

DESCRIPTION

CW601N: A ductile alloy with good machinability as well as bending and cold heading properties. Suitable for bicycle spoke nipples.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	62.00	63.50
Pb	1.60	2.50
Sn	-	0.10
Fe	-	0.10
Al	-	0.05
Ni	-	0.30
Total Others	-	0.10
Zn	Remainder	

MECHANICAL PROPERTIES ACCORDING TO EN12164 CW601N (AS PER TEMPER 400)

Range (Inch)	From	To	UTS Min (N/mm ²)	PS Min (N/mm ²)	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	2.00	20.00	400.00	200.00	12.00	-	-
Hex (A/F)	2.00	25.00	400.00	200.00	12.00	-	-
Square (A/F)	2.00	25.00	400.00	200.00	12.00	-	-



PHYSICAL PROPERTIES

Density (g/cm ³)	8.46
Electrical Conductivity % IACS at 68°F	26
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	67
Specific Heat Capacity (kJ/kgK)	0.377
Modulus of Elasticity in (Gpa)	105
Coefficient of thermal expansion at 20 °C (10 ⁻⁶ /K)	20.4
Coefficient of Thermal Expansion 68-57210 ⁻⁶ per °F (68 – 572°F)	885 – 910 °C
Hot working	700 – 800 °C
Soft annealing	450 – 650 °C
Thermal stress relieving	200 – 300 °C

FABRICATION PROPERTIES

Machinability	85%
Cold formability	good
Hot formability	good
Resistance welding	fair
Oxyacetylene welding	not recommended
inert gas shield arc welding	not recommended
Brazing	fair
Soldering	Excellent

TYPICAL USES

- > Automotive
- > Builders Hardware
- > Screws
- > Clamps
- > Bolts
- > Rivets

