AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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New York City

AMS 4152 C

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ALUMINUM ALLOY BARS (EXTRUDED)
Copper Magnesium Manganese (24S-T)

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	0.3 - 0.9
Iron	0.5 max
Silicon	0.5 max
Chromium	0.25 max
Zinc	0.10 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	Remainder

4. CONDITION: (a) Solution heat treated conforming to the following minimum physical properties:

Diameter or Least Thickness	Tensile Strength	Yield Strength at 0.2% Offset or at Extension Indicated		
			Extension Under Load	Elongation
Inches	psi	psi	Inch in 2 in.	% in 4D
0.050 - 0.249, incl.	57,000	42,000	0.0119	12
0.250 - 0.749, incl.	60,000	44,000	0.0123	12
0.750 - 1.499, incl.	65,000	46,000	0.0127	10
1.500 and over	70,000	52,000	0.0138	10

NOTE: In cases where significant portions of cross-sections are indicated on the drawing, test specimens shall be taken from the indicated portion, and physical properties of such specimens shall meet the foregoing requirements based upon their respective thicknesses.

(b) The physical properties specified apply to all sizes up to a maximum cross-sectional area of 25 square inches. If other sizes are ordered, physical properties shall be as agreed between vendor and purchaser.

(c) Bars, rods and shapes shall have hardness of not less than Brinell 100, using 500 kg load and 10 mm ball or the equivalent, or not less than Brinell 106, using 1000 kg load and 10 mm ball, but shall not be rejected on the basis of hardness if they conform to the minimum tensile requirements.

(d) Unless otherwise specified, all bars, rods and shapes shall be supplied with the extruded surface finish.