AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5794 A

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ALLOY WIRE, CORROSION AND HEAT RESISTANT
Iron Base - 20Cr - 20Ni - 20Co - 3Mo - 2W - 1(Cb+Ta)

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 use as bare wire filler metal for welding.

3. COMPOSITION:

		Check Analysis	
		Under Min or	Over Max
Carbon	0.10 max	--	0.01
Manganese	1.00 - 2.00	0.04	0.04
Silicon	1.00 max	--	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	20.00 - 22.50	0.25	0.25
Nickel	19.00 - 21.00	0.20	0.20
Cobalt	18.50 - 21.00	0.20	0.20
Molybdenum	2.50 - 3.50	0.10	0.10
Tungsten	2.00 - 3.00	0.10	0.10
Columbium + Tantalum	0.75 - 1.25	0.05	0.05
Nitrogen	0.10 - 0.20	0.01	0.01
Iron	Remainder	--	--

4. CONDITION: Annealed and pickled, unless otherwise ordered.

5. TECHNICAL REQUIREMENT: 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 and minus 0.002 in. from the size ordered.

8. REPORTS:

8.1 Unless otherwise specified, the vendor of wire 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.