

**MAGNESIUM ALLOY FORGINGS
AZ61X**

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 9-15-63. It is recommended that this specification not be specified for new designs.

This cover sheet should be attached to the "A" revision of the subject specification.

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of 7- 1-81. By this action, subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

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AEROSPACE MATERIAL SPECIFICATIONS

AMS4358A

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc

485 Lexington Avenue, New York 17, N.Y.

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MAGNESIUM ALLOY FORGINGS AZ61A

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1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Die forgings, hand forgings, and stock for forging.
3. APPLICATION: Primarily intended for applications where welding is required.
4. COMPOSITION:

Aluminum	5.8 - 7.2
Zinc	0.4 - 1.5
Manganese	0.15 min
Silicon	0.30 max
Copper	0.05 max
Nickel	0.005 max
Iron	0.005 max
Total Other Impurities	0.30 max
Magnesium	remainder
5. CONDITION: Die and Hand Forgings.- As forged, except that aging may be applied if desired.

(a) Die Forgings.-

⊕ (1) Tensile test specimens, machined from forgings, with the axis approximately parallel to the forging flow lines, or from prolongations on the forgings, shall conform to the following minimum physical properties:

Tensile Strength, psi	38,000
Yield Strength (0.2% Offset), psi	22,000
Equivalent Extension Under Load, inch in 2 in.	0.0108
Elongation, % in 4D	6

(2) Forgings and tensile test specimens shall have hardness not lower than Brinell 50, using 500 kg load and 10 mm ball, or the equivalent.

⊕ (3) When the size of the forging is such that tensile test specimens cannot be taken and the use of prolongations is impractical, the method of test shall be as agreed between purchaser and vendor.

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