

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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New York City

AMS 42900

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ALUMINUM ALLOY CASTINGS, DIE

9.5 Si .5 Mg (360)
As Cast

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. APPLICATION: For intricate die castings with thin sections used at relatively low stresses, and requiring good corrosion resistance.
3. COMPOSITION:

Silicon	9.0	- 10.0
Magnesium	0.4	- 0.6
Iron	2.0	max
Copper	0.6	max
Nickel	0.5	max
Zinc	0.5	max
Manganese	0.3	max
Chromium	0.25	max
Tin	0.1	max
Other Impurities, total	0.2	max
Aluminum		remainder

4. CONDITION: As cast.
5. QUALITY:
 - (a) 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 in which defects are revealed during fabrication will be subject to rejection. Castings shall have smooth surfaces and shall be well cleaned.
 - (b) Unless otherwise specified, castings shall be produced under radio-graphic control. This shall consist of radiographic examination of castings until proper foundry technique, which will produce castings free from harmful internal defects, is established for each mold, and of production castings as necessary to insure maintenance of satisfactory quality.
 - (c) Radiographic and other quality standards shall be as agreed between purchaser and vendor.
 - (d) Castings shall not be repaired by plugging, welding, or other methods without written permission from the purchaser.
 - (e) 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.
6. REPORTS:
 - (a) 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.