

HIGH TENSILE BRASS CZ115

CZ115 / CW722R is a high tensile brass with a restricted aluminum content, enabling it to be soldered and brazed. This grade was developed to allow high strength brass components to be joined. Sometimes referred to as a manganese bronze the CW722R / CZ115 has additions of iron, tin and manganese that benefit the physical and mechanical attributes of the alloy.

The tin and iron additions impart higher strength levels, while the tin also improves the corrosion resistance. The CW722R / CW115 also offers good fabrication properties with a very good machinability rating, ease of hot forging and the ability to lend itself to finish plating.



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Equivalent Specifications:

Specifications	BS	EN	IS	JIS	DIN	ISO	Russian
Designation	CZ115	CW722R	IS320 HT1	-	-	-	-

Chemical Composition:

	Cu	Pb	Sn	Zn	Fe	Al	Mn	Other
Min	56.5	0.5	0.2	-	0.3	-	0.5	-
Max	58.5	1.5	0.8	Rem.	1.0	0.1	2.0	0.5

Fabrication Properties:

Joining Technique	Suitability
Soldering	Very Good
Brazing	Very Good
Oxy-acetylene welding	Not Recommended
Gas-shielded arc welding	Not Recommended
Resistance welding: Spot and Seam	Not Recommended
Hot Working Temperature Range	700-750°C
Hot Formability	Very Good
Cold Formability	Poor

Machinability rating (free cutting brass = 100)	75%
Annealing Temp. Range	425-600°C
Stress Relieving Temp. Range	225-350°C

Physical Properties:

Melting Point – Liquidus °F	1650
Melting Point – Solidus °F	1724
Density lb/cu in. at 68°F	0.304
Specific Gravity	8.42
Electrical Conductivity% IACS at 68°F	18
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	50.87
Coefficient of Thermal Expansion 68-21210 ⁻⁶ per °F (68 – 212°F)	20 x 10 ⁻⁶
Specific Heat Capacity Btu/ lb /°F at 68°F	0.09

Sizes Available:

TUBES	6.35 mm to 110mm
ROUND WIRES	1 mm to 11mm
ROUND RODS	1.2 to 250 mm
HEX RODS	Min. 5 mm to Max. 60 mm
SQUARE RODS	Min. 4 mm to Max. 60 mm
FLATS	Min. 4 mm thickness and max width of 120mm
PROFILES	As per customer drawings
HOLLOW RODS	Min Bore Size 20mm and Max OD 130mm