

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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## AMS 5120 D

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STEEL STRIP  
0.68-0.80C (SAE 107L)

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 heat treated springs, spring pins, shims, spacers and other applications where spring temper is required.
3. COMPOSITION:

		Check Analysis	
		Under Min	or Over Max

Ø	Carbon	0.68 - 0.80	0.03	0.05
	Manganese	0.40 - 0.80	0.04	0.04
	Phosphorus	0.04 max	--	0.01
	Sulphur	0.05 max	--	0.01

4. CONDITION: Cold-rolled and annealed in thicknesses of 1/16 in. and under, and either cold or hot-rolled and annealed, as specified, in thickness over 1/16 inch.
5. TECHNICAL REQUIREMENTS:
  - 5.1 Hardness: Not higher than Rockwell B 85 or equivalent.
  - 5.2 Bending: Material shall withstand, without cracking, bending at room temperature through an angle of 180 degrees around a diameter equal to the nominal thickness of the material, with axis of bend perpendicular to the direction of rolling; and around a diameter equal to twice the nominal thickness of the material, with axis of bend parallel to the direction of rolling.
  - 5.3 Decarburization: Material shall be free from complete decarburization as determined microscopically, and free from partial decarburization to the extent that the increase in hardness from the surface to the point of maximum subsurface hardness of an oil hardened specimen will be not more than two points on the Rockwell Superficial 30-N scale.
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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