



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 10001

AMS 5824

Issued 11/1/69
Revised

STEEL WIRE, WELDING, CORROSION RESISTANT
17Cr - 7.1Ni - 1.0Al

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for use as filler metal for inert gas arc welding of precipitation hardening corrosion resistant steel parts fabricated from material of similar composition.
3. COMPOSITION:

	min	max
Carbon	--	0.09
Manganese	--	1.00
Silicon	--	0.50
Phosphorus	--	0.025
Sulphur	--	0.025
Chromium	16.00 - 17.25	
Nickel	6.50 - 7.75	
Aluminum	0.75 - 1.25	

- 3.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2248.

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 or 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 shall 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.
 - 5.2.2 Helix: The specimen on which cast was determined, when laid on a flat surface and measured between adjacent turns, shall show a vertical separation not greater than 1 inch.

SAE Technical Board rules provide that: "All technical reports, including standards applications, 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 liability for infringement of patents."