AEROSPACE
MATERIAL SPECIFICATIONS

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

AMS 4396

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Revised

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.