

# AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 4122c

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

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## ALUMINUM ALLOY BARS, ROLLED 5.6Zn - 2.5Mg - 1.6Cu - 0.3Cr (7075-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 wire.
3. APPLICATION: Primarily for parts requiring high strength and whose fabrication does not involve welding or forming.
4. COMPOSITION:

Zinc	5.1 - 6.1
Magnesium	2.1 - 2.9
Copper	1.2 - 2.0
Chromium	0.18 - 0.40
Iron	0.7 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

5. CONDITION: Rolled or cold finished, and solution and precipitation heat treated, ∅ unless otherwise specified.
6. TECHNICAL REQUIREMENTS:

### 6.1 Tensile Properties:

Tensile Strength, psi	77,000 min
Yield Strength at 0.2% Offset or at 0.0168 in. in 2 in. Extension Under Load (E = 10,300,000), psi	66,000 min
Elongation, % in 4D	7 min

- 6.1.1 ∅ When a dispute occurs between purchaser and vendor over the yield strength value, yield strength determined by the offset method shall apply.
- 6.1.2 ∅ Tensile properties shall be as agreed upon by purchaser and vendor on material under 0.125 in., on rounds over 4.000 in. in diameter, on squares over 3.500 in., and on rectangles with thickness over 3.000 in. and width over 6.000 in. (width over 10.000 in. for rectangles 3.000 in. and under in thickness).

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