AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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New York City

AMS 5687 A

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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 requiring oxidation resistance superior to that of the 18-8 type of steel.

3. COMPOSITION:

Carbon	0.15 max
Manganese	1.00 max
Silicon	0.50 max
Sulfur	0.015 max
Chromium	14.00 - 17.00
Nickel + Cobalt	72.00 min
Cobalt, if determined	1.00 max
Iron	6.00 - 10.00
Copper	0.50 max

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

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

5. TECHNICAL REQUIREMENTS:

5.1 Tensile Strength:

Nominal Diameter Inch	Tensile Strength, psi	
	Coils	Straight Lengths
Under 0.032	115,000 max	130,000 max
0.032 and over	105,000 max	120,000 max

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 defects detrimental to fabrication or to performance of parts.