

MATERIAL SPECIFICATIONS

AMS 4396

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Revised

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

MAGNESIUM WIRE, WELDING
3.3Ce - 2.5Zn - 0.7Zr (EZ33A)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for inert gas arc welding.
3. COMPOSITION:

Cerium (Total Rare Earths)	2.5 - 4.0
Zinc	2.0 - 3.1
Zirconium, total	0.45 - 1.0
Zirconium, soluble	0.45 min
Copper, if determined	0.10 max
Nickel, if determined	0.01 max
Other Impurities, total	0.30 max
Magnesium	remainder

- 3.1 Soluble zirconium is that portion of zirconium which is soluble in 1:4 hydrochloric acid held below its boiling point. Routine determinations for soluble zirconium are not required.

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, oxide, 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.