



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4190B

Superseding AMS 4190A

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ALUMINUM ALLOY WIRE, WELDING 5.25Si (4043)

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 gas welding and gas-shielded arc welding.
3. COMPOSITION:

	min	max
Silicon	4.5	6.0
Iron	--	0.8
Copper	--	0.30
Titanium	--	0.20
Zinc	--	0.10
Manganese	--	0.05
Magnesium	--	0.05
Beryllium	--	0.0008
Other Impurities, each	--	0.05
Other Impurities, total	--	0.15
Aluminum	remainder	

4. CONDITION: As drawn, unless otherwise specified.
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 Winding: Wire shall be closely 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.
6. QUALITY: Wire shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to welding operations, operation of welding equipment, or properties of the deposited weld metal.
7. SIZES AND TOLERANCES: Unless otherwise specified, wire shall be supplied in the following sizes and to the tolerances shown.

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