



AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

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

AMS 4362A

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MAGNESIUM ALLOY FORGINGS 5.5Zn - 0.45Zr (ZK60A-T5)

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 forging stock.
3. **COMPOSITION:**

| | min | max |
|-------------------------|-----------|------|
| Zinc | 4.8 | 6.2 |
| Zirconium | 0.45 | -- |
| Other Impurities, total | -- | 0.30 |
| Magnesium | remainder | |

4. **CONDITION:**

- 4.1 **Die and Hand Forgings:** Precipitation heat treated.

- 4.2 **Forging Stock:** As fabricated.

5. **TECHNICAL REQUIREMENTS:**

- 5.1 **Die Forgings:**

- 5.1.1 **Tensile Properties:**

- 5.1.1.1 **Forgings 3 in. and Under in Thickness:** Test specimens machined from forgings after heat treatment with axes approximately parallel to forging flow lines or from prolongations on the heat treated forgings shall conform to the following requirements:

| | |
|--|------------|
| Tensile Strength, psi | 42,000 min |
| Yield Strength at 0.2% Offset or at 0.0120 in. in 2 in. Extension Under Load ($E = 6,500,000$), psi | 26,000 min |
| Elongation, % in 2 in. or 4D | 7 min |

- 5.1.1.1.1 **Tensile properties in directions other than parallel to the forging flow lines shall be as agreed upon by purchaser and vendor.**

- 5.1.1.1.2 **Tensile properties of die forgings over 3 in. in thickness shall be as agreed upon by purchaser and vendor.**

- 5.2 Hand Forgings:**

- 5.2.1 **Tensile Properties:**

- 5.2.1.1 **Forgings 6 in. and Under in Thickness:** Test specimens taken with axes parallel to the forging flow lines in such a manner as to represent the center of the forgings shall conform to the following requirements:

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