

Material Information



Bronze C932

Introduction

Bronze C932, also known as SAE 660 or High-Leaded Tin Bronze, is a copper-tin-lead alloy widely used for bearings and other wear-resistant components. It offers good machinability, corrosion resistance, wear resistance, and anti-seizing properties, making it suitable for CNC machined bushings, bearings, thrust washers, and other precision mechanical parts.

Advantages

Good machinability, excellent wear resistance, good corrosion resistance, and strong anti-seizing properties. Bronze C932 also provides a low coefficient of friction, making it well suited to bearing and bushing applications where sliding contact and repeated movement are involved.

Disadvantages

Bronze C932 has relatively low mechanical strength compared with high-strength bronze alloys and many steels. Its lead content also makes it unsuitable for applications where lead-free materials are required, so the intended operating environment and applicable material requirements should be considered during material selection.

Tolerance

3DSPRO can manufacture and inspect to tight tolerances, including sub +/- 0.001" tolerances, per your drawing specifications and GD&T callouts.

Recommendation

The combination of machinability, wear resistance, corrosion resistance, and anti-seizing performance makes Bronze C932 suitable for CNC machined bearings, bushings, thrust washers, pump components, fittings, and other sliding or rotating mechanical parts. It is particularly appropriate for applications where reliable wear performance and ease of machining are important.

Material Specifications (For reference only.)	
Tensile strength	125MPa
Fatigue strength	110MPa
Elongation at Break	20%

Hardness	65 HB
Density	8.93 g/cm ³

Attention

Bronze C932 is available in different casting forms, including centrifugal, continuous, permanent-mold, and sand cast forms, and its mechanical properties can vary with the casting method. It is also not recommended for welding by common arc-welding processes. Because C932 contains lead, applications subject to lead-content restrictions should use a suitable alternative material.

Applications

3DSPRO finds people using Bronze C932 to make functional parts and prototypes in the following industries and applications.

Bearings and bushings:

Plain bearings, machine tool bearings, main spindle bearings, general-purpose bushings, linkage bushings, and wear sleeves.

Automotive parts and supplies:

Automotive fittings, fuel pump bushings, engine-related bushings, washers, and other wear-resistant mechanical components.

Industrial equipment:

Pump components, thrust washers, gears, fittings, machine parts, and other components requiring good wear resistance and corrosion resistance.

Hydraulic and mechanical systems:

Hydraulic press linings, stuffing boxes, pump fixtures, bearing components, and other sliding or rotating parts exposed to friction and wear.