

CANCELLED

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 4370A

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MAGNESIUM ALLOY SHEET

MLA-0

Annealed

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 low strength parts requiring rigidity, hot formability and good weldability.
3. COMPOSITION:

Manganese	1.2 min
Silicon	0.30 max
Calcium	0.14 max
Copper	0.05 max
Nickel	0.01 max
Total Other Impurities	0.30 max
Magnesium	remainder

4. CONDITION: Annealed.

5. TECHNICAL REQUIREMENTS:

- 5.1 Tensile Properties: Sheet shall conform to the following requirements. Test specimens shall conform to ASTM E8 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. or over in width.

Nominal Thickness Inches	Tensile Strength psi, max	Elongation % in 2 in., min
0.020 - 0.250, incl	38,000	12

6. QUALITY: Material shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.
7. TOLERANCES: Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2212 as applicable.
8. REPORTS:

- 8.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a report stating that the chemical composition and tensile properties of the product conform to the requirements specified. This report shall include the purchase order number, material specification number, thickness, size, and quantity. When material is government source inspected, reports will not be required.

Section 7C of the SAE Technical Board rules provides that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by any one is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report in formulating and absorbing technical reports. The Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against infringement of patents."



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- 8.2 Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a report showing the purchase order number, material specification number, contractor or other direct supplier of material, part number, and quantity. When material for making parts is produced or purchased by the parts vendor, that vendor shall inspect each lot of material to determine conformance to the requirements of this specification, and shall include in the report a statement that the material conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.
9. IDENTIFICATION: Unless otherwise specified, each sheet shall be marked, in the respective location indicated below, with the manufacturer's identification, and, in addition, the alloy name or number and temper, or AMS 4370, and nominal thickness in inches. The characters shall be not less than 3/8 in. in height, shall be applied using a suitable marking fluid, and shall not be obliterated by normal handling or heat treatment.
- 9.1 Flat Sheet: The alloy name or number and temper, or AMS 4370, shall be marked in rows of recurring characters from one edge to the opposite edge with rows spaced such that no piece larger than 8 in. square could be cut from the sheet without bearing the alloy identification. The manufacturer's identification and thickness shall be marked in rows not more than 20 in. apart.
- 9.2 Coiled Sheet: Shall be marked near the outside end of the coil.
10. PROTECTIVE TREATMENT: Unless otherwise specified, sheet shall be oiled, prior to shipment, with a light corrosion-inhibiting oil.
11. REJECTIONS: Material not conforming to this specification or to authorized modifications will be subject to rejection.
- NOTE. SIMILAR SPECIFICATIONS: (a) This specification meets the minimum requirements of Federal QQ-M-54, Condition A, dated September 3, 1948.
- (b) Federal QQ-M-54, MIA, is listed for information only and shall not be construed as an acceptable alternate unless all requirements of this AMS are met.