

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 5682A

Issued 3-1-42

Revised 6-1-51

COATING ALLOY Nickel Base - 20Cr

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **FORM:** Rods, wire, or as ordered.
3. **APPLICATION:** Primarily as a corrosion resisting coating, but may be used for other purposes when applicable.
4. **COMPOSITION:**

Carbon	0.15 - 0.30
Manganese	0.60 - 1.00
Iron	1.00 max
Silicon	0.30 max
Sulfur	0.03 max
Chromium	19.00 - 21.00
Nickel	Remainder
5. **CONDITION:** Hot rolled or cold drawn with a clean surface free from oxidation.
6. **TECHNICAL REQUIREMENTS:** Material shall melt quickly and flow freely under the oxy-acetylene flame without bubbling or boiling so as to produce an adherent deposit free from porosity due to blowholes, gas cavities or slag inclusions.
7. **QUALITY:** Material shall be uniform in quality and condition, clean, and free from foreign materials and from internal and external defects detrimental to use.
8. **TOLERANCES:** Unless otherwise specified, diameter shall not vary more than plus 0.001 in. and minus 0.003 in. from the size ordered.
9. **REPORTS:**
 - 9.1 Unless otherwise specified, the vendor of material shall furnish with each shipment three copies of a report of the results of tests for chemical composition of each heat in the shipment. This report shall include the purchase order number, heat number, material specification number, size, and quantity from each heat.
 - 9.2 Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a report showing the purchase order number, material specification number, contractor or direct supplier of material, part number, and quantity. When material for making parts is produced or purchased by the parts vendor, that vendor shall inspect each lot of material to determine conformance to the requirements of this specification, and shall include in the report a statement that the material conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.