

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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## AMS 5080C

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### STEEL 0.32-0.38C (SAE 1035)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Bars, forgings, forging stock, and mechanical tubing.
3. COMPOSITION:

		Check Analysis	
		Under Min	or Over Max
Carbon	0.32 - 0.38	0.03	0.03
Manganese	0.60 - 0.90	0.03	0.03
Silicon	0.15 - 0.30	0.02	0.02
Phosphorus	0.040 max	--	0.008
Sulfur	0.050 max	--	0.008

- 3.1 When permitted by purchaser, carbon may be as high as 0.44.

4. CONDITION:

- 4.1 Bars: In a machinable condition having hardness not higher than Brinell 229 or equivalent, except that, if ordered cold finished, hardness may be as high as Brinell 241 or equivalent.
- 4.2 Tubing: In a machinable condition.
- 4.3 Forgings: As ordered.
- 4.4 Forging Stock: As ordered by the forging manufacturer.

5. QUALITY: Material shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.

6. TOLERANCES: Unless otherwise specified, tolerances shall conform to the following:

- 6.1 Bars: The latest issue of AMS 2231 as applicable. Diameter or thickness tolerances for cold finished bars and all hexagons shall conform to Table I, column headed "Over 0.28 to 0.55 incl."
- 6.2 Tubing: The latest issue of AMS 2253 as applicable to Mechanical Type.

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