

# AERONAUTICAL MATERIAL SPECIFICATION

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

## AMS 5697

Issued 11-1-54

Revised

STEEL WIRE, CORROSION RESISTANT  
19Cr - 9Ni (SAE 30304)  
Solution Treated

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for braiding wire.
3. COMPOSITION:

		Check Analysis	
		Under Min	or Over Max
Carbon	0.08 max	--	0.01
Manganese	2.00 max	--	0.04
Silicon	1.00 max	--	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	18.0 - 20.0	0.20	0.20
Nickel	8.0 - 11.0	0.15	0.15
Molybdenum	0.50 max	--	0.03
Copper	0.50 max	--	0.03

4. CONDITION: Cold drawn, solution heat treated, and scale free.

5. TECHNICAL REQUIREMENTS:

- 5.1 Tensile Properties:

Tensile Strength, psi	90,000-125,000
Elongation, % in 2 in.	35 min

- 5.2 Wrapping: Wire shall withstand, without cracking, wrapping at room temperature five full, closely spaced turns around a diameter equal to the nominal diameter of the wire.

6. QUALITY:

- 6.1 Material shall be uniform in quality and condition, cylindrical, clean, and free from kinks, twists, scrapes, splits, cold shuts, and other injurious defects.
- 6.2 The surface shall have a bright, smooth finish, free from pits, abrasions, and other surface imperfections.

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