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400 Commonwealth Drive, Warrendale, PA 15096-0001

# AEROSPACE MATERIAL SPECIFICATION

**SAE**

**AMS 4846B**

Issued AUG 1945  
Revised JUN 1951  
Cancelled FEB 2001

Superseding AMS 4846A

Tin Bronze Castings, Sand and Centrifugal  
86.5Cu - 11.2Sn - 2.0Zn  
As Cast

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**1. ACKNOWLEDGEMENT:**

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

**2. APPLICATION:**

Primarily for bearings.

**3. COMPOSITION:**

Copper	84.0 - 89.0
Tin	9.0 - 13.5
Zinc	1.0 - 3.0
Lead	1.0 max
Iron	0.15 max
Phosphorus	0.05 max
Total Named Elements	99.5 min

**4. CONDITION:**

As cast.

**5. TECHNICAL REQUIREMENTS:****5.1 Casting:**

A melt shall be the metal withdrawn from a batch furnace charge of 2000 pounds or less as melted for pouring castings.

**5.2 Hardness:**

5.2.1 Sand Castings: Shall have hardness not lower than Rockwell F 70 or equivalent.

5.2.2 Chill and Centrifugal Castings: Shall have hardness not lower than Rockwell F 80 or equivalent.

**5.3 Fracture Test:**

When castings are broken for fracture test, the fracture shall have uniform color and be substantially free from oxides, blowholes, porosity and other defects. Castings shall be sufficiently ductile to show some bending before rupture.