

AERONAUTICAL MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York 17, N.Y.

AMS 4615C

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SILICON BRONZE
95.5Cu - 3.2Si
Hard

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **FORM:** Rods and bars.
3. **APPLICATION:** Primarily for bearings and for fittings in hydraulic pressure lines using AMS 4665 tubing.
4. **COMPOSITION:**

Copper	94.8	min
Silicon	2.8	- 3.5
Manganese, Iron, or Zinc	1.6	max
Tin	0.7	max
Lead	0.05	max
Total Named Elements	99.5	min

Note. Lead in the range 0.20 - 0.8% may be added to the above composition when permitted by the purchaser. Lead shall be considered a named element, in such case, and the minimum copper requirement may be reduced by an amount equal to that of the lead present.

5. **CONDITION:** Cold finished and stress relieved if necessary, hard temper.

6. **TECHNICAL REQUIREMENTS:**

- 6.1 **Tensile Properties:**

Nominal Diameter or Distance Between Parallel Sides Inches	Yield Strength at 0.2% Offset or at Extension Indicated (E=15,000,000)				Elongation % in 4D, min
	Tensile Strength psi, min	Extension Under Load psi, min	Extension in. in 2 in.		
Rounds, Hexagons, Octagons, Squares					
0.25 and under	85,000	50,000	0.0107		8
Over 0.25 to 1.5, incl	85,000	50,000	0.0107		13
Rectangles, Thickness					
1.0 and under	65,000	--	--		25
Over 1.0 to 1.5, incl	60,000	--	--		25
Over 1.5 to 3.0, incl	50,000	--	--		25