



# AEROSPACE MATERIAL SPECIFICATIONS

## AMS 4115A

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N.Y. 10017

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### ALUMINUM ALLOY BARS, ROLLED, DRAWN, OR COLD FINISHED 1.0Mg - 0.60Si - 0.30Cu - 0.20Cr (6061-0)

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 moderate strength, especially where such parts and assemblies require brazing or welding during fabrication.
4. COMPOSITION:

	min	max
∅ Magnesium	0.8	- 1.2
∅ Silicon	0.40	- 0.8
∅ Copper	0.15	- 0.40
∅ Chromium	0.04	- 0.35
∅ Iron	--	0.7
∅ Zinc	--	0.25
∅ Manganese	--	0.15
∅ Titanium	--	0.15
∅ Other Impurities, each	--	0.05
∅ Other Impurities, total	--	0.15
∅ Aluminum	remainder	

5. CONDITION: Rolled, drawn, or cold finished, as ordered, and annealed.
6. TECHNICAL REQUIREMENTS: The product shall conform to the following requirements; tensile properties shall be determined in accordance with the latest issue of AMS 2355.
- 6.1 Tensile Properties: Except as specified in 6.1.1 and 6.1.2, the following requirements apply to all sizes:

Tensile Strength, psi	22,000 max
Elongation, % in 2 in. or 4D	18 min

- ∅ 6.1.1 Elongation requirements do not apply to material under 0.125 inch.
- 6.1.2 Tensile properties of material over 8.0 in. in diameter or distance between parallel sides shall be ∅ as agreed upon by purchaser and vendor.
- 6.2 Hardness: Material should have hardness not higher than Brinell 40 using 500 kg load and 10 mm ball or 1000 kg load and 9/16 in. ball, or not higher than Brinell 45 using 1000 kg load and 10 mm ball, but shall not be rejected on the basis of hardness if the tensile property requirements are met.

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