

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS4152 E

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ALUMINUM ALLOY EXTRUSIONS 4.3Cu - 1.5Mg - 0.6Mn (24S-T4)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Bars, rods, and shapes.
3. COMPOSITION:

Copper	3.8 - 4.9
Magnesium	1.2 - 1.8
Manganese	0.30 - 0.9
Iron	0.5 max
Silicon	0.5 max
Chromium	0.10 max
Zinc	0.10 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	remainder

4. CONDITION: Solution heat treated.

- 4.1 Unless otherwise specified, extrusions shall be supplied with the as-extruded surface finish.

5. TECHNICAL REQUIREMENTS:

- 5.1 Tensile Properties:

Nominal Diameter or Least Thickness or Area Inches	Tensile Strength psi, min	Yield Strength at 0.2% Offset or at Extension Indicated (E = 10,500,000)		Elongation % in 4D
		psi, min	Extension Under Load in. in 2 in.	
0.050 - 0.249, incl	57,000	42,000	0.0120	12
Over 0.249 - 0.749, incl	60,000	44,000	0.0124	12
Over 0.749 - 1.499, incl	65,000	46,000	0.0128	10
1.500 - 25 sq in., incl	70,000	52,000	0.0139	10
Over 25 - 32 sq in., incl	68,000	48,000	0.0131	8

- 5.1.1 The tensile property requirements shall be based on the thickness of the portion of the extrusion from which the test specimens are taken.
- 5.1.2 If sizes other than those shown above are ordered, tensile properties shall be as agreed upon by purchaser and vendor.

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