AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 4612 A

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N A V A L B R A S S
Rods and Bars - Hard

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

2. COMPOSITION:

Copper	59.00 - 62.00
Tin	0.50 - 1.00
Lead	0.20 max
Iron	0.10 max
Zinc	remainder
Total named elements	99.90 min

3. CONDITION: (a) Hard temper conforming to the following physical properties:

Nominal Diameter or Distance Between Opposite Faces, Inches	Tensile Strength, psi, min	Yield Strength at 0.2% Offset or at Extension Indicated. psi, min	Extension Under Load, In. in 2 In.	Elongation, % in 4 D, min
Up to 1.0 incl.	67,000	45,000	0.0100	22
Over 1.0 to 2.5 incl.	62,000	37,000	0.0090	25
Over 2.5 to 3.5 incl.	54,000	25,000	0.0074	35
Over 3.5	54,000	22,000	0.0070	35

(b) Bars should have surface hardness as follows, but shall not be rejected on basis of hardness if tensile properties conform to requirements in (a) above.

	Diameter or Thickness, in.	Hardness, Rockwell B
Rounds:	Up to 1.00, incl.	75 - 95
	Over 1.00	70 - 90
Hexagons and Octagons:		
	Up to 1.00, incl.	70 - 90
	Over 1.00 to 2.50, incl.	65 - 85
	Over 2.50	60 - 80

