

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5676

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Revised

ALLOY WIRE, CORROSION AND HEAT RESISTANT Nickel Base - 20Cr

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for use as bare wire filler metal for inert gas shielded tungsten arc welding of thicknesses of approximately 0.125 in. or less.
3. COMPOSITION:

Carbon	0.08 - 0.15
Manganese	1.0 max
Silicon	0.30 max
Sulfur	0.015 max
Chromium	19.0 - 21.0
Nickel + Cobalt	75.0 min
Cobalt, if determined	1.0 max
Iron	2.0 max
4. CONDITION: Cold drawn, unless otherwise ordered.
5. TECHNICAL REQUIREMENTS: Melted wire shall flow smoothly and evenly during welding and shall be capable of producing acceptable welds.
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 its use for welding purposes.
7. TOLERANCES:
 - 7.1 Unless otherwise specified, straight lengths shall not vary in length more than plus and minus 1/4 in. from the length ordered.
 - 7.2 Unless otherwise specified, diameter of the wire shall not vary more than plus 0.001 in. and minus 0.003 in. from the size ordered.
8. REPORTS:
 - 8.1 Unless otherwise specified, the vendor of the product 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.

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