



# AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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## AMS 5044D

Superseding AMS 5044C

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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 only normal to the direction of rolling.
3. COMPOSITION:

|            | min    | max   |
|------------|--------|-------|
| Carbon     | --     | 0.15  |
| Manganese  | 0.25 - | 0.60  |
| Phosphorus | --     | 0.040 |
| Sulfur     | --     | 0.050 |

- 3.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of  
Ø AMS 2259, paragraph titled "Carbon Steels, Sheet, Strip, Plate, and Flat Wire."

- Ø 4. CONDITION: Cold rolled.

5. TECHNICAL REQUIREMENTS:

- 5.1 Hardness: Shall be 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<br>Inch | Hardness<br>(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 deg 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, 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 2232.

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