

AERONAUTICAL MATERIAL SPECIFICATION

AMS 4612

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

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Revised

N A V A L B R A S S Rods and Bars (Hard)

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

2. COMPOSITION:	Copper	59.0 - 62.0
	Tin	0.5 - 1.5
	Lead	0.30 max
	Iron	0.10 max
	Total Other Impurities	0.10 max
	Zinc	remainder

3. **CONDITION:** Hard temper conforming to the following physical properties:

Diameter or Width Across Flats	Tensile Strength (min.)	Yield Strength at 0.2% Set or at Extension Indicated (min.)	Elongation in 2 inches Under Load (min.)	Reduction of Area (min.)
Inches	lb. per sq. in.	lb. per sq. in.	inch in 2 inches per cent	per cent
1 and less	67,000	45,000	0.0100	22
Over 1 to 2.5 incl.	62,000	37,000	0.0090	25
Over 2.5	54,000	25,000	0.0074	35

4. **QUALITY:** The material shall be uniform in color, quality and temper, clean, sound, smooth, commercially straight, and free from foreign material and all internal and external defects which adversely affect its strength, use, or machinability. If material defects are revealed while machining the parts, the material is subject to rejection.

5. **TOLERANCE:** The commercial tolerances specified in A.S.T.M. B21-40T shall apply.

6. **REPORTS:** Unless otherwise specified, the manufacturer shall supply three copies of a notarized report stating that the chemical composition, and the physical properties of the material are within the requirements specified. This report shall include the purchase order number, material specification number, size and quantity.

7. **IDENTIFICATION:** The material shall be identified by painting each length on or near the ends with the standard color or combination of colors adopted for it, or as agreed upon by the manufacturer and the purchaser.

8. **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 the vendor's risk, awaiting shipping instructions for the return of same for credit or replacement, as specified. Vendor shall pay all transportation charges.