

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS4490 C

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MAGNESIUM ALLOY CASTINGS, DIE AZ91 As Cast

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

2. **COMPOSITION:**

Aluminum	8.30 - 9.70
Zinc	0.40 - 1.00
Manganese	0.13 min
Silicon	0.30 max
Copper	0.10 max
Nickel	0.03 max
Other Impurities, total	0.30 max
Magnesium	remainder

3. **CONDITION:** As cast.

4. **QUALITY:**

4.1 Castings shall be uniform in quality and condition, sound, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts. Castings shall have smooth surfaces and shall be well cleaned.

4.2 Quality standards shall be as agreed upon by purchaser and vendor.

4.3 Castings shall not be repaired by plugging, welding or other methods, without written permission from the purchaser.

4.4 Castings shall not be impregnated, chemically treated or coated to prevent leaking, unless specified or allowed by written permission which states the method to be used. Impregnated castings shall be marked IMP.

5. **REPORTS:**

5.1 Unless otherwise specified, the vendor of castings shall furnish with each shipment three copies of a notarized report stating that the castings conform to the requirements of this specification. This report shall show the material specification number, purchase order number, part number, and quantity.

5.2 Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a notarized report showing the purchase order number, material specification number, contractor or other direct supplier of castings, part number, and quantity. When castings for making parts are produced or purchased by the parts vendor, that vendor shall inspect each shipment or lot of castings to determine conformance to the requirements of this specification, and shall include in the report a certification that the castings conform, or shall include copies of laboratory reports showing the results of tests to determine conformance.

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