

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

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New York City

AMS 4730A

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## NICKEL-COPPER ALLOY WIRE, CORROSION RESISTANT

67Ni - 30Cu

Annealed

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 woven wire cloth and screen, lockwire and rivets.

3. COMPOSITION:

Nickel + Cobalt	63.00 - 70.00
Iron	2.50 max
Manganese	2.00 max
Cobalt, if determined	1.00 max
Silicon	0.50 max
Aluminum	0.50 max
Carbon	0.30 max
Sulfur	0.02 max
Copper	remainder

4. CONDITION: Cold-drawn and annealed, unless otherwise specified.

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Strength: Wire shall have tensile strength of 70,000 - 85,000 psi.

5.2 Bending: Wire shall withstand, without cracking, bending at room temperature through an angle of 180 degrees around a diameter equal to the nominal diameter of the wire.

6. QUALITY: Wire 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 be as follows:

7.1 Diameter:

Nominal Diameter Inch	Tolerance, Inch Plus and Minus
0.0044 and under	0.0002
Over 0.0044 - 0.0079, incl	0.00025
Over 0.0079 - 0.0149, incl	0.0003
Over 0.0149 - 0.0199, incl	0.0004
Over 0.0199 - 0.0310, incl	0.0005
Over 0.0310 - 0.045, incl	0.0006
Over 0.045 - 0.079, incl	0.0007
Over 0.079 - 0.155, incl	0.001
Over 0.155 - 0.249, incl	0.0015
Over 0.249 - 0.499, incl	0.002