

CW706R

LEAD FREE BRASS

DESCRIPTION

CW706R is a dezincification resistant brass with excellent cold working properties and a pure α -structure. This alloy is used for applications in warm, acidic waters. CW707R is also suitable for coining, riveting, crimping, flanging, cold extrusion or other cold working operations.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	68.50	72.50
Pb	-	0.05
Fe	-	0.07
Sn	0.90	1.30
Ni	-	0.10
P	-	0.01
Mn	-	0.10
As	0.02	0.02
Total Others	-	0.30
Zn	Remainder	

MECHANICAL PROPERTIES (AS PER TEMPER R360)

Range (mm)	From	To	UTS Min (Mpa)	PS Min (Mpa)	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	1.5	75.00	360.00	140	45	-	-
Hex (A/F)	3	70.00	360.00	140	45	-	-
Square (A/F)	3	60.00	360.00	140	45	-	-

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PHYSICAL PROPERTIES

Electrical conductivity %IACS	25%
Thermal conductivity But ft/ft ² h°F	63
Thermal expansion coefficient (0-300 °C)	10 ⁻⁶ /K 19.7
Density	8.55 g/cm ³
Modulus of elasticity (68 °F)	4100 (Kg/mm ²)

FABRICATION PROPERTIES

Technique	Suitability
Machinability (CuZn39Pb3 = 100 %)	30%
Capacity for being cold worked	Good
Capacity for being hot worked	Fair
Resistance welding (butt weld)	Good
inert gas shielded arc welding	Fair
Gas welding	Good
Hard soldering	Excellent
Soft soldering	Excellent
Melting range	890 - 970 °C
Hot working	680-780 °C
Soft annealing (1-3 h)	450-650 °C
Thermal stress relieving (1-3 h)	250-350 °C

TYPICAL USES

- > Architecture
- > Automotive
- > Builders Hardware
- > Consumer
- > Electrical
- > Fasteners
- > Industrial
- > Ordnance
- > Plumbing