

AEROSPACE

MATERIAL SPECIFICATIONS

AMS 4008c

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

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ALUMINUM ALLOY SHEET AND PLATE

1.25Mn (3003-H14)

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 where moderately severe forming or spinning is required.

3. COMPOSITION:

	min	max
Manganese	1.0	1.5
Iron	--	0.7
Silicon	--	0.6
∅ Copper	--	0.20
Zinc	--	0.10
Other Elements, each	--	0.05
Other Elements, total	--	0.15
Aluminum	remainder	

∅ 4. CONDITION: Strain hardened, half-hard and, unless otherwise specified, mill finish.

∅ 5. TECHNICAL REQUIREMENTS: When ASTM methods are specified for determining conformance to the following requirements, tests shall be conducted in accordance with the issue of the ASTM method listed in the latest issue of AMS 2350.

∅ 5.1 Tensile Properties: Test specimens shall conform to ASTM E8 and shall be taken parallel to the direction of rolling. Sheet type specimens shall be used for material less than 0.5 in. thick and 0.75 in. and over in width. Round specimens shall be used for material 0.5 in. and over in thickness and 0.75 in. and over in width. Material under 0.75 in. wide and under 0.5 in. thick may be tested in either full section or by use of round specimens; for such sizes, elongation requirements apply only when round specimens are used.

Nominal Thickness Inch	Tensile Strength		Elongation % in 2 in. or 4D, min
	psi, min	psi, max	
0.009 to 0.012, incl	20,000	26,000	1
Over 0.012 to 0.019, incl	20,000	26,000	2
Over 0.019 to 0.031, incl	20,000	26,000	3
Over 0.031 to 0.050, incl	20,000	26,000	4
Over 0.050 to 0.113, incl	20,000	26,000	5
Over 0.113 to 0.161, incl	20,000	26,000	6
Over 0.161 to 0.249, incl	20,000	26,000	7
Over 0.249 to 0.499, incl	20,000	26,000	8
Over 0.499 to 1.000, incl	20,000	26,000	10

5.2 Bending: Material shall be capable of withstanding, without cracking, bending at room temperature through an angle of 180 deg around a diameter equal to the bend factor times the nominal thickness of the material, with the axis of bend parallel to direction of rolling.

Nominal Thickness Inch	Bend Factor
0.009 to 0.113, incl	0
Over 0.113 to 0.249, incl	2

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 all applicable requirements of the latest issue of AMS 2202.

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 product conforms to the chemical composition and technical requirements of this specification. This report shall include the purchase order number, material specification number, thickness, size, and quantity.

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.