AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 4152 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) psi, min	Extension Under Load in. in 2 in.	Elongation % in 4D
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.