

Little Falls Alloys Inc Wire Data-Sheet

Beryllium Copper (Age Hardenable)

Alloy 25

C17200

Alloy 25 Beryllium Copper is an age hardening alloy, which attains the highest strength of any copper base alloy. It may be age hardened after forming into springs, intricate forms or complex shapes. It has superb spring properties, corrosion resistance and stability as well as good conductivity and low creep.

Beryllium Copper (Tempered)

Alloy 25

C17200

Tempered Beryllium Copper is alloy 25 which has been age hardened and cold drawn in our plant. No further heat treatment is necessary except for a possible light stress relief. It is sufficiently ductile to wind on its own diameter and can be formed into springs and most shapes. Tempered wire is most useful where the properties of Beryllium Copper are desired but age hardening of finished parts is not desirable.

Beryllium Copper (Age Hardenable, Tempered)

Alloy 10

C17410 C17500

Alloy 10 Beryllium Copper is an age hardenable copper base alloy, which provides excellent electrical conductivity in combination with good physical properties and endurance strength. Provided either in the age hardenable condition or as tempered wire, it is used in springs and wire forms which are electrical conductors or where retention properties at elevated temperatures is important.



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Phosphor Bronze

Grades A, C and E

C51000, 52100, 50500, 50700

The Phosphor Bronzes are commonly used non-ferrous spring alloys. The combination of good physical properties, fair electrical conductivity and moderate cost make the Phosphor Bronzes desirable for many springs and contacts and a wide variety of wire forms where cost of properties does not prescribe Beryllium copper.

Nickel Grade

Alloy 205

Nickel wire and flat wire are used for numerous electronic applications. It is readily welded and soldered, is corrosion resistant and has good mechanical properties over a useful range of temperatures. It is used inside vacuum devices and as welded hook-up wire for electronic circuits subject to extremes of temperatures and stress. Most are supplied to special specifications according to the application.

Cupro Nickel

C71000, C72500

Cupro-nickels have good corrosion resistance to atmospheres and seawater. It retains its strength at higher temperatures than tin bronze or nickel silver. UNSC 72500 has good corrosion resistance. It is used for relay springs and connectors, particularly in communications equipment.



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Copper

Copper and oxygen free copper

C10200, C11000, C10700

OFHC Copper, being oxygen free, can be heated in a reducing atmosphere without embrittlement. It is therefore always specified for parts used in integrated circuits, ceramics, resistors, capacitors and other electrical devices that must have such treatment to ensure clean, degassed parts. It has higher fatigue properties and can be more severely formed than other pure coppers. C10700 resists softening after soldering.

Nickel Silver

10%, 12% and 18%

C74500, 75700, 76400

Nickel silvers are alloys of copper, nickel, zinc, and are classified by the nickel content. They are good spring materials with good formability and corrosion resistance. The pleasing silver grey is a factor in applications where appearance is important.

Brass

Alloy 70-30

C26000, C23000

Brass has been used over the years in a wide variety of compositions of copper and zinc. Today 70-30 cartridge brass is by far the most common composition, with sufficient versatility to cover brass applications.



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Zirconium Copper

C15000

Zirconium Copper is an alloy of pure copper with a very small amount of zirconium. It is an excellent electrical conductor with physical properties above those of pure copper. It also retains these properties at elevated temperatures.

Cadmium-Chromium-Copper

C18135 (PD-135)

PD-135 is an oxygen-free, heat treatable copper chromium alloy. It is stronger than hard copper and offers the ductility of soft copper. Suited for applications requiring high tensile strength and resistance to annealing at elevated temperatures such as electrical equipment electronics, welding and aerospace components.



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