

NC Alloy

We are pleased to announce that our unique new, beryllium-free NC 25 and NC 50 Alloys are now available for North American customers

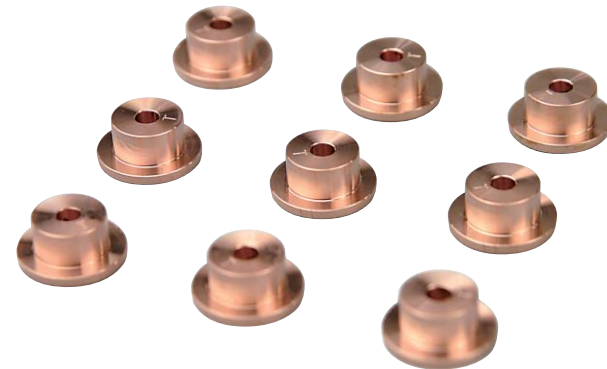


There are no alloys anywhere on the market that can compare with these revolutionary new types of “environmentally friendly” copper alloys, which contain nickel, silicon and chromium, but no beryllium. They boast uniform high hardness, tensile strength and yield strength, as well as high electrical conductivity. NC 25, with high tensile strength of 1 giga Pascal (145 ksi), is well-suited for machinery parts, and NC 50 features not only excellent electrical conductivity but superior thermal conductivity as well, and

offers savings in lubricant cost, shorter holding time, and quality improvement in die cast production. Both offer long life due to wear resistance.

Principal Applications

- Plunger tips
- Injection and blow-mold fabrication material
- High-performance engine parts
- High-performance brake material



WE ARE NOW SUPPLYING NC ALLOY TO ONE OF JAPAN'S BIG THREE AUTO MANUFACTURERS

Another of the Big Three is currently evaluating this alloy, with hopes that its use will contribute to environmental protection.

And one of the largest die cast machine makers in Japan has been conducting tests of NC Alloy, which is well-suited for plunger tips.

One promising application for this new alloy is for moving parts that are used under heavy conditions, such as in racing car engines.

Another is for brake material, due to the alloy's high hardness and conductivity, as well as its excellent wear resistance; NC Alloy was used as brake material in an amusement park ride in Tokyo, and demonstrated a life more than 10 times longer than conventional brake material!

Because of its superior characteristics, including high electrical conductivity and hardness, NC Alloy has been used for many other, small-to-large applications, such as welding LED crystal oscillator parts to lids for cell phones, resistance welding large anchors for ships, etc.

Copper Chromium

Our copper chromium is regarded as the standard of excellence in Japan

We made our reputation as a specialist in the development and production of high-strength, wear-resistant, heat-resistant, and high-electrical conductivity alloys. And one of the most successful of our products, which is widely regarded as the standard of excellence for all its market segments in Japan, is our copper chromium alloy. It features high hardness, excellent electrical and thermal conductivity, and superior heat resistance and anti-corrosion characteristics.

Principal Applications

- Electrodes for resistance welders
- Electrode discs for seam welders
- Bushings for seam welders
- Rectangular-shaped backing bars
- Backing plates under target metals for semiconductors and liquid crystal displays
- Base metal for gas turbine bearings
- Base metal for steam turbine bearings
- Molds for continuous casting machines
- Pulleys for copper wire annealing
- Switches and connectors for light & heavy electric machines
- Probe card reinforcement boards
- Parts for scarfing machines in steel making
- Target material for electromagnetic analyzers

Copper Beryllium

We offer copper beryllium for strength, spring, and high electrical conductivity

COPPER BERYLLIUM (High Beryllium Content)

Copper beryllium (high beryllium content: alloy 25, and alloy 165 [high strength alloy]) features the highest strength and hardness in the copper alloy family. Its strength is equal to that of specialty steel, but due to our unique heat treatment it also offers an exceptional spring quality, as well as excellent electrical conductivity, wear resistance, corrosion resistance, etc.

Principal Applications

- Electrodes for resistance welding
- Electrode wheels
- Welding machine parts (arms, holders, treatment devices, etc.)
- Parts, housing, and accessories for repeaters in undersea optical fiber cables
- Base material for dies and molds
- Bearings

COPPER BERYLLIUM (Low Beryllium Content)

Copper beryllium (low beryllium content: alloy 50 [high conductivity alloy]) features the highest conductivity in the beryllium-copper alloy family, and also offers an excellent heat-resistant quality and the right mechanical property for the manufacture of electrodes or machinery parts. We make bars by means of drawing, and the alloy can be forged or cast into any shape.

Principal Applications

- Electrodes for resistance welding
- Tip bases for resistance welders
- Gun arms for spot welding
- Screw adapters
- Base chips for insert cards
- Insert electrodes (renewable type)
- Bearing material
- Plunger tips for die-casting machines

Aluminum Bronze Alloy

Our aluminum-bronze alloy was first developed by our founder, Dr. Shigeru Hagino, back in the 1940's

He was a rare genius and many of the alloys he developed during that period have had a large impact on the alloy industry in Japan over the past 65 years. This alloy, which we have meticulously perfected over the decades, offers excellent mechanical properties, plus exceptional wear resistance, fatigue resistance, and anti-corrosion characteristics. In addition, it boasts a small specific gravity (7.5–7.6). It is often used in the landing gears of airplanes.

Principal Applications

- Shafts
- Bolts
- Nuts
- Springs
- Connecting rods
- Brackets
- Gears
- Bearings
- Liners
- Pistons
- Bushings, including for aircraft
- Joints
- Valve cocks
- Valve seats
- Pumps
- Machinery parts
- Non-magnetic bolts
- Non-magnetic engine materials
- Rotor wedges
- Materials for electric machine parts
- Overhead wiring metal fittings for trains
- Materials for ships

Special High-Strength Brass

Our special high-strength brass eliminates the need for heat treatment to increase the strength and hardness of castings

To achieve this result we add a variety of elements, such as Al, Fe, Mn and Ni, to the base metals Cu and Zn. We have given this special high-strength brass the name of “YMB alloy,” and it enjoys a very high reputation among our customers, due to its excellent mechanical properties, its excellent wear resistance and thermal conductivity, its superior casting quality, and its competitive price. We were able to develop this product only after much theoretical work and many years of experience in manufacturing.

Principal Applications

- Nuts
- Cogwheels or gear wheels
- Parts for wear resistance
- Parts for wear resistance and heavy loads at low speed
- Large-scale valves
- Stems
- Bushings (bearings)
- Cams
- Hydraulic pressure cylinder parts
- Slippers for rolling machines, etc.
- Parts for construction machinery

