

# AERONAUTICAL MATERIAL SPECIFICATIONS

## AMS 5687C

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

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ALLOY WIRE, CORROSION AND HEAT RESISTANT  
Nickel Base - 15.5Cr - 8Fe  
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 lock wire and wire cloth requiring oxidation  $\emptyset$  resistance superior to that of the 18-8 type of steel.
3. COMPOSITION:

Carbon	0.06	max
Manganese	1.0	max
Silicon	0.50	max
Sulfur	0.015	max
Chromium	14.0 - 17.0	
Nickel + Cobalt	72.0	min
Cobalt, if determined	1.0	max
Iron	6.0 - 10.0	
Copper	0.50	max

4. CONDITION: Cold-drawn from hot finished wire or rod, and annealed, and descaled  $\emptyset$  if necessary, unless otherwise specified.

4.1 Wire shall be supplied in coils or on spools, unless otherwise ordered.

5. TECHNICAL REQUIREMENTS:

- 5.1 Tensile Properties:

Nominal Diameter Inch	Tensile Strength, psi, max	
	Coils or Spools	Straight Lengths
$\emptyset$ 0.002 to 0.015, incl	130,000	--
Over 0.015 to 0.040, incl	115,000	--
Over 0.040	110,000	125,000

- 5.2 Wrapping: Wire shall withstand, without cracking, wrapping at room temperature five full, closely spaced turns around a diameter equal to the 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 imperfections detrimental to fabrication or to performance of parts.

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