

# AERONAUTICAL MATERIAL SPECIFICATION

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

## AMS5044 C

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### STEEL SHEET AND STRIP Low Carbon Half Hard Temper

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 stamped parts and for parts requiring bending normal to the direction of rolling.
3. **COMPOSITION:**

		Check Analysis	
		Under Min or Over	Max
Carbon	0.15 max	--	0.03
Manganese	0.25 - 0.60	0.03	0.03
Phosphorus	0.040 max	--	0.01
Sulphur	0.050 max	--	0.01

4. **CONDITION:** Cold rolled and oiled.

5. **TECHNICAL REQUIREMENTS:**

- 5.1 **Hardness:** Rockwell B 75-85 or equivalent.

- 5.1.1 Acceptability of material 0.054 in. and under in thickness shall be based on conformance to one of the following requirements as applicable:

Nominal Thickness Inch	Hardness (Equivalent to Rockwell B 75-85)
0.009 to 0.017, incl	Rockwell Superficial 15T 85-89
Over 0.017 to 0.032, incl	Rockwell Superficial 30T 67-74
Over 0.032 to 0.054, incl	Rockwell F 99-105

- 5.2 **Bending:** Material shall withstand, without cracking, bending at room temperature through an angle of 90 degrees around a diameter equal to twice the nominal thickness of the material with axis of bend perpendicular to direction of rolling.

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 2232 as applicable.

8. **REPORTS:**

- 8.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a report of the results of tests for chemical composition. This report shall include the purchase order number, material specification number, thickness, size, and quantity.

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