



AEROSPACE MATERIAL SPECIFICATION

AMS4183™

REV. A

Issued	2005-10
Revised	2011-04
Reaffirmed	2016-09

Superseding AMS4183

Aluminum Alloy, Extruded Profiles (2027-T3511)
4.4Cu - 1.2Mg - 0.8Mn - 0.10Zr
Solution Heat Treated and Stress Relieved by Stretching
(Composition similar to UNS A92027)

RATIONALE

AMS4183A has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE

1.1 Form

This specification covers an aluminum alloy in the form of extruded profiles.

1.2 Application

These extrusions have been used typically for machined parts requiring dimensional stability during machining processes, high strength and damage tolerance, but usage is not limited to such applications.

1.2.1 Certain processing procedures may cause this product to become susceptible to stress-corrosion cracking; ARP823 recommends practices to minimize such conditions.

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.

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<http://www.sae.org/technical/standards/AMS4183A>**

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 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
- AS1990 Aluminum Alloy Tempers
- ARP823 Minimizing Stress-Corrosion Cracking in Wrought Heat-Treatable Aluminum Alloy Products

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 B 594 Ultrasonic Inspection of Aluminum Alloy Wrought Products for Aerospace Applications
- ASTM B 645 Linear-Elastic Plane Strain Fracture Toughness Testing of Aluminum Alloys
- ASTM B 660 Packaging of Aluminum and Magnesium Products
- ASTM B 666/B 666M Identification Marking of Aluminum and Magnesium Products
- ASTM E 399 Linear-Elastic Plane-Strain Fracture Toughness (K_{Ic}) Testing of Metallic Materials

2.3 ANSI Publications

Available from American National Standards Institute, 25 West 43rd Street, New York, NY 10036-8002, Tel: 212-642-4900, 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 AMS2355.