AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4154B

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ALUMINUM ALLOY EXTRUSIONS

5.6 Zn - 2.5 Mg - 1.6 Cu - .25 Cr
75S-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:

Zinc	5.10 - 6.10
Magnesium	2.10 - 2.90
Copper	1.20 - 2.00
Chromium	0.15 - 0.40
Iron	0.70 max
Silicon	0.50 max
Manganese	0.30 max
Titanium	0.20 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	remainder

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

Nominal Diameter or Least Thickness or Area Inches	Tensile Strength psi	Yield Strength at 0.2% Offset or at Extension Indicated psi	Extension Under Load Inch in 2 in.	Elongation % in 4D
Under 0.250	78,000	70,000	0.0175	6
0.250 to 4.00, incl 20 sq in. max	80,000	70,000	0.0175	6
Over 4.00 to 5.00, incl and over 20 sq in. to 25 sq in., incl	78,000	68,000	0.0171	6
Over 25 sq in. to 32 sq in., incl	75,000	65,000	0.0165	5

Note: The physical properties shall be based on the thickness of the portion of the extrusion from which the tensile test specimens are taken and the physical properties of such specimens shall be in accordance with the values shown above.

(b) If sizes other than those shown under (a) are ordered, physical properties shall be as agreed between vendor and purchaser.

(c) Extrusions shall have hardness not lower than Brinell 135, using 500 kg load and 10 mm ball or the equivalent, or not lower than Brinell 140, 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.