

# AERONAUTICAL MATERIAL SPECIFICATION

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

## AMS5045B

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### STEEL SHEET AND STRIP Low Carbon 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 where strength, imparted by cold rolling, rather than ductility is required.
3. **COMPOSITION:**

Check Analysis  
Under Min or Over Max

Carbon	0.25 max	--	0.04
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:**

Nominal Thickness Inch	Hardness
0.069 and under	Rockwell B 90-102
Over 0.069	Rockwell B 84- 96

- 5.1.1 Acceptability of material 0.037 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 90-102)
0.006 to 0.013, incl	Rockwell Superficial 15T 90-94
Over 0.013 to 0.037, incl	Rockwell Superficial 30T 76-83

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.

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