

# CW613N

# FORGING BRASS

## DESCRIPTION

CW613, brass, is a readily extrudable leaded alpha/beta brass with a small Tin addition, which gives little bit of strength and resistance to corrosion. The lead gives free cutting properties. CW613 is available as extruded rods and flats which are typically used in builders' hardware.

## CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	59.00	60.00
Pb	1.60	2.50
Sn	0.20	0.50
Fe	-	0.40
Al	-	0.10
Ni	-	0.30
Total Others	-	0.20
Zn	Remainder	

## MECHANICAL PROPERTIES ACCORDING TO EN12165 (AS PER TEMPER H070)

Range (Inch)	From	To	UTS Min	PS Min	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	1.5	75.00	-	-	-	70.00	170.00
Hex (A/F)	3.00	70.00	-	-	-	70.00	170.00
Square (A/F)	3.00	60.00	-	-	-	70.00	170.00
Rectangle (Thickness)	3.00	50.00	-	-	-	70.00	170.00



## PHYSICAL PROPERTIES

PHYSICAL PROPERTIES	METRIC	ENGLISH
Density	8.40 g/CC	0.303 lb/in <sup>3</sup>
CTE. linear	26.0µm/m-°C	14.4 µin/in-°F
Specific Heat Capacity	0.380 J/g-°C	0.0908 BTU/lb-°F
Thermal Conductivity	113 W/m-K	784 BTU-in/hr-ft <sup>2</sup> -°F
Melting Point	880-900 °C	1620 – 1650 °F
Solidus	880 °C	1620 °F
Liquidus	900 °C	1650°F

## FABRICATION PROPERTIES

Forming	Suitability
Machinability (CuZn39Pb3 = 100 %)	80.00%
Capacity for Being Cold Worked	Poor
Capacity for Being Hot Worked	Excellent

## TYPICAL USES

- > Architecture
- > Builders Hardware

