesium	--	0.03
Zinc	0.20	0.50
Titanium	--	0.03
Other Elements, each	--	0.05
Other Elements, total	--	0.15
Aluminum	remainder	