



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N. Y. 1000

AMS 5798A
Superseding AMS 5798

Issued 4-15-58
Revised 11-1-68

ALLOY WIRE, CORROSION AND HEAT RESISTANT
Nickel Base - 22Cr - 1.5Co - 9.0Mo - 0.60W - 18.5Fe

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 inert gas metal and tungsten arc welding of similar or dissimilar corrosion and heat resistant steels or alloys.
3. **COMPOSITION:**

	min	max
Carbon	0.05	- 0.15
Manganese	--	1.00
Silicon	--	1.00
Phosphorus	--	0.040
Sulfur	--	0.030
Chromium	20.50	- 23.00
Cobalt	0.50	- 2.50
Molybdenum	8.00	- 10.00
Tungsten	0.20	- 1.00
Iron	17.00	- 20.00
Boron	--	0.010
Nickel	remainder	

3.1 **Check Analysis:** Composition variations shall meet the requirements of the latest issue of AMS 2269.

4. **CONDITION:**

- 4.1 Unless otherwise specified, wire shall be cold drawn, bright finish, as drawn temper. Wire shall be furnished on disposable spools for machine welding and in cut lengths for manual welding, as ordered.
- 4.2 Drawing compounds, oxides, and dirt shall be removed.
 - 4.2.1 If pickling is necessary to remove surface contamination or scaling, only a light pickle shall be used.

5. **TECHNICAL REQUIREMENTS:**

- 5.1 **Welding:** Melted wire shall flow smoothly and evenly during welding and be capable of producing acceptable welds.
- 5.2 **Spooled Wire:** Shall conform to the following, unless otherwise agreed upon by purchaser and vendor.
 - 5.2.1 **Cast:** Wire shall have imparted to it a curvature such that a specimen sufficient in length to form one loop, when cut from the spool and laid on a flat surface, shall form a circle not less than 15 in. and not greater than 30 in. in diameter.

SAE Technical Board rules provide that: "All technical reports, including standards, specifications, and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against infringement of patents."