

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 4156B

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ALUMINUM ALLOY EXTRUSIONS
0.65Mg - 0.4Si (6063-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. APPLICATION: Primarily for hinges, trim strips, window frames, sills, and moldings where good surface finish is required. Also may be used to advantage for hollow, partially enclosed, and intricate shapes for which an alloy having good extruding characteristics is required.

4. COMPOSITION:

Magnesium	0.45 - 0.9
Silicon	0.20 - 0.6
Iron	0.35 max
Chromium	0.10 max
Manganese	0.10 max
Titanium	0.10 max
Copper	0.10 max
Zinc	0.10 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	remainder

5. CONDITION: Solution and precipitation heat treated.

- 5.1 Unless otherwise specified, extrusions shall be supplied with an as-extruded surface finish; light polishing to remove minor surface imperfections is permissible provided such imperfections can be removed within the dimensional requirements.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

Nominal Diameter or Least 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.	
Under 0.125	30,000	25,000	0.0091	8
0.125 to 0.500, incl	30,000	25,000	0.0091	10

- 6.1.1 For material of such thickness that a standard specimen cannot be taken, or for material thinner than 0.062 in., the test for elongation is not required.

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