



AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N.Y. 10017

AMS 4387A

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MAGNESIUM ALLOY EXTRUSIONS 2.3Zn - 0.60Zr (ZK21A-F)

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
- ∅ 2. **FORM:** Bars, rods, wire, tubing, and shapes.
3. **APPLICATION:** Primarily for parts requiring good weldability and moderate strength and which do not require stress relief after welding.
4. **COMPOSITION:**

| | min | max |
|-------------------------|-----------|------|
| Zinc | 2.0 | 2.6 |
| Zirconium | 0.45 | 0.8 |
| Other Impurities, total | -- | 0.30 |
| Magnesium | remainder | |

5. **CONDITION:** As fabricated.

5.1 Unless otherwise specified, extrusions shall be supplied with an as-extruded surface finish; light polishing to remove minor surface imperfections is permissible provided such imperfections can be removed within the dimensional tolerances.

6. **TECHNICAL REQUIREMENTS:** The product shall conform to the following requirements; tensile ∅ properties shall be determined in accordance with the latest issue of AMS 2355.

- 6.1 **Tensile Properties:**

| | Tensile Strength psi, min | Yield Strength at 0.2% Offset or at Extension Indicated (E = 6,500,000) | | Elongation % in 2 in. or 4D, min |
|---|------------------------------|---|--------------------------------------|--|
| | | psi, min | Extension Under Load in. in 2 in. | |
| Bars, Rods, Wire, and Solid Shapes | | | | |
| Cross Sectional Area under 5 sq in. | 38,000 | 28,000 | 0.0126 | 4 |
| Tubing 3.000 in. and under in OD, and Hollow Shapes | 34,000 | 26,000 | 0.0120 | 4 |

- 6.1.1 When a dispute occurs between purchaser and vendor over the yield strength values, yield strength determined by the offset method shall apply.

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