AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4154C

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ALUMINUM ALLOY EXTRUSIONS
5.6Zn - 2.5Mg - 1.6Cu - 0.25Cr (75S-T6)

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:

4.1 Solution and precipitation heat treated.

4.2 Unless otherwise specified, extrusions shall be supplied with an as-extruded surface finish.

5. TECHNICAL REQUIREMENTS:

5.1 Physical Properties: Extrusions shall conform to the following requirements:

Nominal Diameter, Least Thickness or Area inches	Tensile Strength psi. min	Yield Strength at 0.2% offset or at extension indicated: psi. min	Yield Strength at 0.2% offset or at extension indicated: Extension Under Load inch in 2 in.	Elongation % in 4D. min
Under 0.25	78,000	70,000	0.0175	7
0.25 to 2.99, incl	80,000	72,000	0.0178	7
3.00 to 4.49, incl Area to 20 sq in., incl	80,000	70,000	0.0175	7
Area over 20 to 32 sq in., incl	78,000	70,000	0.0175	6
4.50 to 5.00, incl Area to 32 sq in., incl	78,000	68,000	0.0171	6

Note 1: The physical properties shall be based on the thickness of the portion of the extrusion from which the tensile test specimens are taken. Specimens from sections over 1.5 in. in diameter or thickness shall be taken midway between the center and surface.