

CANCELLED

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 4292

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Revised

CAST ALUMINUM ALLOY Pressure Molded (Aluminum Silicoon)

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

2. COMPOSITION:

Silicon	10.0 - 11.5
Copper	0.15 max
Iron	0.8 max
Nickel	0.05 max
Manganese	0.05 max
Magnesium	0.05 max
Tin	0.05 max
Zinc	0.10 max
Other Elements	0.10 max
Aluminum	remainder

3. CONDITION: As cast by pressure molding process.

4. TEST BARS: (a) Tensile test bars shall be cast with each melt of castings unless otherwise specified. A melt shall consist of a furnace charge (1,000 lbs, or less) of metal as melted for pouring castings. Test bars are to be supplied with the castings when requested.

(b) The test bars representing the castings shall conform to the following:

Tensile strength, lbs per sq in.	39,000 min
Yield Strength, lbs per sq in.	21,000 min
Extension under load, inch in 2"	.0080
Elongation, percent in 2 inches	4.5 min

(c) Samples taken from castings supplied to this specification shall demonstrate 75% of the tensile and elongation requirements of the test bars.

5. QUALITY: (a) The castings shall be free from injurious blowholes, porosity, hard spots, shrinkage defects, cracks or other harmful defects. Material revealing defects during fabrication is subject to rejection.

(b) Castings when broken for fracture test must show a uniform composition and color and be free from oxide or other defects.

(c) Castings fabricated in accordance with these specifications may be subject to radiographic inspection for blowholes, porosity, shrinkage defects, cracks, and other internal defects.

5. QUALITY: (con't)

(d) Castings shall have a density of not less than 99.85% of the density of the melt from which they are poured. The method of determining the density of the castings and the preparation of the specimens for density comparison shall be approved by the purchaser.

(e) Castings shall not be repaired in any manner without written permission from the purchaser.

6. REPORTS: Unless otherwise specified, the manufacturer shall furnish three copies of a notarized report of the chemical composition representing the castings, the physical properties and minimum density guarantee of each melt of castings. This report shall include the results of test of each bar tested, melt number, part numbers, quantity of each part, material specification number and the purchase order number.
7. IDENTIFICATION: Each casting shall be identified in accordance with AMS 2804.
8. APPROVAL: A manufacturer shall not begin to supply parts to this specification until samples have been approved by the purchaser, and after approval, the composition and methods of manufacture shall not be changed without his permission.
9. REJECTIONS: Material not conforming to this specification or modifications specified on the drawing or the purchase order, is subject to rejection. If samples for verification are desired by the vendor, they must be claimed within three weeks. Rejected material or parts will be held a reasonable time, at vendor's risk, awaiting shipping instructions for the return of same for credit or replacement, as specified. Vendor shall pay all transportation charges.

NOTE: SIMILAR SPECIFICATIONS: Army Air Force Specification 11347; Alloy 13X; are listed for information only and shall not be construed as acceptable alternates unless all requirements of this AMS are met.