AERONAUTICAL MATERIAL SPECIFICATIONS

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

AMS 4388

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Revised

MAGNESIUM ALLOY EXTRUSIONS
3Th - 1.5Mn (HM31A-F)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. FORM: Bars, rods, and shapes.

3. APPLICATION: Primarily for components requiring weldability and good strength to weight ratio up to 600 F.

4. COMPOSITION:

Thorium	2.5 - 3.5
Manganese	1.2 min
Other Impurities, each	0.10 max
Other Impurities, total	0.30 max
Magnesium	remainder

5. CONDITION: Unless otherwise specified, extrusions shall be furnished in the as-fabricated condition, and with an as-extruded finish.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

	Tensile Strength psi, min	Yield Strength at 0.2% Offset or at Extension Indicated (E = 6,500,000) psi, min	Extension Under Load in. in 2 in.	Elongation % in 2 in. min
Bars, Rods and Solid Shapes, Cross Sectional Area under 4 sq. in.	37,000	26,000	0.0120	4

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

6.1.2 If sizes other than those shown are ordered, tensile property requirements shall be as agreed upon by purchaser and vendor.

7. QUALITY: Material shall be uniform in quality and condition, clean, sound, smooth, and free from segregation and foreign materials and from internal and external imperfections detrimental to fabrication or to performance of parts.

8. TOLERANCE: Unless otherwise specified, tolerances shall conform to the latest issue of AMS 2205 as applicable.