



AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N. Y. 10017

AMS 4058B

Superseding AMS 4058A

Issued 1-15-60

Revised 9-30-66

ALUMINUM ALLOY SHEET AND PLATE

4.5Mg - 0.65Mn - 0.15Cr (5083-H343)

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 little forming and where welding and good resistance to corrosion are important. Excessive cold work or prolonged heating in the temperature range of 150 - 300 F (66 - 149 C) may cause susceptibility to stress corrosion.

3. **COMPOSITION:**

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

4. **CONDITION:** Strain-hardened half hard and then stabilized.
5. **TECHNICAL REQUIREMENTS:** The product shall conform to the following requirements; tensile properties shall be determined in accordance with the latest issue of AMS 2355.

5.1 **Tensile Properties:**

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	Extension Under Load in. in 2 in.	
0.051 to 0.125, incl	50,000 - 59,000	39,000 - 49,000	0.0116 - 0.0136	6
Over 0.125 to 0.249, incl	50,000 - 59,000	39,000 - 49,000	0.0116 - 0.0136	8

- 5.1.1 When a dispute occurs between purchaser and vendor over the yield strength values, yield strength determined by the offset method shall apply.
- 5.1.2 If sizes other than those shown are ordered, tensile property requirements shall be as agreed upon by purchaser and vendor.
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.