



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5685D

Superseding AMS 5685C

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STEEL WIRE, CORROSION RESISTANT
18Cr - 11.5Ni (SAE 30305)
Solution Heat Treated

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 safety wire.
3. COMPOSITION:

	min	max
Carbon	--	0.08
Manganese	--	2.00
Ø Silicon	--	1.00
Phosphorus	--	0.040
Sulfur	--	0.030
Chromium	17.00	19.00
Nickel	10.00	13.00
Molybdenum		0.50
Copper	--	0.50

- 3.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2248.
4. CONDITION: Unless otherwise specified, solution heat treated and cold finished. Wire shall be supplied in coils, on spools, or in cut lengths, as ordered.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Properties:

		Tensile Strength psi, max
Coiled Wire		110,000
Straight Lengths		120,000

- 5.2 Bending: Wire shall withstand, without cracking, bending at room temperature flat on itself.

6. QUALITY:

- 6.1 Wire shall be uniform in quality and condition, clean, sound, and free from kinks, twists, scrapes, splits, cold shuts, and other injurious imperfections.
 - 6.2 The surface shall have a bright, smooth finish, free from pits, abrasions, and other surface imperfections.
7. TOLERANCES: Unless otherwise specified, tolerances shall conform to all applicable requirements of the latest issue of AMS 2241.

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