

SPECIFICATIONS

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| Commercial | CZ130 |
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Brasses are alloys of Copper and Zinc. They may also contain small amounts of other alloying elements to impart advantageous properties. Brasses have high corrosion resistance and high tensile strength. They are also suited to fabrication by hot forging. Free machining grades of brass set the standard for machining, by which other metals are compared. Brasses are divided into two classes. The alpha alloys, with less than 37% Zinc, and the alpha/beta alloys with 37-45% Zinc. Alpha alloys are ductile and can be cold worked. Alpha/beta or duplex alloys have limited cold ductility and are harder and stronger. CZ130/CW624N is a duplex or alpha/beta alloy. Brass alloy CZ130/CW624N is a machinable brass with an attractive yellow lustre that is typically used in sections such as angle.

Applications

CZ130 is typically used in decorative applications such as:

- Shopfittings
- Machine parts
- Instruments
- Electrical appliances
- Hinges

CHEMICAL COMPOSITION

EN 12167:2011
CW624N Brass

| Element | % Present |
|----------------|---------------|
| Copper (Cu) | 55.00 - 57.00 |
| Aluminium (Al) | 0.05 - 5.00 |
| Lead (Pb) | 1.60 - 3.00 |
| Zinc (Zn) | Balance |

ALLOY DESIGNATIONS

CZ130/CW624N corresponds to the following designations:

ISO CuZn43Pb2Al / CuZn43Pb2
CW623N

SUPPLIED FORMS

CZ130/CW624N is typically supplied as Angle

- Bar
- Angle

GENERIC PHYSICAL PROPERTIES

| Property | Value |
|----------------------|------------------------|
| Density | 8.44 g/cm ³ |
| Melting Point | 890 °C |
| Thermal Conductivity | 109 W/m.K |

MECHANICAL PROPERTIES

| Property | Value |
|-------------------|--------------|
| Proof Stress | 150-220 MPa |
| Tensile Strength | 350-420 MPa |
| Elongation A50 mm | 20-30 % |
| Hardness Vickers | 90 to 120 HV |

Mechanical properties vary widely according to condition (soft/half hard/etc)

CORROSION RESISTANCE

CZ130/CW624N has good corrosion resistance in most environments.

COLD WORKING

CZ130/CW624N has a poor to fair rating for cold working.

HOT WORKING

Hot working of CZ130/CW624N is excellent. It is normally formed into complex profiles using hot extrusion.

The hot forgeability rating of CZ130 is good to excellent.

MACHINABILITY

CZ130/CW624N has a very good machinability rating of 90 compared to CZ121/CW614N Brass which is rated as 100.

WELDABILITY

Soldering of CZ130/CW624N is rated as excellent.

Oxyacetylene welding and gas shielded arc welding are not recommended.

Resistance welding is rated as fair.

Friction welding is rated as good.

CONTACT

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| Address: | Please make contact directly with your local service centre, which can be found via the Locations page of our web site. |
| Web: | www.amari-ireland.com |

REVISION HISTORY

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|-------------------|--------------|
| Datasheet Updated | 18 July 2019 |
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