



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5824

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Revised

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

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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.