

# AERONAUTICAL MATERIAL SPECIFICATION

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

## AMS 4154 D

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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		5.1	-	6.1
Magnesium		2.1	-	2.9
Copper		1.2	-	2.0
Chromium		0.15	-	0.40
Iron		0.7		max
Silicon		0.5		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:** Solution and precipitation heat treated.

4.1 Unless otherwise specified, extrusions shall be supplied with an 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 = 10,300,000)		Elongation % in 4D, min
		psi, min	Extension Under Load in. in 2 in.	
Under 0.25	78,000	70,000	0.0176	7
0.25 - 2.99, incl	80,000	72,000	0.0180	7
Over 2.99 - 4.49, incl				
Area to 20 sq in., incl	80,000	70,000	0.0176	7
Area over 20 - 32 sq in., incl	78,000	70,000	0.0176	6
Over 4.49 - 5.00, incl				
Area to 32 sq in., incl	78,000	68,000	0.0172	6

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