

CW602N

LEADED BRASS

DESCRIPTION

CW602N a dezincification-resistant machining brass, is particularly suitable for use in warm, acidic waters. This material passes the dezincification test according to ISO 6509. For the manufacture of hot-stamped parts C35330 with better hot-working properties is recommended. To achieve dezincification resistance a heat treatment may be necessary after hot working.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	61.00	63.00
Pb	1.70	2.80
Sn	-	0.10
Fe	-	0.10
As	0.02	0.15
Al	-	0.05
Mn	-	0.10
Ni	-	0.30
Total Others	-	0.20
Zn	Remainder	

MECHANICAL PROPERTIES (AS PER TEMPER R320)

Range (mm)	From	To	UTS Min (N/mm ²)	UTS Max (N/mm ²)	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	6.00	40.00	350.00	150.00	25.00	90.00	-
Hex (A/F)	5.00	35.00	350.00	150.00	25.00	90.00	-
Square (A/F)	5.00	35.00	350.00	150.00	25.00	90.00	-

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PHYSICAL PROPERTIES

Melting Point	910°C
Density	8.43 g/cm ³
Specific Heat	377
Thermal conductivity (20°C)	117 W/m ² 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

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

TYPICAL USES

- Plumbing