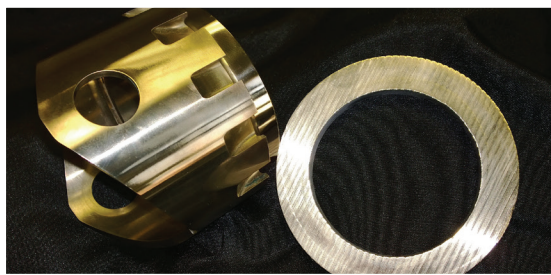




AEROSPACE ALLOYS

THE LEADING USA MANUFACTURER & MASTER DISTRIBUTOR OF BRASS, BRONZE, COPPER ALLOYS & MACHINED PARTS



HOUSTON, TEXAS

LORAIN, OHIO

TOULON, FRANCE

AMS 4533 (SOLIDS) / AMS 4535 (TUBES) (C17200) BERYLLIUM COPPER 'AT /TF00'



Available in solid bars

This copper alloy can have the highest mechanical properties of all copper alloys. This alloy also has excellent bearing qualities with extremely high compressive strength for high loading applications. It also has excellent abrasion and corrosion resistant properties, plus outstanding cryogenic characteristics (for space applications).

AMS 4590 (C63020) NICKEL ALUMINUM BRONZE

Available in solid & hollow bars

A special heat treatment process improves mechanical properties and strength-weight ratio beyond the range of commercial aluminum bronzes. For applications involving heavy loads, abrasive wear, friction, deformation and high temperatures.

AMS 4596 (C72900) SPINODAL BRONZE - SOLID BARS

Available in solid bars

This is a high performance alloy which can withstand high loads and operate under severe conditions. An excellent low friction, non galling, high strength, high performance, non-corrosive bronze alloy now available, to replace Beryllium Copper in many applications.

AMS 4598 (C72900) SPINODAL BRONZE - TUBES

Available in hollow bars

This is a high performance alloy which can withstand high loads and operate under severe conditions. An excellent low friction, non galling, high strength, high performance, non-corrosive bronze alloy now available, to replace Beryllium Copper in many applications.



AMS 4616 (C65620) SILICON BRONZE

Available in solid bars

A special high strength silicon bronze; the additional iron content provides added strength in conjunction with the self lubricity of the silicon for excellent bearing and load properties. Easily machined into ball bearing cage assemblies!

AMS 4634 (C64200) SILICON ALUMINUM BRONZE

Available in solid bars

This silicon aluminum bronze combines the self lubricity of the silicon with the higher mechanical properties of aluminum bronze and is sometimes used in place of AMS 4640 (C63000) Nickel Aluminum Bronze, where specifications permit a lower strength material offset by its lubricity. Typical applications involve valve stems, gears, marine and pole line hardware, wing pylons, bolts, nuts, bushings and valve body components.

AMS 4640 'H' (C63000) NICKEL ALUMINUM BRONZE

Available in solid bars and plates

A high strength, tough nickel aluminum bronze used where high mechanical properties are required. This alloy is a heat treatable aluminum bronze containing 5% nickel, that provides excellent bearing properties with good corrosion resistance. It is used extensively for aircraft landing gear bushings, bearings, and other components.



AMS 4842 (C93700) HIGH LEADED TIN BRONZE '80-10-10'



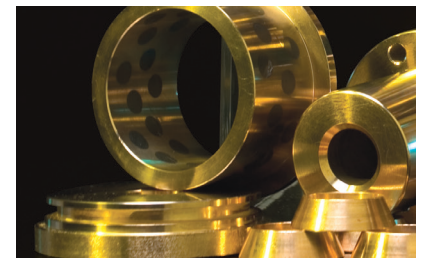
Available in solid & hollow bars

This is a high leaded tin bronze used for high speed and heavy pressure applications where corrosion resistance is necessary. The increased lead content provides added self lubricity within the family of tin bronzes.

AMS 4862 (C86300) MANGANESE BRONZE

Available in solid & hollow bars

This cast manganese bronze is typically supplied in continuous cast or centrifugally cast bars and tubes for high load gear and bearing applications. This material achieves over 110 ksi tensile strength and an elongation of 14% minimum. It is excellent in applications requiring high strength metal to metal wear.



AMS 4871 (C95400) ALUMINUM BRONZE '9C'

Available in solid & hollow bars, wear plates and special shapes

This is the most popular aluminum bronze and is used in many different industrial applications. This tough bearing material is used for heavy loads with good resistance to impact and wear. This grade of aluminum bronze is the most readily available high strength bearing material.

AMS 4880 'E' NICKEL ALUMINUM BRONZE

Available in solid & hollow bars

This is the most popular landing gear bushing material specified today along with AMS 4640 material. This continuous / centrifugal cast alloy is heat treated and exhibits high mechanical strengths which are similar to properties of AMS 4640. In many cases AMS 4880 can be substituted for AMS 4640 with the advantage of the material being available in tube form which provides great cost saving opportunities.



AMS 4881 'D' NICKEL ALUMINUM BRONZE

Available in solid & hollow bars

A special heat treatment process improves the mechanical properties beyond the range of commercial aluminum bronzes. This alloy is an extra high strength version of nickel aluminum bronze. It is used where parts require extra high strength and hardness with some ductility and toughness. Typical applications include military aircraft bushings involving heavy loads, abrasion and high deformation. The extra high strength characteristics provide extreme wear resistance for extreme loads, abrasive wear, and high impact landings (such as aircraft carrier landings). In many cases AMS 4881 can be substituted for AMS 4590 with the advantage of good cost savings.



C67300 (SAE J463, J461) MANGANESE BRONZE

Available in solid & hollow bars

This is a high strength manganese bronze with very good bearing and self lubricity properties. This alloy maintains high impact resistance with good machinability making it well suited for clutch bearings, shaft bushings, sleeve bearings, thrust bearings, pump parts, drive shafts, bearing pins, wear plates, gears and cams.



C94300 HIGH LEADED TIN BRONZE '70-5-25'

This extra high leaded bronze alloy is very suitable for high speed and light loads and is commonly used in fuel pump delivery systems.

UZ19AL6 (NFL 14707) AIRCRAFT BRONZE

Available in solid & hollow bars

This is a European high strength bearing bronze which is utilized by Airbus for landing gear components.

UN14AL2 (NLF 14702) AIRCRAFT BRONZE

This non-magnetic alloy has very high mechanical properties. This alloy is also resistant to sea-water corrosion and to oxidation. This alloy also has excellent fatigue resistant properties.

UA11N (BSB23, DTD 197) NICKEL ALUMINUM BRONZE

This Nickel Aluminum Bronze alloy has high mechanical properties and is oxidation and corrosion resistant in a saline mist atmosphere. Mainly used in the aeronautical industry for pump blocks, rings, bushings, and in bearings for landing gears.

SAE 841 (ASTM B-438, B-4831) SINTERED BRONZE

Available in solid & hollow bars

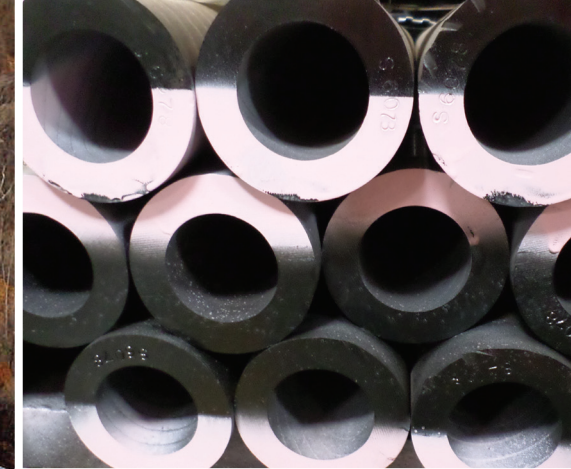
This oil impregnated bronze is one of the finest powder metal bearings on the market. The sintering process provides superior strength, reduced coefficient of friction, and uniform oil coating of the mating shaft during operation. Material is available in solid, cored, and rectangular bars from stock!





Aviva Metals is proud to have been awarded the AS9120B quality certification for our Ohio based machine shop. Coupled with ISO 9001:2015, our AS9120B certified quality system ensures a comprehensive quality system focused on areas directly impacting product safety and reliability for the aerospace industry and beyond.

Aviva Metals offers a range of alloys for aerospace applications. Aerospace alloys are used for a wide variety of applications, such as bearings and bushings in landing gears and cargo doors, wheel and brake components, wing and tail actuators, hydraulic pump components, pylons, and many other demanding applications where heavy loads, corrosion, and abrasion are issues of concern. We have the right copper alloys you and the entire aerospace industry demands ready for immediate shipment to anywhere in the US and the world.



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