

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 4730B

Issued 5-1-48

Revised 5-1-54

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	63.0 - 70.0
	Iron	2.5 max
Ø	Manganese	2.0 max
	Cobalt, if determined	1.0 max
	Silicon	0.5 max
	Carbon	0.30 max
	Sulfur	0.024 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 deg around a diameter equal to the nominal diameter of the wire.
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 be as follows:
 - 7.1 Diameter:

	Nominal Diameter Inch	Tolerance, Inch Plus and Minus
	Under 0.0044	0.0002
	0.0044 to 0.0079, incl	0.00025
Ø	Over 0.0079 to 0.0149, incl	0.0003
	Over 0.0149 to 0.0199, incl	0.0004
	Over 0.0199 to 0.0310, incl	0.0005
	Over 0.0310 to 0.045, incl	0.0006
	Over 0.045 to 0.079, incl	0.0007
	Over 0.079 to 0.1875, incl	0.001
	Over 0.1875 to 0.406, incl	0.0015
	Over 0.406	0.002

Section 7C of the SAE Technical Board rules provides that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."