

CZ106 (CW505L)

Technical Datasheet



Brass Alloy

Service. Quality. Value.

Applications

- Heat exchanger tubes
- Chemical processing components
- Industrial pressings
- Deep drawn and spun components
- Chains and fastenings
- Fire extinguishers

Product Description

Often referred to as a cartridge brass, CW505L / CZ106 brass alloy is an alpha brass with less than 37% zinc which is a ductile alloy that can be cold worked. Coupled with high corrosion characteristics and high tensile strength, this free machining brass includes a number of small alloying elements to provide advantageous properties. With an excellent combination of strength and ductility this grade of material is used for its excellent cold workability and superior deep drawing properties.

Cold Working

Excellent - the alloy is used in extreme deep drawing and cold working applications.

Alloy Attributes

- Good corrosion resistance
- Optimum combination of strength & ductility for alpha brasses
- Excellent deep drawing characteristics
- Superb cold forming properties

Related Material Specifications

CZ106 / CW505L correspond to the following designation but may not be a direct equivalent: CuZ30

Corrosion Resistance

Good

Availability

Sheet

Weldability

Soldering	Very Good
Brazing	Very Good
Oxy-acetylene welding	Not Recommended
Gas-shielded arc welding	Not Recommended
Resistance welding: Spot & Seam	Not Recommended
Butt	Fair

Chemical Composition (weight %)

Weight (%)	Cu	Ni	Sn	Pb	Al	Zn	Other
min.	69.0						
max.	71.0	0.30	0.10	0.05	0.02	Balance	0.10

Mechanical Properties

	Min.	Max.
Proof Stress	90 MPa	430 MPa
Tensile Strength	270 MPa	480 MPa
Elongation $\sqrt{5.65}$	15%	-
Hardness Vickers	55 HV	155HV

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.

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