

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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New York City

AMS4855A

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BRONZE CASTINGS Copper Tin Lead Zinc

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

2. **COMPOSITION:**

⊕	Copper	81.0 min
	Tin	4.0-6.0
	Lead	4.0-6.0
	Zinc	4.0-6.0
	Nickel	1.0 max
	Iron	0.30 max
	Phosphorus	0.05 max
	Total Named Elements	99.50 min

3. **QUALITY:** (a) Castings shall be of uniform quality and condition, and free from defects detrimental to fabrication or to performance of the parts. If injurious defects are revealed during fabrication, castings shall be subject to rejection. Castings shall have smooth surfaces and shall be well cleaned.

⊕ (b) Castings when broken for the fracture test shall be ductile enough to show bending before rupture.

(c) Castings and parts made therefrom shall be subject to inspection by any method which will reveal defects.

⊕ (d) Castings shall not be repaired by plugging, welding, or other methods without written permission from the purchaser.

(e) Castings shall be of sufficient size to allow for finishing to blue-print requirements, but excessive size or weight will not be permitted.

4. **REPORTS:** (a) Unless otherwise specified, the vendor of castings shall furnish with each shipment three copies of a notarized report showing the results of tests made to determine conformance of the castings to this specification. This report shall show the chemical composition of the castings and shall include the purchase order number, material specification number, part number, quantity and type of casting (chill, centrifugal, sand, etc.).

(b) 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, the vendor shall inspect each 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 the laboratory report showing the results of tests to determine conformance.