C272 Brass - C27200 (Yellow Brass)

Overview

C272 Brass, also known as Yellow Brass or C27200, consists of approximately 63% copper and 37% zinc. The higher zinc levels improve its strength and ductility while maintaining good corrosion resistance. It has a full yellow color and is excellent for cold working applications. This alloy is the primary brass used for cold forming processes.

Chemical Composition

Element	Content (%)
Copper (Cu)	62.0 - 65.0
Zinc (Zn)	Balance (~37)
Lead (Pb)	≤ 0.10
Iron (Fe)	≤ 0.07
Nickel (Ni)	Trace
Tin (Sn)	Trace

Mechanical Properties

- Yield Tensile Strength: 59,500 psi
- Shear Strength: 43,500 psi
- Electrical Conductivity: 27.6% IACS at 68°F
- Thermal Conductivity: 67 Btu/sqft./ft. hr./°F at 68°F
- Full yellow color appearance

Physical Characteristics

- Excellent capacity for cold working
- Not adaptable to hot working
- Resistant to water, vapors, and most organic liquids
- May be susceptible to dezincification in corrosive environments

Applications

- Springs of various types
- Cold headed parts and fasteners
- Heat exchangers
- Electrical equipment
- Plumbing components
- Architectural design pieces

- Musical instruments

Standards

- UNS: C27200
- Also known as: CuZn37, Yellow Brass