

Data Sheet

DZR BRASS - CZ132/CW602N

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 fitting that are produced by hot stamping and machining.

Key Features:	
Excellent resistance to dezincification	
Good strength and ductility	
High general corrosion resistance	
Ability to be machined and formed	
Related Specifications:	
CZ132	CW602N
CuZn36Pb2As	C35330
Chemical Composition:	
Copper	Rem
Lead	1.7 - 2.7%
Arsenic	0.08 - 0.15%
Zinc	35.0 - 37.0%
Tin	0.2% max
Iron	0.2% max
Total Impurities	0.5% max
Mechanical Properties:	
UTS	350 N/mm ²
Proof Strength	-
Elongation	25%

Typical Uses:

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

Typical Physical Properties:	
Melting point	910°C
Density	8.43 g/cm ³
Specific heat	377 J/Kg °K
Thermal conductivity	117 W/m°C
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: Spot and seam butt	Not recommended