



# AEROSPACE MATERIAL SPECIFICATIONS

## AMS 4082F

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

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

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### ALUMINUM ALLOY TUBING, SEAMLESS, DRAWN 1.0Mg - 0.60Si - 0.30Cu - 0.20Cr (6061-T6)

- 1. ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
- 2. APPLICATION:** Primarily for parts and assemblies, such as brackets, conduits, and low pressure liquid lines, where high strength is required.

**3. 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	

- 4. CONDITION:** Solution and precipitation heat treated.
- 5. TECHNICAL REQUIREMENTS:** The product shall conform to the following requirements; tensile ∅ properties shall be determined in accordance with the latest issue of AMS 2355.
  - 5.1 Tensile Properties:** The following requirements apply to tubing having a nominal wall thickness of 0.025 to 0.500 in., inclusive:

∅	Nominal Wall Thickness Inch	Tensile Strength psi, min	Yield Strength at 0.2% Offset or at Extension Indicated (E = 9,900,000)		Elongation % in 2 in. or 4D, min	
			psi, min	Extension Under Load in. in 2 in.	Strip	Full Section
	0.025 to 0.049, incl	42,000	35,000	0.0111	8	10
	Over 0.049 to 0.259, incl	42,000	35,000	0.0111	10	12
	Over 0.259 to 0.500, incl	42,000	35,000	0.0111	12	14

- 5.1.1** When a dispute occurs between purchaser and vendor over the yield strength values, yield strength determined by the offset method shall apply.
  - 5.1.2** Tensile properties shall be as agreed upon by purchaser and vendor for tubing having nominal wall ∅ thickness under 0.025 inch.

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