

AERONAUTICAL

MATERIAL SPECIFICATIONS

AMS 4375B

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York 17, N.Y.

Issued 7-1-47

Revised 8-15-58

MAGNESIUM ALLOY SHEET AND PLATE AZ31B-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 parts requiring rigidity, low strength, and low density. Special care is necessary to prevent corrosion.

3. COMPOSITION:

Aluminum	2.5 - 3.5
Zinc	0.7 - 1.3
Manganese	0.20 min
Silicon	0.10 max
Copper	0.05 max
Calcium	0.04 max
Nickel	0.005 max
Iron	0.005 max
Other Impurities, total	0.30 max
Magnesium	remainder

4. CONDITION: Annealed, recrystallized.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Properties: Material shall conform to the following requirements. Test specimens shall conform to ASTM E8-54T except from sheet less than 3/4 in. wide, and shall be cut parallel to the direction of rolling. Elongation requirements apply only to sheet 3/4 in. and over in width.

Nominal Thickness Inches	Tensile Strength psi	Elongation % in 2 in., min
0.016 to 0.500, incl	32,000 - 40,000	12
over 0.500 to 2.000, incl	30,000 - 40,000	10

6. QUALITY: Material shall be uniform in quality and condition, clean, sound, smooth, 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 AMS 2202 as applicable. Thickness tolerances shall conform to Table II.