

CW621N

LEADED BRASS

DESCRIPTION

CW621N is a lead free material which is however quite suitable for machining Due to its structural constitution. CW621N can be therefore used as a cost-effective Replacement for conventional lead-containing machining brass provided that it must not meet high requirements as regards mechanical properties and corrosion Resistance.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	55.50	59.00
Pb	0.20	0.80
Sn	-	0.30
Fe	-	0.30
Al	0.05	0.50
Ni	-	0.30
Total Others	-	0.20
Zn	Remainder	

MECHANICAL PROPERTIES ACCORDING TO BS2874 (AS PER TEMPER M)

No Mechanical properties for this alloy. Mechanical properties as agreed between punchers and supplier.



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PHYSICAL PROPERTIES

Electrical conductivity %IACS	31
Thermal conductivity W/(m·K)	139
Thermal expansion coefficient (0–300 °C)	$10^{-6}/K$ 21.70
Density	8.41 g/cm ³
Modulus of Elasticity	107 Gpa

FABRICATION PROPERTIES

Technique	Suitability
Machinability(CuZn39Pb3 = 100 %)	60%
Capacity for being cold worked	Poor
Capacity for being hot worked	Excellent
Resistance welding (butt weld)	Good
inert gas shielded arc welding	Fair
Gas welding	Fair
Hard soldering	Good
Soft soldering	Excellent
Melting range	870-900 °C
Hot working	650-750 °C
Soft annealing (1-3 h)	450-550 °C
Thermal stress relieving (1-3 h)	250-350 °C

TYPICAL USES

- Builders Hardware
- Consumer
- Building
- Industrial

