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Revised

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AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

29 West 39th Street

New York City

AMS

4016

ALUMINUM ALLOY SHEET

Magnesium Chromium (1/4 Hard)

1. **ACKNOWLEDGMENT:** A vendor must mention this specification number and its last revision in all quotations and when acknowledging purchase orders.

2. **COMPOSITION:**
- | | |
|-------------------------|-------------|
| Magnesium | 2.2 - 2.8 |
| Chromium | 0.15 - 0.35 |
| Manganese | 0.10 max |
| Copper | 0.10 max |
| Zinc | 0.03 max |
| Iron and Silicon, Total | 0.45 max |
| Total Other Impurities | 0.10 max |
| Other Impurities, each | 0.03 max |
| Aluminum | remainder |

3. **CONDITION:** (a) Quarter-hard conforming to the following minimum physical properties when test pieces are cut parallel to the direction of rolling:

Thickness, inches	Tensile Strength, lb per sq in.	Elongation, % in 2 in.		Bend Factor
		Sheet	Strip	
0.249 - 0.114	31,000	10	9	3
0.113 - 0.051	31,000	8	7	2
0.050 - 0.020	31,000	6	5	1
0.019 - 0.013	31,000	5	4	0

(b) The material shall not crack when cold bent to 180 deg. over a diameter equal to the bend factor times the thickness, with the axis of the bend parallel to the direction of rolling.

4. **QUALITY:** The material shall be uniform in quality and temper, straight, flat, clean and smooth, free from seams, laminations, blisters and other defects. Material revealing defects during fabrication is subject to rejection.
5. **TOLERANCE:** The following variations in thickness are permissible for widths 36" and less. All dimensions are in inches:

Thickness	Tolerance, plus or minus
0.249 - 0.126	4% of thickness
0.125 - 0.092	0.0045
0.091 - 0.051	0.003
0.050 - 0.025	0.0025
0.024 - 0.016	0.002
0.015 - 0.010	0.0015

6. **REPORTS:** The manufacturer shall furnish three copies of a certified report stating that the material is within the chemical requirements. This report shall include the purchase order number, material specification number, size, and quantity. If parts are supplied, the part number shall also be included.