

# CW616N

## FORGING BRASS

### DESCRIPTION

CW616, brass, is a readily extrudable leaded alpha/beta brass with a small aluminium addition, which gives a bright golden colour. The lead gives free cutting properties. CW616 is available as extruded rods and flats which are typically used in builders' hardware.

### CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	57.00	59.00
Pb	1.00	2.00
Sn	-	0.20
Fe	-	0.20
Al	0.05	0.30
Ni	-	0.20
Total Others	-	0.20
Zn	Remainder	

### MECHANICAL PROPERTIES (AS PER TEMPER H080)

Range (mm)	From	To	UTS Min	PS Min	Elo Min (%)	Hardness Min (HV)	Hardness Max
Round (Dia)	1.5	75.00	-	-	-	80.00	170.00
Hex (A/F)	3.00	70.00	-	-	-	80.00	170.00
Square (A/F)	3.00	60.00	-	-	-	80.00	170.00
Rectangle (Thickness)	3.00	50.00	-	-	-	80.00	170.00

### PHYSICAL PROPERTIES

PHYSICAL PROPERTIES	ENGLISH
Density	0.303 lb/in <sup>3</sup>
CTE. linear	14.4 $\mu$ in/in- °F
Specific Heat Capacity	0.0908 BTU/lb°F
Thermal Conductivity	784 BTU-in/hr-ft <sup>2</sup> - °F
Melting Point	1620 -1650 °F
Solidus	1620 °C
Liquidus	1650 °F

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### FABRICATION PROPERTIES

Forming	Suitability
Machinability (CuZn39Pb3 = 100 %)	95.00%
Capacity for Being Cold Worked	Poor
Capacity for Being Hot Worked	Excellent

### TYPICAL USES

- Architecture
- Builders Hardware