C17300 Beryllium Copper

Smiths Advanced Metals

Superb Machinability

Leaded beryllium copper (Alloy 33-25).



C17300 beryllium copper (Alloy 33-25) is a free-machining grade, offering high performance with superb machinability.

A lead addition of 0.20–0.60% gives much improved machinability over C17200 (Alloy 25), making it an excellent substitute where parts are machined in volume. The alloy has good hot working and excellent cold working properties, and is forged at 649–816 °C.

It can be soldered, brazed and welded by gas shielded arc, coated metal arc, spot, seam and butt methods. Extraction is required where grinding, welding or machining produces dust or fume.

We stock C17300 beryllium copper in a broad range of sizes and shapes.

Key Applications

- **Electrical & electronic connectors**
- **Current-carrying springs**
- **Welding electrodes**
- **Corrosion-resistant components**
- **High-volume turned parts**

Benefits

- **Superb machinability**
- **Excellent cold working properties**
- **Machinable substitute for C17200**

Grades / Specifications

- **UNS C17300 / CW102C**
- **ASTM B196**
- **ASTM B197**

* Chemical Composition (weight %)

	Be	Pb	Ni + Co	Ni + Co + Fe	Al	Si	Cu
min.	1.80	0.20	0.20				Rem
max.	2.00	0.60		0.60	0.20	0.20	

* As per ASTM B196

Metallurgical Support

Our UKAS Accredited Testing Laboratory is unique to the UK stockholding sector, and we provide comprehensive metallurgical support, including an extensive range of testing services.

Processing

We supply products in both metric and imperial sizes and process your beryllium copper in-house. We stock materials in closer incremental sizes, which results in the supply of engineering materials where the need to machine the raw material down is not required.

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ISO 9001 Quality Management Systems CERTIFIED
AS/EN 9100 Aviation Space and Defence CERTIFIED
EN 9120 Aviation Space and Defence CERTIFIED
UKAS TESTING 1930

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.

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