



<b>AEROSPACE MATERIAL SPECIFICATION</b>	<b>AMS4163™</b>	<b>REV. G</b>
	Issued 1968-05 Reaffirmed 2008-05 Revised 2022-10	
Superseding AMS4163F		
Aluminum Alloy, Extrusions 6.3Cu - 0.30Mn - 0.18Zr - 0.10V - 0.06Ti (2219-T3511) Solution Heat Treated, Stress-Relieved by Stretching, and Straightened (Composition similar to A92213)		

### RATIONALE

AMS4163G results from a Five-Year Review and update of this specification with changes to update general agreement language related to unauthorized exceptions (3.3.3, 3.6, 8.5), applicable documents (Section 2), ultrasonic inspection (3.4.1), hardness (8.2), ordering information (8.6), and allow the use of the immediate prior specification revision (8.4).

### 1. SCOPE

#### 1.1 Form

This specification covers an aluminum alloy in the form of extruded bars, round wire, profiles, and tubing up to 2.999 inches (76.17 mm), inclusive, in thickness, nominal diameter or wall thickness with cross-sectional area 25 square inches (161 cm<sup>2</sup>) and under (see 8.6).

#### 1.2 Application

These extrusions have been used typically for structural parts requiring high strength up to 500 °F (260 °C) after proper precipitation heat treatment and which may require welding during fabrication, but usage is not limited to such applications.

1.2.1 Certain design and fabricating procedures may cause extrusions in the specified condition 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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