AEROSPACE
MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York, N.Y. 10017

AMS 4082F

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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.