



AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N. Y. 10017

AMS 5804B

Superseding AMS 5804A

Issued 7-15-61

Revised 11-1-67

STEEL WIRE, WELDING, CORROSION AND HEAT RESISTANT

15Cr - 26Ni - 1.3Mo - 2.2Ti - 0.30V

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 filler metal for inert gas arc welding of precipitation hardening corrosion resistant steels of similar composition.

3. **COMPOSITION:**

	min	max
Carbon	--	0.08
Manganese	--	2.00
Silicon	--	1.00
Phosphorus	--	0.020
Sulfur	--	0.015
Chromium	13.50	16.00
Nickel	24.00	27.00
Molybdenum	1.00	1.50
Titanium	2.00	2.45
Boron	0.0030	0.010
Vanadium	0.10	0.50
Aluminum	--	0.35

- 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 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.