

C38000

FORGING BRASS

DESCRIPTION

C38000, Section 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. C38000 is available as extruded rods and flats which are typically used in builders' hardware.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	55.00	60.00
Pb	1.50	2.50
Fe	-	0.35
Al	-	0.50
Sn	-	0.30
Total Others	-	0.50
Zn	Remainder	

MECHANICAL PROPERTIES ACCORDING TO ASTM B455 (AS PER TEMPER H02)

Range (Inch)	From	To	UTS Min (Ksi)	PS Min (Ksi)	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	0.1181	2.9527	48.00	16.00	15.00	-	-
Hex (A/F)	0.1181	2.7559	48.00	16.00	10.00	-	-

Range (Inch)	From	To	UTS Min (MPa)	PS Min (MPa)	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	1.5	75.00	330.00	110.00	15.00	-	-
Hex (A/F)	3.00	70.00	330.00	110.00	15.00	-	-



PHYSICAL PROPERTIES

PHYSICAL PROPERTIES	METRIC	ENGLISH
Density	8.40 g/CC	0.303 lb/in ³
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 ² -°F
Melting Point	880-900 °C	1620 – 1650 °F
Solidus	880 °C	1620 °F
Liquidus	900 °C	1650°F

FABRICATION PROPERTIES

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

TYPICAL USES

- > Architecture
- > Builders Hardware

