



AEROSPACE MATERIAL SPECIFICATION

AMS 4397

Society of Automotive Engineers, Inc.
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Revised

MAGNESIUM WIRE, WELDING 14Li - 1.25Al (LA141A)

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 welding of magnesium alloys of similar composition.
3. COMPOSITION:

	min	max
Lithium	13.0	15.0
Aluminum	1.00	1.50
Manganese	--	0.15
Silicon	--	0.10
Copper	--	0.04
Nickel	--	0.005
Iron	--	0.005
Sodium	--	0.005
Other Impurities, total	--	0.30
Magnesium	remainder	

4. CONDITION:
 - 4.1 Unless otherwise specified, wire for cut lengths shall be extruded; for spooled wire, shall be extruded and sized. Wire shall be furnished on disposable spools for machine welding and in cut lengths for manual welding operations, as ordered.
 - 4.2 Extruding compounds, oxides, and dirt shall be removed.
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 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.
 - 5.2.2 Wire on each spool shall be in one continuous length.
6. QUALITY: Wire shall be uniform in quality and condition, clean, sound, and free from oil, seams, laps, segregation, inclusions, and other internal and external imperfections detrimental to welding operations, operation of welding equipment, or properties of the deposited weld metal.

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