

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 4058

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

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Revised

ALUMINUM ALLOY SHEET 4.5Mg - 0.65Mn - 0.15Cr (5083-H34)

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Primarily for parts requiring little forming, and where welding and good resistance to corrosion is important. Excessive cold work, or prolonged heating in the temperature range of 150 - 300 F may cause susceptibility to stress corrosion.

3. COMPOSITION:

Magnesium	4.0 - 4.9
Manganese	0.30 - 1.0
Chromium	0.05 - 0.25
Iron	0.40 max
Silicon	0.40 max
Zinc	0.25 max
Titanium	0.15 max
Copper	0.10 max
Other Impurities, each	0.05 max
Other Impurities, total	0.15 max
Aluminum	remainder

4. **CONDITION:** Half-hard and, unless otherwise specified, mill finish.

5. TECHNICAL REQUIREMENTS:

- 5.1 **Tensile Properties:** Test specimens shall conform to ASTM E8-57T 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 Inch	Tensile Strength psi	Yield Strength at 0.2% Offset or at Extension Indicated (E = 10,200,000)		Elongation % in 2 in. min
		psi, min	Extension Under Load in. in 2 in.	
0.050 to 0.125, incl	50,000 - 57,000	39,000	0.0116	6
Over 0.125 to 0.249, incl	50,000 - 57,000	39,000	0.0116	8

- 5.1.1 When a dispute occurs between purchaser and vendor over the yield strength value, yield strength determined by the offset method shall apply.

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