

# C37700

# FORGING BRASS

## DESCRIPTION

Brass is an alloy mainly consisting of copper and zinc. Brass alloys can be easily shaped and are available in various colors. Brass has high thermal conductivity. UNS C37700 forging brass alloys have good forgeability. They are available in the form of rod.

The following datasheet gives details about UNS C37700 brass alloys.

## CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	58.00	61.00
Pb	1.50	2.50
Fe	-	0.30
Total Others	-	0.50
Zn	Remainder	

## MECHANICAL PROPERTIES ACCORDING TO ASTM B124

Mechanical properties established by agreement between the manufacturers and the purchaser.

## PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1640
Melting Point - Solidus°F	1620
Densitylb/cu in. at 68°F	0.305
Specific Gravity	8.44
Electrical Conductivity% IACS at 68°F	27
Thermal ConductivityBtu/ sq ft/ ft hr/ °F at 68°F	69
Coefficient of Thermal Expansion 68-57210 <sup>-6</sup> per °F (68 - 572°F)	11.5
Specific Heat CapacityBtu/ lb /°F at 68°F	0.09
Modulus of Elasticity in Tensionksi	15000
Modulus of Rigidityksi	5600

## FABRICATION PROPERTIES

Technique	Suitability
Soldering	Excellent
Brazing	Good
Oxyacetylene Welding	Not Recommended
Gas Shielded Arc Welding	Not Recommended
Coated Metal Arc Welding	Not Recommended
Spot Weld	Not Recommended
Seam Weld	Not Recommended
Butt Weld	Fair
Capacity for Being Cold Worked	Poor
Capacity for Being Hot Formed	Excellent
Forgeability Rating	100
Machinability Rating	80



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## TYPICAL USES

- › Builders Hardware
- › Building
- › Consumer
- › Electrical
- › Industrial