



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.