

# AERONAUTICAL MATERIAL SPECIFICATIONS

## AMS 4015D

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

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### ALUMINUM ALLOY SHEET AND PLATE 2.5Mg - 0.25Cr (5052-0)

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 formed parts where welding, moderate strength, and good resistance to corrosion are required.

3. COMPOSITION:

Magnesium	2.2 - 2.8
Chromium	0.15 - 0.35
Iron + Silicon	0.45 max
Zinc	0.20 max
∅ Manganese	0.10 max
Copper	0.10 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	remainder

4. CONDITION: Annealed and, unless otherwise specified, mill finish.

5. TECHNICAL REQUIREMENTS:

- 5.1 Tensile Properties: Test specimens shall conform to ASTM E8-54T except from sheet less than 3/4 in. wide. Elongation requirements apply only to sheet 3/4 in. and over in width.

Nominal Thickness Inches	Tensile Strength psi, max	Elongation % in 2 in., min
0.006 to 0.008, excl	31,000	--
0.008 to 0.019, incl	31,000	15
Over 0.019 to 0.031, incl	31,000	18
Over 0.031 to 0.249, incl	31,000	20
Over 0.249 to 3.000, incl	31,000	18

- 5.2 Bending: Material 0.249 in. and under in thickness shall be capable of withstanding, without cracking, bending at room temperature flat on itself with axis of bend parallel to direction of rolling.

6. QUALITY: Material shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to fabrication or to performance of parts.

7. TOLERANCES: Unless otherwise specified, tolerances shall conform to the latest issue of AS 2202 as applicable. Thickness tolerances shall conform to Table II.

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