

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4544

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Revised

NICKEL-COPPER ALLOY SHEET AND STRIP, CORROSION RESISTANT 67Ni - 30Cu Annealed

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. **FORM:** Sheet and strip.

3. **APPLICATION:** Primarily for formed or moderately drawn parts, such as fuel and oil system components, requiring corrosion resistance.

4. **COMPOSITION:**

Nickel	63.00 - 70.00
Iron	2.50 max
Manganese	2.00 max
Silicon	0.50 max
Aluminum	0.50 max
Carbon	0.30 max
Sulfur	0.02 max
Copper	remainder

5. **CONDITION:** Cold-rolled and annealed, unless otherwise specified.

6. **TECHNICAL REQUIREMENTS:**

6.1 **Physical Properties:**

Tensile Strength, psi	70,000 - 85,000
Elongation, % in 2 in.	35 min
Hardness, Rockwell	B73 max

6.2 **Bending:** Material 0.250 in. and less in thickness shall withstand, without cracking, bending at room temperature, through an angle of 180 degrees around a diameter equal to the nominal thickness of the material, with axes of bends both perpendicular and parallel to the direction of rolling.

7. **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.

8. **TOLERANCES:** Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2262 as applicable.

9. **REPORTS:**

9.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a notarized report of the results of tests to determine conformance to the requirements of this specification or stating that the chemical composition and physical properties of the product conform to the requirements specified. This report shall include the purchase order number, material specification number, size, and quantity.