



## Casting Material: Zinc Silicon Brass CuZn16Si4

**CuZn16Si4** is silicon brass alloy, it has high tensile property and good corrosion resistance property.

**CuZn16Si4** is defined in EN 1982. CuZn16Si4 has two types: CuZn16Si4-B (CB761S) and CuZn16Si4-C (CC761S)

Reference Casting Standard:

**EN 1982: Copper and copper alloys - Ingots and castings**

### Similar or Equivalent Specification

GB 1176 Grade ZCuZn16Si4

**CuZn16Si4-C(CC761S) Casting can be made by four casting processes:**

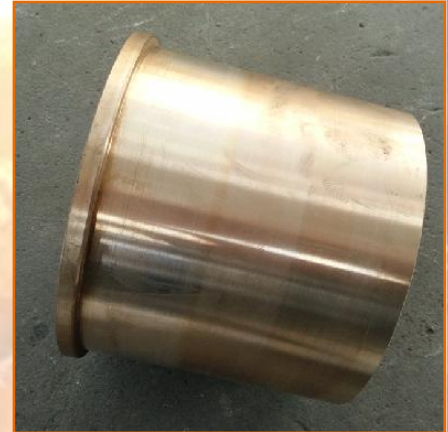
Sand Casting

Investment Casting

Permanent Mold Casting

Continuous Casting (Centrifugal Casting).

Pressure Die Casting



### CuZn16Si4 Chemical Composition Requirements:

Brass Grade			Chemical Composition/physical Properties, %							%, max				
Grade	Number	Denomination	Al	Cu	Ni	Pb	Si	Zn	Fe	Mn	P	Sb	Sn	
CuZn16Si4-B	CB761S	Ingots	0.10	78.5-82.0	1.0	0.6	3.0-5.0	Balance	0.5	0.2	0.02	0.05	0.25	
CuZn16Si4-C	CC761S	Casting	0.10	78.0-83.0	1.0	0.8	3.0-5.0	Balance	0.6	0.2	0.03	0.05	0.3	

**No Heat Treatment Requirement for CuZn16Si4 casting.**

### CuZn16Si4-C (CC761S) Casting Mechanical Properties in EN 1982

Brass Grade			Brass Mechanical Properties			
Grade	EN Number	Casting Process	Tensile Strength MPa, min	Yield Strength, MPa, min	Elongation, % min	Hardness, HBW, min
CuZn16Si4-C	CC761S	Sand Casting	400	230	10	100
		Permanent Mould Cast	500	300	8	130
		Pressure Die Cast	500	340	5	190
		Centrifugal Casting	500	300	8	130

### CuZn16Si4-C (CC761S) Casting Typical Application:

it's well applied in sea water, and high pressure more than 4.5MPa and high temperature more than 250 °C, such as Bearing, Valve body, Pump Impeller, Pump Bowl, Pipe Fittings, Marine hardware, ship propeller.

### What means of C and B or CC/CB Symbol in EN1982?

The material symbol designation is based on the designation system give in ISO 1190-14.

A suffix -B is added to the designation to identify material in the form of ingots, ingots begin with prefix CB, for example CuZn16Si4-B (CB761S). A suffix -C is added to the designation to identify material in the form of castings, castings begin with CC for example CuZn16Si4-C (CC761S)