HOLME DODSWORTH METALS LIMITED
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The CW602N / CZ132 dezincification resistant brass (DZR Brass) is essentially a leaded arsenical brass with a duplex structure. As its name suggests it was originally developed to provide good resistance to dezincification type corrosion which is experienced by normal hot working brasses.

As well as the improved dezincification / corrosion resistance the CW602N / CZ132 also offers good strength levels, is readily machined and easily hot forged. Its primary usage over the years has been for water fittings that are produced by hot stamping and machining.

Related Specifications

CZ132	CW602N
CuZn36Pb2As	C35330

Chemical Composition

Copper	Rem
Lead	1.7-2.8%
Arsenic	0.08-0.15%
Zinc	35.0-37.0%
Tin	0.2% max
Iron	0.2% max
Total Impurities	0.5% max

Key Features

- Excellent resistance to dezincification
- Good strength and ductility
- High general corrosion resistance
- Ability to be machined and formed

Mechanical Properties (specification minima 18-40mm dia)

UTS	350 N/mm^2
Proof Strength	-
Elongation	22%

Typical Physical Properties

Melting Point	910°C
Density	8.43 g/cm^3
Specific Heat	377
Thermal conductivity (20°C)	117 W/m°K
Thermal expansion coefficient (20-200°C)	20.7 x 10^{-6} per °C
Electrical conductivity	26 % IACS
Electrical Resistivity	0.066 ohm mm^2/m
Modulus of Elasticity	106 KN/mm^2

Fabrication Properties

Hot Working Temperature Range	800-850°C
Hot Formability	Very good
Cold Formability	Good
Machinability rating (free cutting brass = 100)	75 %
Annealing Temp. Range	450-650°C
Stress Relieving Temp. Range	250-350°C

Joining Methods

Soldering	Excellent
Brazing	Good
Oxy-acetylene welding	Not recommended
Gas-shielded arc welding	Not recommended
Resistance welding	Not recommended

Typical Uses:

DZR Brass is typically used for hot formed and machined parts for water fittings and other fluid handling systems where mildly acidic or alkali solutions may be found, this utilises the materials de-zincification resistance.

This technical information is given by Holme Dodsworth Metals without charge and the user shall employ such information at their own discretion and risk. For more detailed technical advice on temper selection, fabrication, joining, machining, physical and mechanical data please contact us as space does not permit the listing of every feature of the material.