AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 4350A

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WROUGHT MAGNESIUM ALLOY
Bars and Forgings
Aluminum Zinc

1. ACKNOWLEDGMENT: A vendor must mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. FORM: Extruded shapes, bars and forgings.

3. COMPOSITION:

Aluminum	5.8 - 7.2
Manganese	0.15 min
Zinc	0.4 - 1.5
Silicon	0.3 max
Copper	0.05 max
Nickel	0.005 max
Iron	0.005 max
Total Other Impurities	0.3 max
Magnesium	Remainder

4. CONDITION: (a) This material shall conform to the following minimum physical properties:

	Extruded Bars		Forgings
Cross Section	up to 1-1/2 in.	1-1/2 in and over	
Tensile Strength, lb. per sq. in.	40,000	38,000	38,000
Yield Strength, lb. per sq. in.	26,000	23,000	22,000
Elongation, % in 2 in.	12	10	6
Brinell, each piece	50	50	50

(b) A test specimen shall be taken from full size prolongations or it may be taken from the body of a forging. If forgings are unsuited to make a tensile specimen a coupon forged separately from the same lot of material may be used.

(c) The Brinell hardness on the forgings shall be not less than 50. Brinell hardness shall not be a cause for rejection in the case of extruded bars if the material complies with the specified tensile properties.

5. QUALITY: The bars and forgings shall be of uniform quality and condition, free from blisters, fins, seams, laps, cracks, segregations, or other defects which adversely affect their strength, use or machinability.

6. IDENTIFICATION: Unless otherwise specified, each bar or extrusion 5/8 inch in diameter, or equivalent, and over, shall be marked with the manufacturer's identification, and, in addition, the alloy name or number and this AMS number. The characters shall be not less than 1/8 inch in height and shall be applied continuously at intervals not exceeding 2 feet. The characters shall be clearly legible and applied to the material by suitable means and suitable marking fluid, and shall not be obliterated by normal handling. Bars or extrusions less than 5/8 inch in diameter may be identified by other means as agreed upon by the vendor and purchaser. Forgings shall have the manufacturer's identification marking and