

# CZ121 (CW614N)

## Technical Datasheet



Service. Quality. Value.

### Free Machining Brass

#### Applications

- All types of machined components
- Fasteners
- Extruded sections
- Window frames
- Plug pins
- Switch blocks

#### Product Description

CZ121 offers the highest possible machinability of any copper alloy. This alloy is a free machining brass with a 3% lead content - this addition of lead is finely dispersed throughout the materials microstructure which acts as both a lubricant and chip breaker. This results in giving the alloy its free machining characteristics. With a machinability rating of 100%, CZ121 is the standard by which all other copper based alloys are rated. The alloy also offers good corrosion resistance and strength.

#### Availability

Bar, hexagon, flat bar, square bar and hollow bar

#### Alloy Attributes

- Good corrosion resistance
- Easily soldered or brazed
- Good strength
- Highest machinability of any copper alloy

#### Related Material Specifications

- C38500
- CW614N
- BS2874
- 2.0401
- NF A51-105
- CuZn39Pb3
- CuZn40Pb3 (FR)

#### Corrosion Resistance

High resistance to corrosion.

#### Weldability

- |                                 |                   |
|---------------------------------|-------------------|
| Soldering                       | - Excellent       |
| Brazing                         | - Good            |
| Oxy-acetylene welding           | - Not Recommended |
| Gas-shielded arc welding        | - Not Recommended |
| Resistance welding: Spot & Seam | - Not Recommended |
| Butt                            | - Less suitable   |

#### Chemical Composition (weight %)

Weight (%)	Cu	Pb	Fe	Zn	Total Imps
min.	56.5	2.5	0.0	Rem	0.0
max.	58.5	3.5	0.3	Rem	0.7 max

#### Mechanical Properties

Tensile Strength (MPa)	360 - 580
Elongation %	15 - 25

#### Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

#### UK Service Centres:

Smiths Belfast 02895 908 897  
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#### Quality & Testing:



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