



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 6466A

Superseding AMS 6466

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STEEL WIRE, WELDING 5Cr - 0.55Mo

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 welding low alloy steels where response to heat treatment is required in the weld.
3. COMPOSITION:

	min	max
Carbon	--	0.10
Manganese	--	0.60
Silicon	0.25 -	0.60
Phosphorus	--	0.03
Sulfur	--	0.03
Chromium	4.50 -	6.00
Molybdenum	0.45 -	0.65
Nickel	--	0.60
Copper		0.35

- 3.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2259, paragraph titled "Low Alloy Steels."

4. CONDITION: Unless otherwise specified, wire shall be cold drawn, bright finish, as-drawn temper.
Ø Wire shall be furnished on disposable spools for machine welding and in cut lengths for manual welding operations, as ordered.

- Ø 4.1 Drawing compounds, oxides, and dirt shall be removed.

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.
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- 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.
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- 5.2.3 Layer Winding: Wire shall be closely wound in layers but adjacent turns within a layer need not necessarily be touching; shall be wound so as to avoid producing kinks, waves, and sharp bends; and shall be free to unwind without restriction caused by overlapping or wedging. The outside end of the spooled wire shall be so treated that it may be readily located.

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